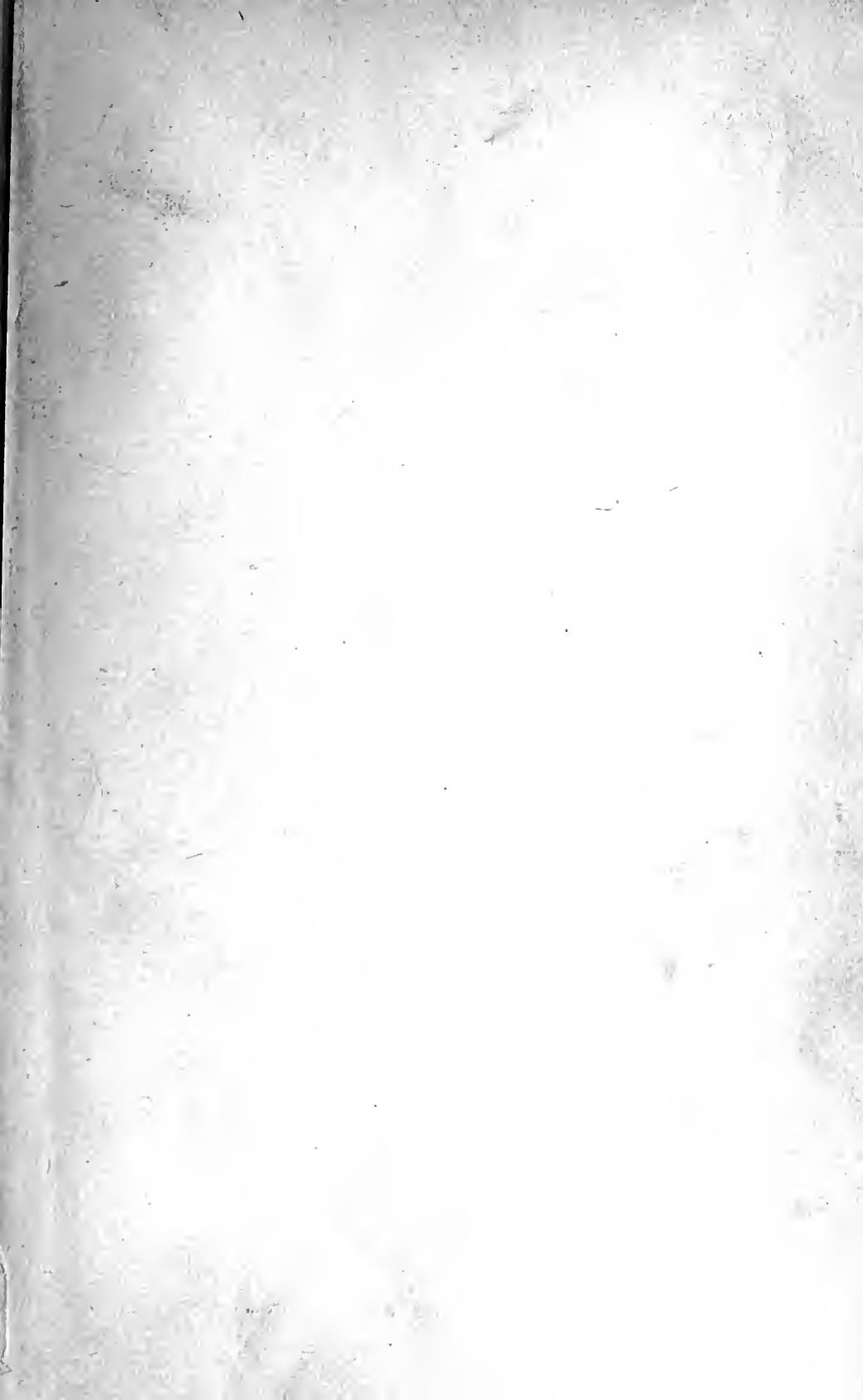


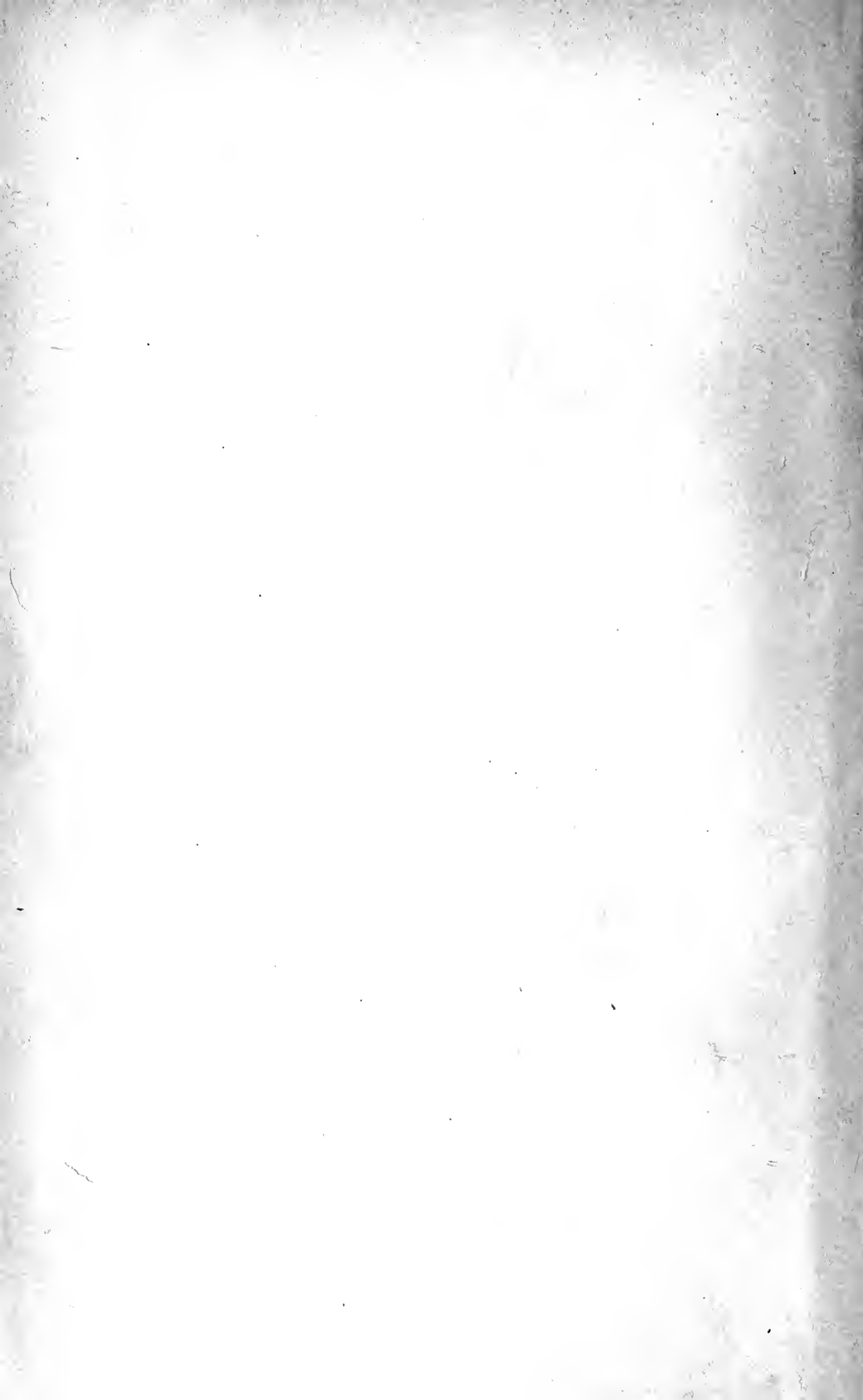
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THE
PHILOSOPHICAL REVIEW

EDITED BY
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OF THE SAGE SCHOOL OF PHILOSOPHY, CORNELL UNIVERSITY

WITH THE COÖPERATION OF
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VOLUME XVI—1907

94064
10/12/08

NEW YORK
THE MACMILLAN COMPANY

1907

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PRESS OF
THE NEW ERA PRINTING COMPANY
LANCASTER, PA.

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CONTENTS OF VOLUME XVI.

ARTICLES.

	PAGE
ALBEE, ERNEST. — Descriptive and Normative Sciences	40
BAKEWELL, CHARLES M. — The Ugly Infinite and the Good-for-nothing Absolute	136
EWALD, OSCAR. — Contemporary Philosophy in Germany (1906)	237
EWER, BERNARD C. — Determinism and Indeterminism in Motives	298
FULLER, B. A. G. — The Theory of God in Book <i>A</i> of Aristotle's Metaphysics	170
FULLERTON, GEORGE STUART. — In What Sense Two Persons Perceive the Same Thing	506
“ “ “ — The Right to Believe at One's Own Risk	408
HOLLANDS, EDMUND H. — Possibility and Reality	604
LALANDE, ANDRÉ. — Philosophy in France (1906)	357
LEIGHTON, JOSEPH A. — The Objects of Knowledge	577
LOVEJOY, ARTHUR O. — Kant's Classification of the Forms of Judgment	588
JAMES, WILLIAM. — The Energies of Men	1
MCGILVARY, E. B. — Pure Experience and Reality	266
PERRY, RALPH BARTON. — The Conception of Moral Goodness	144
PILLSBURY, W. B. — The Ego and Empirical Psychology	387
PROCEEDINGS of the Sixth Meeting of the American Philosophical Association	50
SABINE, GEORGE H. — The Concreteness of Thought	154
“ “ “ — The Material of Thought	285
TALBOT, ELLEN BLISS. — The Philosophy of Fichte in Its Relation to Pragmatism	488
TAWNEY, G. A. — Constitutive Consistency	21
THILLY, FRANK. — Causality	117
TURNER, WILLIAM. — Mnemonic Verses in a Ninth Century Ms.	519
WATSON, JOHN. — Plato and Protagoras	469

DISCUSSIONS.

CUNNINGHAM, G. W. — Dr. Ewer on the Freedom of the Will	616
DEWEY, JOHN. — Pure Experience and Reality: A Disclaimer	419

	PAGE
MCGILVARY, E. B. — Pure Experience and Reality: A Reassertion	422

REVIEWS OF BOOKS.

BAILLIE, J. B. — An Outline of the Idealistic Construction of Experience	538
HARVARD Psychological Studies, Vol. II	543
HOBHOUSE, L. T. — Morals in Evolution	527
JAMES, WILLIAM. — Pragmatism: A New Name for Some Old Ways of Thinking	624
KINKEL, WALTER. — Geschichte der Philosophie als Einleitung in das System der Philosophie, I. Teil	634
Laurie, S. S. — Synthetica: Being Meditations Epistemological and Ontological	639
LUQUET, G. H. — Idées générales de psychologie	328
MACCOLL, HUGH. — Symbolical Logic and Its Applications	190
MÜNSTERBERG, HUGO, Editor. — Harvard Psychological Studies, Vol. II	543
ORMOND, ALEXANDER THOMAS. — Concepts of Philosophy	425
PUFFER, ETHEL D. — The Psychology of Beauty	86
RAEDER, HANS. — Platons philosophische Entwicklung	184
REINKE, J. — Philosophie der Botanik	644
SANTAYANA, GEORGE. — The Life of Reason, Vols. III, IV, and V	195
SHEARMAN, A. T. — The Development of Symbolic Logic.	190
SIEBERT, OTTO. — Geschichte der neueren deutschen Philosophie seit Hegel	83
STERN, L. WILLIAM. — Person und Sache	322
STEWART, J. A. — The Myths of Plato	433
STUDIES in Philosophy and Psychology	312
STURT, HENRY. — Idola Theatri	78
TALBOT, ELLEN BLISS. — The Fundamental Principle of Fichte's Philosophy	437
WESTERMARCK, EDWARD. — The Origin and Development of the Moral Ideas, Vol. I.	70
WHITTAKER, THOMAS. — Apollonius of Tyana, and Other Essays	442
WUNDT, WILHELM. — Völkerpsychologie. II. Band, I. Teil	200

NOTICES OF NEW BOOKS.

AACH, NARZISS. — Über die Willenstätigkeit und das Denken	98
ABBOT, FRANCIS ELLINGWOOD. — The Syllogistic Philosophy, or Prolegomena to Science	447

	PAGE
ADAMS, ELIZABETH KEMPER. — The Æsthetic Experience: Its Meaning in a Functional Psychology.	660
ALEXANDER, HARTLEY BURR. — Poetry and the Individual	215
BAERE, J. I. — Greek Theories of Elementary Cognition from Alcmæon to Aristotle	205
BAYET, ALBERT. — La Morale scientifique	212
BELOT, GUSTAVE. — Études de morale positive.	446
BENN, ALFRED WILLIAM. — The History of English Rationalism in the Nineteenth Century	649
BOYCE-GIBSON, W. R. — Rudolf Eucken's Philosophy of Life	548
BRUNSCHVICG, LÉON. — Spinoza	336
COUTURAT, LOUIS. — Les principes des mathématiques	333
CROCE, BENEDETTO. — Lineamenti di una logica come scienza del concetto puro	334
DAVIDSON, THOMAS. — The Philosophy of Goethe's Faust	552
DELVOLVE, JEAN. — L'organization de la conscience morale	551
DEUSSEN, PAUL. — Outline of the Vedanta System of Philosophy according to Shankara	340
EISLER, RUDOLF. — Einführung in die Erkenntnistheorie	657
“ “ — Leib und Seele	207
EVELLIN, F. — La raison pure et les antinomies	651
FECHNER, G. T. — On Life after Death	209
GAULTIER, PAUL. — Le sens de l'art, sa nature, son rôle, sa valeur	340
GENTILE, GIOVANNI. — Giordano Bruno, Opere italiane, I.	450
GÖRLAND, ALBERT. — Der Gottesbegriff bei Leibniz	553
GROTENFELT, ARVID. — Geschichtliche Wertmassstäbe in der Geschichtsphilosophie bei Historikern und im Volksbewusst- sein	452
GUASTELLA, COSMO. — Saggi sulla teoria della conoscenza	91
HALDANE, ELIZABETH S. — Descartes: His Life and Times	94
JERUSALEM, WILHELM. — Einleitung in die Philosophie	212
KLEINPETER, H. — Die Erkenntnistheorie der Naturforschung der Gegenwart	214
LACOMBE, PAUL. — La psychologie des individus et des sociétés chez Taine, historien des littératures.	654
M'EWEN, BRUCE, Editor. — Dialogues Concerning Natural Re- ligion, by David Hume	338
MÜNSTERBERG, HUGO. — Science and Idealism.	95
NAYRAC, JEAN PAUL. — Physiologie et psychologie de l'attention.	450
OSTWALD, WILHELM. — Individuality and Immortality	209
PEARSON, NORMAN. — Some Problems of Existence	550

	PAGE
PIAT, CLODIUS. — Platon.	548
PILLSBURY, W. B. — L'attention	96
POWELL, ELMER ELLSWORTH. — Spinoza and Religion	339
ROGERS, ARTHUR KENYON. — The Religious Conception of the World	555
SEWALL, FRANK. — Reason in Belief	555
STOCKWELL, C. T. — The Evolution of Immortality	209
THOMAS, WILLIAM I. — Sex and Society	655
WENTSCHER, MAX. — Ethik. II. Theil	213
WISSENSCHAFTLICHE Beilage zum achtzehnten Jahresbericht (1905) der philosophischen Gesellschaft an der Universität zu Wien.	554
WISSENSCHAFTLICHE Beilage zum neunzehnten Jahresbericht (1906) der philosophischen Gesellschaft an der Universität zu Wien.	659

SUMMARIES OF ARTICLES.

ANGELL, J. R. — The Province of Functional Psychology.	568
BALDWIN, J. MARK. — On Truth	665
“ “ “ — Thought and Language.	565
BENTLEY, I. M. — The Psychology of Organic Movement.	348
BERGSON, H. — L'idée de néant	458
BERTRAND, A. — Esthétique et psychologie	671
BINET, A. — Les premiers mots de la thèse idéaliste	105
BLEULER, E. — Psychophysischer Parallelismus und ein bischen andere Erkenntnistheorie	221
BODE, B. H. — Realism and Pragmatism	108
BOODIN, JOHN E. — Space and Réalité	110
BOS, C. — Des éléments affectifs de la conception	348
BRADLEY, F. H. — On Floating Ideas and the Imaginary	219
“ “ “ — On Truth and Copying	665
BRUNSCHVICG, L. — Spinoza et ses contemporains (suite et fin)	463
CATOR, GERALD. — The Structure of Reality	664
CORNELIUS, H. — Psychologische Prinzipienfragen	102
COUTURAT, L. — La logique et la philosophie contemporaine	222
DEWEY, JOHN — The Experimental Theory of Knowledge	107
DUGOS, L. — La fonction psychologique du rire	569
DUPRAT, G. L. — Contre l'intellectualisme en psychologie	227
ERMONI, V. — Nécessité de la métaphysique	110
FORSYTH, T. M. — The Conception of the Unknown in English Philosophy	352

	PAGE
FOSTON, HUBERT. — The Constitution of Thought	220
FRANKL, W. M. — Zum Verständnis von Spinozas Ethik	349
FRISCHEISEN-KÖHLER, MAX. — Über die Grenzen der naturwissenschaflichen Begriffsbildung	343
GAULTIER, PAUL. — La critique d'art	230
“ “ — Qu'est-ce que l'art ?	230
GALLOWAY, GEORGE. — What Do Religious Thinkers Owe to Kant ?	670
HOERNLÉ, R. F. ALFRED. — Image, Idea, and Meaning	563
HÖFFDING, HARALD. — Le concept de la volonté	667
KOCH, EMIL. — Über naturwissenschaftliche Hypothesen	101
KOZLOWSKI, W. M. — L' 'a priori' dans la science	224
KUHLMANN, F. — On the Analysis of the Memory Consciousness	226
LALANDE, A. — Sur une fausse exigence de la raison dans la méthode des sciences morales	667
LE DANTEC, FÉLIX. — Les objections au monisme	109
LE ROY, E. — Comment se pose le problème de Dieu	566
LOVEJOY, A. O. — Kant's Antithesis of Dogmatism and Criticism.	104
LUQUET, G. H. — Logique rationnelle et psychologisme	458
MACKENZIE, J. S. — The New Realism and the Old Idealism	106
MARSHALL, HENRY RUTGERS. — The Time Quality	457
MAUXION, M. — L'intellectualisme et la théorie physiologique des émotions	111
MEDICUS, FRITZ. — Kant und die gegenwärtige Aufgabe der Logik	346
MENTRÉ, F. — Note sur la valeur pragmatique du pragmatisme	666
MITCHELL, FRANK D. — Mathematical Prodigies	668
MONTAGUE, W. P. — Current Misconceptions of Realism	459
NAVILLE, ADRIEN. — La morale conditionnelle	463
“ “ — La sociologie abstraite et ses divisions	229
NEWBOLD, W. R. — Philolaus	350
PALANTE, G. — Anarchisme et individualisme	671
PAULHAN, F. — L'échange économique et l'échange affectif	223
PEIRCE, C. S. S. — Prolegomena to an Apology for Pragmatism	564
PIAT, CLODIUS. — Valeur de la raison humaine	561
PILLON, F. — Sur l'imagination affective.	572
PITKIN, W. B. — Reasons for the Slight Esthetic Value of the 'Lower Senses'	112
PRICHARD, H. A. — A Criticism of the Psychologists' Treatment of Knowledge.	562

	PAGE
RIBOT, TH. — Comment les passions finissent	228
“ “ — Qu'est-ce qu'une passion?	111
ROEHRICH. — L'attention spontanée dans la vie ordinaire et ses applications pratiques	228
RUSSELL, JOHN E. — Pragmatism as the Salvation from Philosophic Doubt	567
SAGERET, J. — La commodité scientifique et ses conséquences	105
“ “ — De l'esprit magique à l'esprit scientifique	571
SALINGER, R. — Kants Antinomien und Zenons Beweise gegen die Bewegung	349
SCHILLER, F. C. S. — Pragmatism and Pseudo-Pragmatism	107
SHELDON, W. H. — Some Inadequacies of Modern Theories of Judgment	459
SORLEY, W. R. — Ethical Aspects of Economics	669
STOUT, G. F. — The Nature of Conation and Mental Activity	225
STUMPF, C. — Über Gefühlsempfindungen	346
URBAN, WILBUR M. — Definition and Analysis of the Consciousness of Value	460
VAN BIERVLIET, J. J. — La psychologie quantitative	570
VAN CAUWELAERT, F. — L'empirio-criticisme de Richard Avénarius	663
WEIDEL, K. — Mechanismus und Teleologie in der Philosophie Lotzes	351
WERNICK, GEORG. — Der Wirklichkeitsgedanke	455, 560

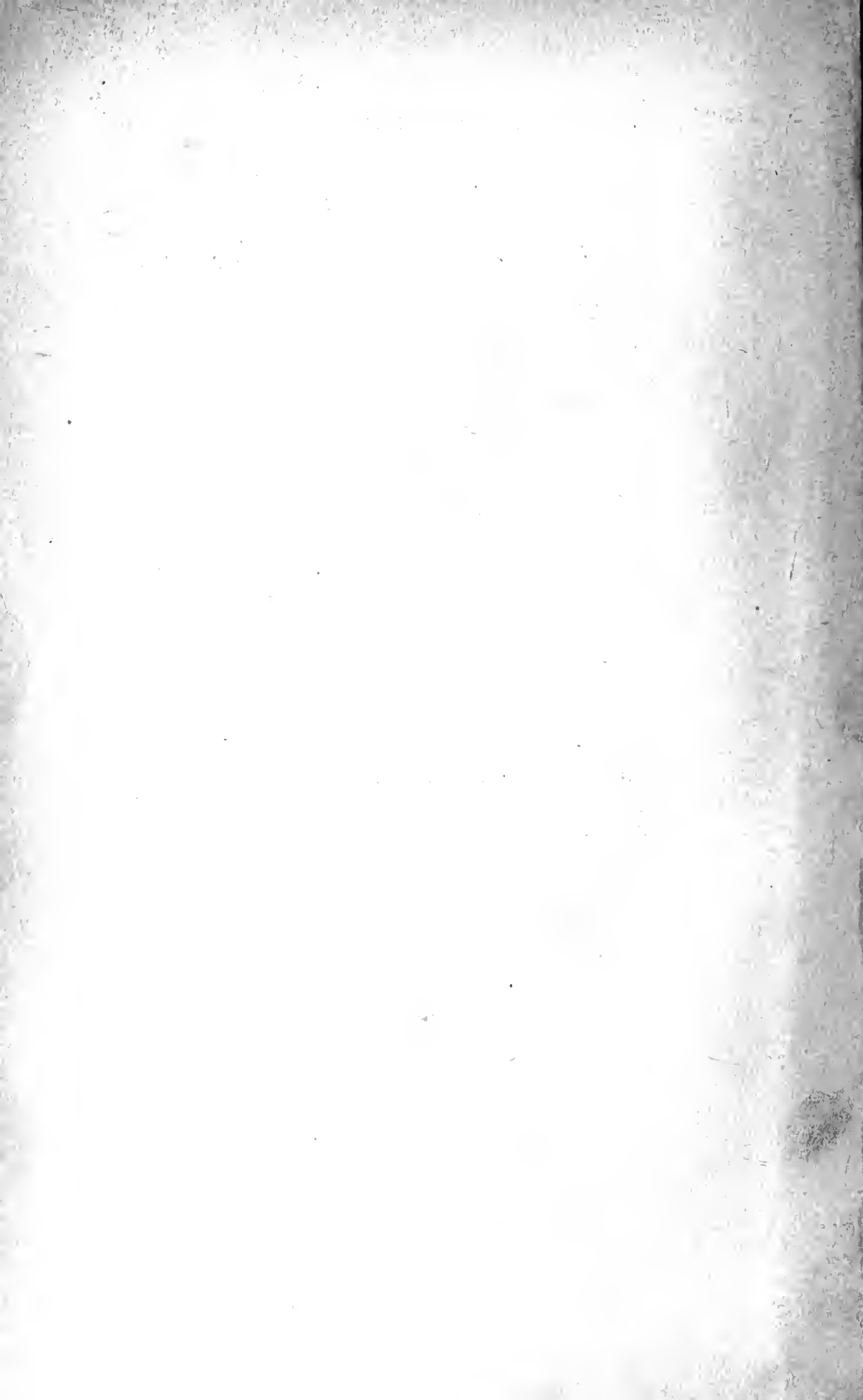
NOTES.

ADLER, FELIX	465
ALBEE, ERNEST	573
BAIRD, J. W.	573
BAWDEN, H. HEATH	573
CAIRD, EDWARD	465
CANTONI, SENATORE CARLO	113
CARLETON, JOHN	113
COLVIN, STEPHEN S.	573
COOK, HELEN D.	465
CULTURA FILOSOFICA, LA	233
FERREE, CLARENCE E.	465
FICHTE, J. G.	113
FISCHER, KUNO	113, 573
FRANZ, SHEPHERD IVORY	354
FRASER, A. CAMPBELL	113

CONTENTS.

ix

	PAGE
GARMAN, CHARLES	232
HART, CHARLES EDWARD	114
HOCKING, W. E.	354
HOLLANDS, EDMUND H.	465
IRONS, DAVID	232
JAMES, WILLIAM	233
JUVALTA, PROFESSOR	113
DE LAGUNA, THEODORE	465
MEUMANN, ERNST.	354
MILLER, DICKINSON S.	233
MÖBIUS, P. J.	233
MORANDO, GIUSEPPE	113
NEWLIN, W. J.	465
PALMER FELLOWSHIP, THE ALICE FREEMAN	465
PITKIN, WALTER B.	354
PSYCHOLOGICAL CLINIC, THE	354
REVUE DES SCIENCES PHILOSOPHIQUES ET THÉOLOGIQUES	113, 233
RILEY, I. WOODBRIDGE	233
RIVISTA FILOSOFICA	113
RIVISTA ROSMINIANA	113
SABINE, GEORGE H.	233
SANTAYANA, GEORGE	573
SMITH, WALTER	233
SOUTHERN SOCIETY FOR PHILOSOPHY AND PSYCHOLOGY	114
STUART, HENRY	354
TIJDSCHRIFT VOOR WIJSBEGEERTE	465
WHITNEY, G. W. T.	573
WITMER, LIGHTNER	354
WRIGHT, HENRY W.	465
ZELLER, EDUARD	354



THE
PHILOSOPHICAL REVIEW.

THE ENERGIES OF MEN.¹

WE habitually hear much nowadays of the difference between structural and functional psychology. I am not sure that I understand the difference, but it probably has something to do with what I have privately been accustomed to distinguish as the analytical and the clinical points of view in psychological observation. Professor Sanford, in a recently published "Sketch of a Beginner's Course in Psychology," recommended "the physician's attitude" in that subject as the thing the teacher should first of all try to impart to the pupil. I fancy that few of you can have read Professor Pierre Janet's masterly works in mental pathology without being struck by the little use he makes of the machinery usually relied on by psychologists, and by his own reliance on conceptions which in the laboratories and in scientific publications we never hear of at all.

Discriminations and associations, the rise and fall of thresholds, impulses and inhibitions, fatigue, — these are the terms into which our inner life is analyzed by psychologists who are not doctors, and in which, by hook or crook, its aberrations from normality have to be expressed. They can indeed be described, after the fact, in such terms, but always lamely; and everyone must feel how much is unaccounted for, how much left out.

When we turn to Janet's pages, we find entirely other forms of thought employed. Oscillations of the level of mental energy, differences of tension, splittings of consciousness, sentiments of insufficiency and of unreality, substitutions, agitations and anxieties, depersonalizations — such are the elementary conceptions

¹ Delivered as the Presidential Address before the American Philosophical Association at Columbia University, December 28, 1906.

which the total view of his patient's life imposes on this clinical observer. They have little or nothing to do with the usual laboratory categories. Ask a scientific psychologist to predict what symptoms a patient must have when his 'supply of mental energy' diminishes, and he can utter only the word 'fatigue.' He could never predict such consequences as Janet subsumes under his one term 'psychasthenia' — the most bizarre obsessions and agitations, the most complete distortions of the relation between the self and the world.

I do not vouch for Janet's conceptions being valid, and I do not say that the two ways of looking at the mind contradict each other or are mutually incongruous ; I simply say that they are *incongruent*. Each covers so little of our total mental life that they do not even interfere or jostle. Meanwhile the clinical conceptions, though they may be vaguer than the analytic ones, are certainly more adequate, give the concreter picture of the way the whole mind works, and are of far more urgent practical importance. So the 'physician's attitude,' the 'functional psychology,' is assuredly the thing most worthy of general study to-day.

I wish to spend this hour on one conception of functional psychology, a conception never once mentioned or heard of in laboratory circles, but used perhaps more than any other by common, practical men — I mean the conception of the *amount of energy available* for running one's mental and moral operations by. Practically every one knows in his own person the difference between the days when the tide of this energy is high in him and those when it is low, though no one knows exactly what reality the term energy covers when used here, or what its tides, tensions, and levels are in themselves. This vagueness is probably the reason why our scientific psychologists ignore the conception altogether. It undoubtedly connects itself with the energies of the nervous system, but it presents fluctuations that cannot easily be translated into neural terms. It offers itself as the notion of a quantity, but its ebbs and floods produce extraordinary qualitative results. To have its level raised is the most important thing that can happen to a man, yet in all my reading I

know of no single page or paragraph of a scientific psychology book in which it receives mention — the psychologists have left it to be treated by the moralists and mind-curers and doctors exclusively.

Every one is familiar with the phenomenon of feeling more or less alive on different days. Every one knows on any given day that there are energies slumbering in him which the incitements of that day do not call forth, but which he might display if these were greater. Most of us feel as if we lived habitually with a sort of cloud weighing on us, below our highest notch of clearness in discernment, sureness in reasoning, or firmness in deciding. Compared with what we ought to be, we are only half-awake. Our fires are damped, our drafts are checked. We are making use of only a small part of our possible mental and physical resources. In some persons this sense of being cut off from their rightful resources is extreme, and we then get the formidable neurasthenic and psychasthenic conditions, with life grown into one tissue of impossibilities, that the medical books describe.

Part of the imperfect vitality under which we labor can be explained by scientific psychology. It is the result of the inhibition exerted by one part of our ideas on other parts. Conscience makes cowards of us all. Social conventions prevent us from telling the truth after the fashion of the heroes and heroines of Bernard Shaw. Our scientific respectability keeps us from exercising the mystical portions of our nature freely. If we are doctors, our mind-cure sympathies, if we are mind-curists, our medical sympathies are tied up. We all know persons who are models of excellence, but who belong to the extreme philistine type of mind. So deadly is their intellectual respectability that we can't converse about certain subjects at all, can't let our minds play over them, can't even mention them in their presence. I have numbered among my dearest friends persons thus inhibited intellectually, with whom I would gladly have been able to talk freely about certain interests of mine, certain authors, say, as Bernard Shaw, Chesterton, Edward Carpenter, H. G. Wells, but it wouldn't

do, it made them too uncomfortable, they wouldn't play, I had to be silent. An intellect thus tied down by literality and decorum makes on one the same sort of impression that an able-bodied man would who should habituate himself to do his work with only one of his fingers, locking up the rest of his organism and leaving it unused.

In few of us are functions not tied-up by the exercise of other functions. G. T. Fechner is an extraordinary exception that proves the rule. He could use his mystical faculties while being scientific. He could be both critically keen and devout. Few scientific men can pray, I imagine. Few can carry on any living commerce with 'God.' Yet many of us are well aware how much freer in many directions and abler our lives would be, were such important forms of energizing not sealed up. There are in everyone potential forms of activity that actually are shunted out from use.

The existence of reservoirs of energy that habitually are not tapped is most familiar to us in the phenomenon of 'second wind.' Ordinarily we stop when we meet the first effective layer, so to call it, of fatigue. We have then walked, played, or worked 'enough,' and desist. That amount of fatigue is an efficacious obstruction, on this side of which our usual life is cast. But if an unusual necessity forces us to press onward, a surprising thing occurs. The fatigue gets worse up to a certain critical point, when gradually or suddenly it passes away, and we are fresher than before. We have evidently tapped a level of new energy, masked until then by the fatigue-obstacle usually obeyed. There may be layer after layer of this experience. A third and a fourth 'wind' may supervene. Mental activity shows the phenomenon as well as physical, and in exceptional cases we may find, beyond the very extremity of fatigue distress, amounts of ease and power that we never dreamed ourselves to own, sources of strength habitually not taxed at all, because habitually we never push through the obstruction, never pass those early critical points.

When we do pass, what makes us do so?

Either some unusual stimulus fills us with emotional excite-

ment, or some unusual idea of necessity induces us to make an extra effort of will. *Excitements, ideas, and efforts*, in a word, are what carry us over the dam.

In those hyperesthetic conditions which chronic invalidism so often brings in its train, the dam has changed its normal place. The pain-threshold is abnormally near. The slightest functional exercise gives a distress which the patient yields to and stops. In such cases of 'habit-neurosis' a new range of power often comes in consequence of the bullying-treatment, of efforts which the doctor obliges the patient, against his will, to make. First comes the very extremity of distress, then follows unexpected relief. There seems no doubt that we are each and all of us to some extent victims of habit-neurosis. We have to admit the wider potential range and the habitually narrow actual use. We live subject to inhibition by degrees of fatigue which we have come only from habit to obey. Most of us may learn to push the barrier farther off, and to live in perfect comfort on much higher levels of power.

Country people and city people, as a class, illustrate this difference. The rapid rate of life, the number of decisions in an hour, the many things to keep account of, in a busy city-man's or woman's life, seem monstrous to a country-brother. He doesn't see how we live at all. But settle him in town; and in a year or two, if not too old, he will have trained himself to keep the pace as well as any of us, getting more out of himself in any week than he ever did in ten weeks at home. The physiologists show how one can be in nutritive equilibrium, neither losing nor gaining weight, on astonishingly different quantities of food. So one can be in what I might call 'efficiency-equilibrium' (neither gaining nor losing power when once the equilibrium is reached), on astonishingly different quantities of work, no matter in what dimension the work may be measured. It may be physical work, intellectual work, moral work, or spiritual work.

Of course there are limits: the trees don't grow into the sky. But the plain fact remains that men the world over possess amounts of resource, which only very exceptional individuals push to their extremes of use.

The excitements that carry us over the usually effective dam are most often the classic emotional ones, love, anger, crowd-contagion, or despair. Life's vicissitudes bring them in abundance. A new position of responsibility, if it do not crush a man, will often, nay, one may say, will usually, show him to be a far stronger creature than was supposed. Even here we are witnessing (some of us admiring, some deploring — I must class myself as admiring) the dynamogenic effects of a very exalted political office upon the energies of an individual who had already manifested a healthy amount of energy before the office came.

Mr. Sydney Olivier has given us a fine fable of the dynamogenic effects of love in a fine story called "The Empire Builder," in the *Contemporary Review* for May, 1905. A young naval officer falls in love at sight with a missionary's daughter on a lost island, which his ship accidentally touches. From that day onward he must see her again; and he so moves Heaven and earth and the Colonial Office and the Admiralty to get sent there once more, that the island finally is annexed to the empire in consequence of the various fusses he is led to make. People must have been appalled lately in San Francisco to find the stores of bottled up energy and endurance they possessed.

Wars, of course, and shipwrecks, are the great revealers of what men and women are able to do and bear. Cromwell's and Grant's careers are the stock examples of how war will wake a man up. I owe to Professor Norton's kindness the permission to read to you part of a letter from Colonel Baird-Smith, written shortly after the six weeks' siege of Delhi in 1857, for the victorious issue of which that excellent officer was chiefly to be thanked. He writes as follows:—

. . . "My poor wife had some reason to think that war and disease between them had left very little of a husband to take under nursing when she got him again. An attack of camp-scurvy had filled my mouth with sores, shaken every joint in my body, and covered me all over with sores and livid spots so that I was marvellously unlovely to look upon. A smart knock on the ankle-joint from the splinter of a shell that burst in my face, in itself a mere bagatelle of a wound, had been of necessity

neglected under the pressing and incessant calls upon me, and had grown worse and worse till the whole foot below the ankle became a black mass and seemed to threaten mortification. I insisted however on being allowed to use it till the place was taken, mortification or no; and though the pain was sometimes horrible, I carried my point and kept up to the last. On the day after the assault I had an unlucky fall on some bad ground, and it was an open question for a day or two whether I hadn't broken my arm at the elbow. Fortunately it turned out to be only a very severe sprain, but I am still conscious of the wrench it gave me. To crown the whole pleasant catalogue, I was worn to a shadow by a constant diarrhea, and consumed as much opium as would have done credit to my father-in-law.¹ However, thank God I have a good share of Tapleyism in me and come out strong under difficulties. I think I may confidently say that no man ever saw me out of heart, or ever heard one croaking word from me even when our prospects were gloomiest. We were sadly scourged by the cholera and it was almost appalling to me to find that out of twenty-seven officers present, I could only muster fifteen for the operations of the attack. However, it was done, and after it was done came the collapse. Don't be horrified when I tell you that for the whole of the actual siege, and in truth for some little time before, I almost lived on brandy. Appetite for food I had none, but I forced myself to eat just sufficient to sustain life, and I had an incessant craving for brandy as the strongest stimulant I could get. Strange to say, I was quite unconscious of its affecting me in the slightest degree. *The excitement of the work was so great that no lesser one seemed to have any chance against it, and I certainly never found my intellect clearer or my nerves stronger in my life.* It was only my wretched body that was weak, and the moment the real work was done by our becoming complete masters of Delhi, I broke down without delay and discovered that if I wished to live I must continue no longer the system that had kept me up until the crisis was past. With it passed away as if in a moment all desire to stimulate, and a perfect loathing of my late staff of life took possession of me."

¹ Thomas De Quincey.

Such experiences show how profound is the alteration in the manner in which, under excitement, our organism will sometimes perform its physiological work. The metabolisms become different when the reserves have to be used, and for weeks and months the deeper use may go on.

Morbid cases, here as elsewhere, lay the normal machinery bare. In the first number of Dr. Morton Prince's *Journal of Abnormal Psychology*, Dr. Janet has discussed five cases of morbid impulse, with an explanation that is precious for my present point of view. One is a girl who eats, eats, eats all day. Another walks, walks, walks, and gets her food from an automobile that escorts her. Another is a dipsomaniac. A fourth pulls out her hair. A fifth wounds her flesh and burns her skin. Hitherto such freaks of impulse have received Greek names (as bulimia, dromomania, etc.) and been scientifically disposed of as "episodic syndromata of hereditary degeneration." But it turns out that Janet's cases are all what he calls psychasthenics, or victims of a chronic sense of weakness, torpor, lethargy, fatigue, insufficiency, impossibility, unreality, and powerlessness of will; and that in each and all of them the particular activity pursued, deleterious though it be, has the temporary result of raising the sense of vitality and making the patient feel alive again. These things reanimate; they would reanimate *us*; but it happens that in each patient the particular freak-activity chosen is the only thing that does reanimate; and therein lies the morbid state. The way to treat such persons is to discover to them more usual and useful ways of throwing their stores of vital energy into gear.

Colonel Baird-Smith, needing to draw on altogether extraordinary stores of energy, found that brandy and opium were ways of throwing them into gear.

Such cases are humanly typical. We are all to some degree oppressed, unfree. We don't come to our own. It is there, but we don't get at it. The threshold must be made to shift. Then many of us find that an excentric activity — a 'spree,' say — relieves. There is no doubt that to some men sprees and excesses of almost any kind are medicinal, temporarily at any rate, in spite of what the moralists and doctors say.

But when the normal tasks and stimulations of life don't put a man's deeper levels of energy on tap, and he requires distinctly deleterious excitements, his constitution verges on the abnormal. The normal opener of deeper and deeper levels of energy is the will. The difficulty is to use it; to make the effort which the word volition implies. But if we *do* make it (or if a god, though he were only the god Chance, makes it through us), it will act dynamogenically on us for a month. It is notorious that a single successful effort of moral volition, such as saying 'no' to some habitual temptation, or performing some courageous act, will launch a man on a higher level of energy for days and weeks, will give him a new range of power.

The emotions and excitements due to usual situations are the usual inciters of the will. But these act discontinuously; and in the intervals the shallower levels of life tend to close in and shut us off. Accordingly the best practical knowers of the human soul have invented the thing known as methodical ascetic discipline to keep the deeper levels constantly in reach. Beginning with easy tasks, passing to harder ones, and exercising day by day, it is, I believe, admitted that disciples of asceticism can reach very high levels of freedom and power of will.

Ignatius Loyola's spiritual exercises must have produced this result in innumerable devotees. But the most venerable ascetic system, and the one whose results have the most voluminous experimental corroboration, is undoubtedly the Yoga system in Hindostan. From time immemorial, by Hatha Yoga, Raja Yoga, Karma Yoga, or whatever code of practice it might be, Hindu aspirants to perfection have trained themselves, month in and out, for years. The result claimed, and certainly in many cases accorded by impartial judges, is strength of character, personal power, unshakability of soul. But it is not easy to disentangle fact from tradition in Hindu affairs. So I am glad to have a European friend who has submitted to Hatha Yoga training, and whose account of the results I am privileged to quote. I think you will appreciate the light it throws on the question of our unused reservoirs of power.

My friend is an extraordinarily gifted man, both morally and

intellectually, but has an instable nervous system, and for many years has lived in a circular process of alternate lethargy and over-animation: something like three weeks of extreme activity, and then a week of prostration in bed. An unpromising condition, which the best specialists in Europe had failed to relieve; so he tried Hatha Yoga, partly out of curiosity, and partly with a sort of desperate hope. What follows is a short extract from a letter sixty pages long which he addressed me a year ago.

“ Thus I decided to follow Vivekananda’s advice: ‘ Practice hard: whether you live or die by it doesn’t matter.’ My improvised chela and I began with starvation. I do not know whether you did try it ever . . . but voluntary starvation is very different from involuntary, and implies more temptations. We reduced first our meals to twice a day and then to once a day. The best authorities agree that in order to control the body fasting is essential, and even in the Gospel the worst spirits are said to obey only those who fast and pray. We reduced very much the amount of food, disregarding chemical theories about the need of albumen, sometimes living on olive oil and bread; or on fruits alone; or on milk and rice; in very small quantities — much less than I formerly ate at one meal. I began to get lighter every day, and lost 20 pounds in a few weeks; but this could not stop such a desperate undertaking . . . rather starve than live as a slave! Then besides we practised *asana* or postures, breaking almost our limbs. Try to sit down on the floor and to kiss your knees without bending them, or to join your hands on the usually unapproachable upper part of your back, or to bring the toe of your right foot to your left ear without bending the knees . . . these are easy samples of posture for a Yogi.

“ All the time also breathing exercises: keeping the breath in and out up to two minutes, breathing in different rhythms and positions. Also very much prayer and Roman Catholic practices combined with the Yoga, in order to leave nothing untried and to be protected against the tricks of Hindu devils! Then concentration of thought on different parts of the body, and on the processes going on within them. Exclusion of all emotions, dry logical reading, as intellectual diet, and working out logical

problems . . . I wrote a Handbook of Logic as a *Nebenprodukt* of the whole experiment.¹

“ After a few weeks I broke down and had to interrupt everything, in a worse state of prostration than ever . . . My younger chela went on unshaken by my fate ; and as soon as I arose from bed I tried again, decided to fight it out, even feeling a kind of determination such as I had never felt before, a certain absolute will of victory at any price and faith in it. Whether it is my own merit or a divine grace, I cannot judge for certain, but I prefer to admit the latter. I had been ill for seven years, and some people say this is a term for many punishments. However base and vile a sinner I had been, perhaps my sins were about to be forgiven, and Yoga was only an exterior opportunity, an object for concentration of will. I do not yet pretend to explain much of what I have gone through, but the fact is that since I arose from bed on August 20, no new crisis of prostration came again, and I have now the strongest conviction that no crisis will ever return. If you consider that for the past years there has been not a single month without this lethargy, you will grant that even to an outside observer four successive months of increasing health are an objective test. In this time I underwent very severe penances, reducing sleep and food and increasing the task of work and exercise. My intuition was developed by these practices : there came a sense of certainty, never known before, as to the things needed by the body and the mind, and the body came to obey like a wild horse tamed. Also the mind learned to obey, and the current of thought and feeling was shaped according to my will. I mastered sleep and hunger, and the flights of thought, and came to know a peace never known before, an inner rhythm of unison with a deeper rhythm above or beyond. Personal wishes ceased, and the consciousness of being the instrument of a superior power arose. A calm certainty of indubitable success in every undertaking imparts great and real power. I often guessed the thoughts of my companion . . . we observed generally the greatest isolation and silence. We both felt an unspeakable joy in the simplest natural

¹ This handbook was published last March.

impressions, light, air, landscape, any kind of simplest food ; and above everything in rhythmical respiration, which produces a state of mind without thought or feeling, and still very intense, indescribable.

"These results began to be more evident in the fourth month of uninterrupted training. We felt quite happy, never tired, sleeping only from 8 P. M. to midnight, and rising with joy from our sleep to another day's work of study and exercise. . . .

"I am now in Palermo, and have had to neglect the exercises in the last few days, but I feel as fresh as if I were in full training and see the sunny side of all things. I am not in a hurry, rushing to complete ——."

And here my friend mentions a certain life-work of his own about which I had better be silent. He goes on to analyze the exercises and their effects in an extremely practical way, but at too great length for me to entertain you with. Repetition, alteration, periodicity, parallelism (or the association of the idea of some desirable vital or spiritual effect with each movement), etc., are laws which he deems highly important. "I am sure," he continues, "that everybody who is able to concentrate thought and will, and to eliminate superfluous emotions, sooner or later becomes a master of his body and can overcome every kind of illness. This is the truth at the bottom of all mind-cures. Our thoughts have a plastic power over the body."

You will be relieved, I doubt not, to hear my excentric correspondent here make connection at last with something you know by heart, namely, "suggestive therapeutics." Call his whole performance, if you like, an experiment in methodical self-suggestion. That only makes it more valuable as an illustration of what I wish to impress in as many ways as possible upon your minds, that we habitually live inside our limits of power. Suggestion, especially under hypnosis, is now universally recognized as a means, exceptionally successful in certain persons, of concentrating consciousness, and, in others, of influencing their body's states. It throws into gear energies of imagination, of will, and of mental influence over physiological processes, that usually lie dormant, and that can only be thrown into gear at

all in chosen subjects. It is, in short, dynamogenic; and the cheapest terms in which to deal with our amateur Yogi's experience is to call it auto-suggestive.

I wrote to him that I couldn't possibly attribute any sacramental value to the particular Hatha Yoga processes, the postures, breathings, fastings, and the like, and that they seemed to me but so many manners, available in his case and his chela's, but not for everybody, of breaking through the barriers which life's routine had concreted round the deeper strata of the will, and gradually bringing its unused energies into action.

He replied as follows: "You are quite right that the Yoga exercises are nothing else than a methodical way of increasing our will. Because we are unable to will at once the most difficult things, we must imagine steps leading to them. Breathing being the easiest of the bodily activities, it is very natural that it offers a good scope for exercise of will. The control of thought could be gained without breathing-discipline, but it is simply easier to control thought simultaneously with the control of breath. Anyone who can think clearly and persistently of one thing needs not breathing exercises. You are quite right that we are not using all our power and that we often learn how much we *can* only when we *must*. . . . The power that we do not use up completely can be brought [more and more] into use by what we call *faith*. Faith is like the manometer of the will, registering its pressure. If I could believe that I can levitate, I could do it. But I cannot believe, and therefore I am clumsily sticking to earth . . . Now this faith, this power of credulity, can be educated by small efforts. I can breathe at the rate of say twelve times a minute. I can easily believe that I can breathe ten times a minute. When I have accustomed myself to breathe ten times a minute, I learn to believe it will be easy to breathe six times a minute. Thus I have actually learned to breathe at the rate of once a minute. How far I shall progress I do not know. . . . The Yogi goes on in his activity in an even way, without fits of too much or too little, and he is eliminating more and more every unrest, every worry — growing into the infinite by regular training, by small additions to a task which has grown familiar. . . .

But you are quite right that religious crises, love-crises, indignation-crises, may awaken in a very short time powers similar to those reached by years of patient Yoga practice. . . . The Hindus themselves admit that Samadhi can be reached in many ways and with complete disregard of every physical training."

Allowance made for every enthusiasm and exaggeration, there can be no doubt of my friend's regeneration — relatively, at any rate. The second letter, written six months later than the first (ten months after beginning Yoga practice, therefore), says the improvement holds good. He has undergone material trials with indifference, travelled third class on Mediterranean steamers, and fourth class on African trains, living with the poorest Arabs and sharing their unaccustomed food, all with equanimity. His devotion to certain interests has been put to heavy strain, and nothing is more remarkable to me than the changed moral tone with which he reports the situation. Compared with certain earlier letters, these read as if written by a different man, patient and reasonable instead of vehement, self-subordinating instead of imperious. The new tone persists in a communication received only a fortnight ago (fourteen months after beginning training) — there is, in fact, no doubt that profound modification has occurred in the running of his mental machinery. The gearing has changed, and his will is available otherwise than it was. Available without any new ideas, beliefs, or emotions, so far as I can make out, having been implanted in him. He is simply more balanced where he was more unbalanced.

You will remember that he speaks of faith, calling it a 'manometer' of the will. It sounds more natural to call our will the manometer of our faiths. Ideas set free beliefs, and the beliefs set free our wills (I use these terms with no pretension to be 'psychological'), so the will-acts register the faith-pressure within. Therefore, having considered the liberation of our stored-up energy by emotional excitements and by efforts, whether methodical or unmethodical, I must now say a word about *ideas* as our third great dynamogenic agent. Ideas contradict other ideas and keep us from believing them. An idea that thus negates

a first idea may itself in turn be negated by a third idea, and the first idea may thus regain its natural influence over our belief and determine our behavior. Our philosophic and religious development proceeds thus by credulities, negations, and the negating of negations.

But whether for arousing or for stopping belief, ideas may fail to be efficacious, just as a wire at one time alive with electricity, may at another time be dead. Here our insight into causes fails us, and we can only note results in general terms. In general, whether a given idea shall be a live idea, depends more on the person into whose mind it is injected than on the idea itself. The whole history of 'suggestion' opens out here. Which are the suggestive ideas for this person, and which for that? Beside the susceptibilities determined by one's education and by one's original peculiarities of character, there are lines along which men simply as men tend to be inflammable by ideas. As certain objects naturally awaken love, anger, or cupidity, so certain ideas naturally awaken the energies of loyalty, courage, endurance, or devotion. When these ideas are effective in an individual's life, their effect is often very great indeed. They may transfigure it, unlocking innumerable powers which, but for the idea, would never have come into play. 'Fatherland,' 'The Union,' 'Holy Church,' the 'Monroe Doctrine,' 'Truth,' 'Science,' 'Liberty,' Garibaldi's phrase 'Rome or Death,' etc., are so many examples of energy-releasing abstract ideas. The *social* nature of all such phrases is an essential factor of their dynamic power. They are forces of detent in situations in which no other force produces equivalent effects, and each is a force of detent only in a specific group of men.

The memory that an oath or vow has been made will nerve one to abstinences and efforts otherwise impossible: witness the 'pledge' in the history of the temperance movement. A mere promise to his sweetheart will clean up a youth's life all over — at any rate for a time. For such effects an educated susceptibility is required. The idea of one's 'honour,' for example, unlocks energy only in those who have had the education of a gentleman, so called.

That delightful being, Prince Pueckler-Muskau, writes to his wife from England that he has invented "a sort of artificial resolution respecting things that are difficult of performance." "My device," he says, "is this: I give my word of honour most solemnly to myself to do or to leave undone this or that. I am of course extremely cautious in the use of this expedient, but when once the word is given, even though I afterwards think I have been precipitate or mistaken, I hold it to be perfectly irrevocable, whatever inconveniences I foresee likely to result. If I were capable of breaking my word after such mature consideration, I should lose all respect for myself — and what man of sense would not prefer death to such an alternative? . . . When the mysterious formula is pronounced, no alteration in my own views, nothing short of physical impossibility, must, for the welfare of my soul, alter my will. . . . I find something very satisfactory in the thought that man has the power of framing such props and weapons out of the most trivial materials, indeed out of nothing, merely by the force of his will, which thereby truly deserves the name of omnipotent." ¹

Conversions, whether they be political, scientific, philosophic, or religious, form another way in which bound energies are let loose. They unify, and put a stop to ancient mental interferences. The result is freedom, and often a great enlargement of power. A belief that thus settles upon an individual always acts as a challenge to his will. But, for the particular challenge to operate, he must be the right challengee. In religious conversions we have so fine an adjustment that the idea may be in the mind of the challengee for years before it exerts effects; and why it should do so then is often so far from obvious that the event is taken for a miracle of grace, and not a natural occurrence. Whatever it is, it may be a highwater mark of energy, in which 'noes,' once impossible, are easy, and in which a new range of 'yeses' gain the right of way.

We are just now witnessing — but our scientific education has unfitted most of us for comprehending the phenomenon — a very

¹ *Tour in England, Ireland, and France*, Philadelphia, 1833, p. 435:

copious unlocking of energies by ideas, in the persons of those converts to 'New Thought,' 'Christian Science,' 'Metaphysical Healing,' or other forms of spiritual philosophy, who are so numerous among us to-day. The ideas here are healthy-minded and optimistic; and it is quite obvious that a wave of religious activity, analogous in some respects to the spread of early Christianity, Buddhism, and Mohammedanism is passing over our American world. The common feature of these optimistic faiths is that they all tend to the suppression of what Mr. Horace Fletcher calls "fear thought." Fear thought he defines as "the self-suggestion of inferiority"; so that one may say that these systems all operate by the suggestion of power. And the power, small or great, comes in various shapes to the individual, power, as he will tell you, not to 'mind' things that used to vex him, power to concentrate his mind, good cheer, good temper, in short, to put it mildly, a firmer, more elastic moral tone. The most genuinely saintly person I have ever known is a friend of mine now suffering from cancer of the breast. I do not assume to judge of the wisdom or unwisdom of her disobedience to the doctors, and I cite her here solely as an example of what ideas can do. Her ideas have kept her a practically well woman for months after she should have given up and gone to bed. They have annulled all pain and weakness and given her a cheerful active life, unusually beneficent to others to whom she has afforded help.

How far the mind-cure movement is destined to extend its influence, or what intellectual modifications it may yet undergo, no one can foretell. Being a religious movement, it will certainly outstrip the previsions of its rationalist critics, such as we here may be supposed to be.

I have thus brought a pretty wide induction to bear upon my thesis, and it appears to hold good. The human individual lives usually far within his limits; he possesses powers of various sorts which he habitually fails to use. He energizes below his maximum, and he behaves below his optimum. In elementary faculty, in coördination, in power of inhibition and control, in every

conceivable way, his life is contracted like the field of vision of an hysteric subject — but with less excuse, for the poor hysteric is diseased, while in the rest of us it is only an inveterate *habit* — the habit of inferiority to our full self — that is bad.

Expressed in this vague manner, everyone must admit my thesis to be true. The terms have to remain vague ; for though every man of woman born knows what is meant by such phrases as having a good vital tone, a high tide of spirits, an elastic temper, as living energetically, working easily, deciding firmly, and the like, we should all be put to our trumps if asked to explain in terms of scientific psychology just what such expressions mean. We can draw some child-like psychophysical diagrams, and that is all. In physics the conception of 'energy' is perfectly defined. It is correlated with the conception of 'work.' But mental work and moral work, although we cannot live without talking about them, are terms as yet hardly analyzed, and doubtless mean several heterogeneous elementary things. Our muscular work is a voluminous physical quantity, but our ideas and volitions are minute forces of release, and by 'work' here we mean the substitution of higher *kinds* for lower *kinds* of detent. Higher and lower here are qualitative terms, not translatable immediately into quantities, unless indeed they should prove to mean newer or older forms of cerebral organization, and unless newer should then prove to mean cortically more superficial, older, cortically more deep. Some anatomists, as you know, have pretended this ; but it is obvious that the intuitive or popular idea of mental work, fundamental and absolutely indispensable as it is in our lives, possesses no degree whatever of scientific clearness to-day.

Here, then, is the first problem that emerges from our study. Can any one of us refine upon the conceptions of mental work and mental energy, so as later to be able to throw some definitely analytic light on what we mean by 'having a more elastic moral tone,' or by 'using higher levels of power and will' ? I imagine that we may have to wait long before progress in this direction is made. The problem is too homely ; one doesn't see just how to get in the electric keys and revolving drums that alone make psychology scientific to-day.

My fellow-pragmatist in Florence, G. Papini, has adopted a new conception of philosophy. He calls it the *doctrine of action* in the widest sense, the study of all human powers and means (among which latter, *truths* of every kind whatsoever figure, of course, in the first rank). From this point of view philosophy is a *Pragmatic*, comprehending, as tributary departments of itself, the old disciplines of logic, metaphysic, physic, and ethic.

And here, after our first problem, two other problems burst upon our view. My belief that these two problems form a program of work well worthy of the attention of a body as learned and earnest as this audience, is, in fact, what has determined me to choose this subject, and to drag you through so many familiar facts during the hour that has sped.

The first of the two problems is *that of our powers*, the second *that of our means*. We ought somehow to get a topographic survey made of the limits of human power in every conceivable direction, something like an ophthalmologist's chart of the limits of the human field of vision; and we ought then to construct a methodical inventory of the paths of access, or keys, differing with the diverse types of individual, to the different kinds of power. This would be an absolutely concrete study, to be carried on by using historical and biographical material mainly. The limits of power must be limits that have been realized in actual persons, and the various ways of unlocking the reserves of power must have been exemplified in individual lives. Laboratory experimentation can play but a small part. Your psychologist's *Versuchsthier*, outside of hypnosis, can never be called on to tax his energies in ways as extreme as those which the emergencies of life will force on him.

So here is a program of concrete individual psychology, at which anyone in some measure may work. It is replete with interesting facts, and points to practical issues superior in importance to anything we know. I urge it therefore upon your consideration. In some shape we have all worked at it in a more or less blind and fragmentary way; yet before Papini mentioned it I had never thought of it, or heard it broached by anyone, in

the generalized form of a program such as I now suggest, a program that might with proper care be made to cover the whole field of psychology, and might show us parts of it in a very fresh light.

It is just the generalizing of the problem that seems to me to make so strong an appeal. I hope that in some of you the conception may unlock unused reservoirs of investigating power.

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CONSTITUTIVE CONSISTENCY.

CONSISTENCY may be defined as the tendency of any self-determined system of activities to maintain itself.¹ The self involved is most concrete, namely, the reflective multipolar self-in-relations-to-other-selves of social experience. Types of consistency may be distinguished as habitual and accommodative, the former being a tendency to repeat and keep up present organization, the latter, a tendency to reorganize the reflective consciousness whenever the unity and continuity of experience demands it. The former is sameness in objects and motor processes; the latter is a readiness to abandon or remodel the old object, and to readjust the self, whenever greater unity and simplicity or the perfect continuity of experience may need it. The result of the two tendencies is the continual revamping of conceptions and re-articulation of the world which actually make up the course and content of reflective experience. Reflective experience is self-maintaining, and consistency is an immediate consciousness of that quality. The self needs a manifold content; but we also need continuity, harmony, and coherence. We need impulsiveness and spontaneity, but also the inhibition and control of impulse. We need variety, but know that without unity it were mere blind confusion and chaos.

These two *types* of self-maintenance are found in all the typical attitudes and activities of life. They appear within each of several distinguishable *kinds* of self-maintenance, that of judgment, of practical action, of purpose, etc. Let us, in this paper, consider the consistency which constitutes the world, the consistency of objective contents.

It is a familiar fact that no content is absolutely fixed and changeless. Quality changes and objects are continually losing and acquiring their attributes. Trees, stones, stars, governments, atoms, fairies, — nothing persists except as we choose so to regard it. Nothing permanent is given in experience, and when

¹ Cf. *Journal of Phil., Psych., and Sc. Meth.*, Vol. III, pp. 113 and 457.

we appeal to the evidences of the senses to prove the reality of any object, we actually appeal, not to the given qualitative factors of sense, but to reason or something far removed from sense. 'There is a spring beside the Hurricane trail.' 'How do you know?' 'Because I can again go and slake my thirst from it.' But the proof does not lie in the mere qualitative content of the experience. It lies also in the postulated continuity of the existence of the spring which consistency demands. This will appear from the following genetic classification of contents.

Content of experience may be either (1) the bare content of immediate experience, the flash of light in the night, the child's 'first' experience of the candle flame, or (2) a content which suggests other contents, as the hitching-post suggests other contents to the horse, or (3) contents which imply other contents having the significance of predictions and controls. The first is mere quality; the second is quality associated with other qualities empirically; the third is a manifold of qualitative contents organized and set over against the self as objects of reflection, contents arranged in series or systems corresponding point for point to the activities of self.

The first sort of content arises without meaning out of the continuum of existence. In the second an almost characterless continuum, illuminated here and there by some bright moving thing, shot through with pain, or grey-green with discomfort and hunger, has begun to break up and organize into a cosmos. Association and assimilation have begun, and those complex chains of ideas which are the simplest and most fundamental forms of thought. All contents presuppose conative attitudes and self-reference, but in neither of the two sorts of content just mentioned are these presuppositions contents. All content is the fruit of action, but in neither of these is the action self-centered or deliberate. Contents of the third order are only possible where the self has begun to function as the controlling factor of action. Self-reference is then no longer presupposed but actual. Self has become the most important determinant of the organization of contents. Contents are here permanent and coherent; they are objects with the individuality and interrelatedness of a

world. But the permanence and coherence are not mere qualities given, like colors, in sensation. They are demands made by the self upon the recurring elements of its experience. They characterize contents which consist with the self by sharing its unity and continuity. And they are not absolute. No attribute or combination of attributes, as such, possesses unity and continuity. When we ask, What is permanent? all we can say in answer is, That which recurs and abides, and this is no single nameable thing whatsoever. These traits belong to the accommodative rather than to the habitual type of consistency. They are prospective and demanded, while qualities are retrospective and given. The latter are, as a matter of fact, never recurrent or permanent.

As a principle of selection in thinking, the demand for consistency and self-maintenance is *a priori*. The object as such must consist with the self, and for this reason we find its consistency in it. It is not an object, but a mere fancy, unless it is continuous and harmonious with other objects in the unity of a permanent and orderly world. Constitutive consistency is objective as well as *a priori*. Hence the scientific and philosophical ideal of absolute truth and infallible judgment. This ideal contains all the essentials of constitutive consistency, abstracted from the correlative demands of other kinds of consistency. It is the absolute thought, the unconditioned intelligence. We turn to it with emotions of reverence and dependence for correction, sobriety, and commendation. Like other ideals, it is both habitual and accommodative, both understood and mysterious. So long as unidentified objects remain in the world, the ultimate demands of constitutive consistency remain mysterious, and a part of existence remains unrelated by correspondence to the self. The infallible judgment and completely intelligible world are as fundamental in the intellectual life as the notion of a regular law-abiding will is in the practical life. This defines an immediate motor attitude or passion, and it gives law to all particular judgments: 'So think that the principle of your judgment may be universally available for control.'

Hence the autonomy of the intellect. The infallible judgment

is really a demand of all judgment made upon itself, a demand which grows out of the fact that judgment is the controlling factor in a self-maintaining experience. Unconscious utility is perhaps the chief principle of selection in primitive thinking, but this demand for self-maintaining infallibility is as much more than unconscious utility as self-consciousness is more than an emotion of pleasantness or unpleasantness. The notion of an infallible judgment is that of one in which the ordinary tentative quality of the conjunction of fact and value is modified by the consciousness of an unerring technique. It is not the notion of a mind for which all questions are already answered, so much as that of a judgment for which all real questions are answerable, because the data of thought are known and the method of procedure is familiar. The ideal judgment is a postulate, a motor attitude, a pilot star. It is a demand that judgment possess a perfect technique and that this be not in any particular case violated or dethroned. If I fail to judge aright, I suffer not only inconvenience, pain, or death, but also the chagrin of incompetence in my own eyes. The individual recognizes not only that he would better judge aright, but also that he ought to do so. The reflective imperative is as categorical in the theoretic sphere as in the practical, and utilitarian sanctions are as hypothetical here as there.

With this introduction let us take, as the first form of constitutive consistency, objectivity. By this we mean permanence and coherence (both of them forms of continuity) in that which controls action. There are other connotations in the term, to be sure, but as a constitutive form of experience this seems to be its meaning. Your genuine object must abide from hour to hour; it must be the same for others as for me; it must harmonize and cohere with all other objects in the total content of experience. In this sense, objectivity spells publicity in the content of experience; and publicity is continuity. In both the child and the race the demand for continuity shows itself in assimilation. Contents of experience are assimilated to the self-type, as we have seen, before they are distinguished from the self as things. This is because objectivity depends for its origin upon what

might be called a social technique of judgment. All knowledge is at first anthropomorphic. Very slowly we have learned that trees do not feel, that the wind does not choose, that the sky has no passions, and that rivers flow indifferent to human good and ill. We have learned that things do not behave, like selves, in capricious and unpredictable ways. The general attitude of expecting certain events when other events occur, the attitude described in the mechanical conception of the world, develops slowly. In contrast to it the attitude of hesitation and uncertainty is formulated in the conception of free and teleological self-determination. Both are in the end objective, but objects marked by teleological behavior are unique in this, that among them we class ourselves. Neither is objective until a technique of judgment has developed so far as to free the mind from the practice of assimilating all things to a vague wilfulness.

The difference between the psychical and the physical is primarily a difference between two modes of behavior in objects, not a difference between an order of existence called subjective, which is absolutely distinct and independent, and another order called objective. For the purposes of the plain man, it is necessary to distinguish between the world, including his own body, and the mind. He is often more interested to know what is passing in the 'mind' of a man than to know what the latter is actually doing in the world. So the plain man constructs a system of ideas, images, purposes, impulses, motives, and dispositions behind the visible exterior of his fellow. He finds such a pictured world available for purposes of control in dealing with his fellow. So also the psychologist constructs a mind inside the organism, dependent on the nervous system and isolated by absolute chasms from other minds in other bodies. The mind is an instrument or tool for perfecting the organic life, each mental construct having its function in facilitating the process of adjustment. So also it is to the interest of the physiologist to conceive mental events as mere accompaniments or effects of neural events. But no one of these ways of representing mind can be taken as valid beyond the spheres of experience within which they are constructed. When we ask for the ultimate and universal relation of mind

and body, we are obliged to begin by rejecting the ordinary causal theories of interactionism, parallelism, and automatism, while at the same time recognizing their relative validities for the plain man, the psychologist, and the physiologist. The idea of two absolutely different worlds, the one material and the other mental, is metaphysically indefensible. Continuity is indispensable in a world. Mind and body cannot be two absolutely discrete contents in experience and be equally objective. When so conceived, the former ceases to be objective at all ; and this is one explanation of the subjective character of most modern idealism. We have followed Descartes in regarding these two as discrete. When continuity ceases between the parts of the world, subjectivism results.

It is, of course, one of the laws of consistent experience that its objects be isolated, individual, and permanent. The object of interest and attention is always unique. If it be a social or shareable thing and possess continuity, it is relatively independent of other objects, a 'this thing' distinct from 'the rest of the world.' To the plain man this may seem an exception to the law that continuity is essential to objectivity ; but no mere object is absolute. The next wave of sensory impulse disturbs the equilibrium of the moment and a new object is demanded. Experience contains a manifold of moments, each of which is from some point of view unique. Within each moment a dualism of retrospective and prospective factors is present, datum and ideatum, fact and value. Each object contains both, and each corresponds thus to the activities of the continuous self. The content of the world is a manifold of correspondences between self and the rest of the world. Meanings and values are links connecting fact with fact in the continuous context of existence. Contents are not to be conceived as absolute individuals, held together by some synthetic activity. They are rather to be regarded as an individual composed of individuals, a single world which is nevertheless manifold. Discreteness without continuity is chaos ; continuity without discreteness, an empty attitude.

In both its discreteness and its continuity, the self gets its own from its world. In its practical, common-sense aspect, the latter

is manifold, but in this aspect it corresponds to the interests and needs of the self. Its law may be set down as $x + 1$, and its extent is unlimited. We may even define manifoldness as mere plurality, divesting our minds of all subtlety in thinking of it, and still regard it as a form of consistency, as law of contents. It is the consistency of sensation, the need of variety, the individuality of parts. There are, however, two sorts of manifolds. Those formed according to the law $x + 1$ are on their surface discontinuous, like the series of whole numbers which correspond to them. Their elements are irreducible, while between any two elements there exists an infinite number of moments which do not belong to these manifolds. The transitions from element to element are not obvious. In taking an interest in any one, we ought on the face of it to exclude ourselves from all others. Such is the world as a mere manifold.

Nevertheless, the flight from element to element is actual. The transitions are as familiar as the elements. The latter cannot be absolutely individual, and we set ourselves the task of increasing the elements to fill in the gaps and discover the missing links. This is the task of discovering continuity in discreteness, corresponding to the continuity of the self. We need another sort of manifold, one of such nature that, in being interested in any one of its parts, we do not sacrifice the rest, one of such nature that the dividing element of interest belongs to either part and to both. This is the continuous manifold.

In the words of Poincaré: "A system of elements will form a continuum if we can pass from any one of them to any other by a series of consecutive elements such that each is indistinguishable from the preceding."¹ In a straight line, for example, a single point divides the whole into two parts such that every point in one part lies outside the other part, the dividing point may be assigned to either part, and both the line as a whole and all its parts are infinitely divisible. Between the elements of the system of whole numbers there are points which do not fall within the system, points which are not themselves whole numbers. This system is therefore a discontinuous manifold. If these were the

¹ *Science and Hypothesis*, G. B. Halstead's tr., 1905, p. 26.

only real numbers, it would follow that only those points on a straight line whose coördinates are whole numbers are real; and, in that case, the circle inscribed in a square and the diagonal of the square would not really intersect. Hence the system of real numbers described by Dedekind contains not only all whole numbers, but also all irrational or incommensurable numbers, and the real number system is continuous.

Every law of causation illustrates the necessity of continuity in discreteness. The antecedent, *C*, and the consequent, *E*, must be identical so far as to make the transition from one to the other continuous, but they cannot be really identical and present a genuine sequence at all. Again, how can one body act on another body at a distance? Newton held it to be impossible, and hence his corpuscular theory of light. On the other hand, how can two bodies act on each other if they are continuous? In the physical concept of contact, these two demands meet; but the mystery of the process grows on one until the word contact appears a name for our ignorance, unless we steady ourselves by the reflection that contact is consistent with the self, while neither absolute continuity nor absolute discreteness is so. The question of the reality of solids is a case in point. If real, they must be internally continuous and hence absolutely rigid. All actual solids are discrete with interstices between the parts; but then, what of the parts? Are there any irreducible parts of matter? Certainly atoms do not at present appear to be impenetrable. The arrow-argument of Zeno and others to prove that motion is not real presents the same sort of a problem. We might further ask whether force, ether, space, time, energy are continuous; and, if not, whether they are discrete. The question as to the existence of other minds, and the question as to the relation of the body to the mind, reduce at last to the old alternative of continuity and discreteness. We need unity, but also variety enough to save us from boredom and unconsciousness. We crave justice, but know that if absolute justice were once established so as to be the natural law of human action, moral experience would cease. At one time, the ideal of scientific exactness engrosses the mind and all effort is devoted to the manyness of the many. At

another, we crave system and classification, the reduction of manifolds to single terms, the arrangement of the many in ordered series. The more continuity we find in nature, the greater the manifoldness of the ends to which she contributes in human experience, the greater our freedom. The more unresolved discreteness there remains in nature, the fewer the ends to which the will is limited. And yet, in a world of dead monotony and sameness, a world without problems, the will would languish. There would be no more thrills and excitement.

If we look for other instances of the demand for consistency and self-maintenance among the constitutive forms of the world, perhaps the most obvious is that existence at large is a continuous manifold, is in fact no other than the self of the world as a whole. Discontinuous existence and discontinuous self are self-contradictory terms. The judging function demands this continuity as its necessary background. Existence has no gaps or chasms. The effort to think of a time when there was nothing, or a time when there will be nothing, involves the same weird paradox as the effort to think of any particular thing, say this mountain, or this government, or this mind, as nothing or coming from nothing. Nothing and non-being, as St. Augustine contends, prove to be something, namely, the absence of the particular thing whose negation we strive to represent. 'In the beginning God created all things out of nothing'; but the nothing *was*, it existed. What each thing really is, it is unconditionally, continuously.¹

Things, on the other hand, are superficially discrete. Each is an irreducible unit. Science tries to discover in this discontinuous world of things some principle of continuity. There must be such, as in any other case all the continuity would be subjective (a mark of self); all the discontinuity would be objective,

¹ An interesting application of the principle that, from its own point of view, everything is continuous, is to be found in Lincoln's Inaugural Address of March 4, 1861. Speaking of the perpetuity of the Union he says: "Perpetuity is implied, if not expressed, in the fundamental law of all national governments. It is safe to assert that no government proper ever had a provision in its organic law for its own termination. Continue to execute all the express provisions of our National Constitution and the Union will endure forever—it being impossible to destroy it except by some action not provided for in the instrument itself."

and their union in experience an absolute mystery. We relate object to object in continuous time, space, likeness, genesis, causation, ownership, purpose, energy, ether, government, morality, beauty, and so on, to fill in the gaps. Existence must have a continuous content corresponding to its own continuity. Herein lies the assurance of science and the motive of all her efforts to understand. To the metaphysically inclined, on the other hand, existence must somehow possess all the variety of its content; and the effort to derive a manifold world from a barren existence has failed again and again. Back of all science and all metaphysics is the certainty that every object of thought must satisfy the paradoxical demand of consistency, viz., that it be both continuous with all other objects of thought and yet distinct and separate from them. The attention lives in rhythms to which the objective manifold corresponds, but beneath attention is the universe of immediate existence. It continues in the vague self-awareness of feeling, when attention shifts. When the light of attention wanes, things pass into a realm of shades where they await a resurrection. The one abides, the many come and go. The many, as functions of past activities and present organization, are given; the one is prospective and demanded. Continuity is the assimilation of the object to self, the projected shadow of the self; discreteness is a function of organization and technique. The mind is not satisfied with either way of taking objects. From the manifold facts of the world, we pass to that continuous system of laws or principles in which and for which facts exist. *Fürsichsein* is continuous, *Füranderssein* is discrete. From its own standpoint everything is continuous. It is self who sings:

“They reckon ill who leave me out;
When me they fly, I am the wings;
I am the doubter and the doubt,
And I the hymn the Brahmin sings.”

Discreteness arises from that impersonal technique which distinguishes science from speculation and that which is from that which is to be.

But we have seen that mere discreteness is mere confusion. Self-maintenance does not demand that. Accordingly, all real

manifolds are ordered, and we shall do well to give some further attention here to the concept of order. Order is the form of constitutive consistency which makes those substitutions of contents possible upon which the complex experience of man and all the higher attainments of mind depend. Order and substitution constitute intelligibility and intelligence. Order is not necessary to the concept of manifoldness, but a manifold without order cannot exist. Even the contents of a dump-heap must take some order. Orders are of many kinds, one of the most striking and fundamental being that which existence itself takes on in reflection. We have seen that existence is a continuous manifold, infinitely divisible and of such nature that any point in it divides the whole into two mutually exclusive parts. Its order is always simple; there is but one way to pass from any point in it to any other, namely, forward. No point can occupy more than one position here, and no points or parts can be interchanged. Each point has only the significance of its place before its successors and after its predecessors in the manifold. Of course this order is time. If we make the succession of moments in time correspond to some uniform movement in space, we establish a useful periodicity and measure of what we call the same or equal periods of time. Really, no two periods are the same, however useful it may be by social agreement to so regard them. When we represent time by a line, by the uniform flow of water in a stream or a fountain, by the motion of the hands round the dial of a clock, by the flow of sand in an hour-glass, by the movement of a shadow over a plane, and so on, such correspondences make possible certain conventional substitutions of vast importance. Immediate experience gives us no means of measuring time, as the present of immediate experience may be a minute, a day, a decade, or ten thousand years, according to the conation which gives unity to the thought. The measurement of time rests upon the convention of letting the uniform movement of a body correspond to the passing of time, and this also is a form of self-maintenance or consistency.

Just as existence takes on the time order, so things as independent contents take on a space order. Time order, as we have

seen, is not reversible ; it is not necessary to the universality of existence that it should be so. The universality of an object, however, implies a reversible order of infinite directions. We must be able to approach and leave an object from an infinite number of other objects or contents. This means direction, position, distance (relative terms, all of them),—in short, space. The space manifold is primarily an order merely. As a social, public thing, it becomes a filler-in of gaps, a continuum. Time is a simple order, but an infinite number of ways leads from point to point in space. A single point suffices to divide the temporal order, while only a line can be so divided in space. A line will always divide a surface and a surface a solid, but there is nothing in time to correspond to these determinations.

All orders seem to be alike in one important respect, namely, they can always be increased by the addition of one more unit to the manifold, and the method of this increase is for each order constant. By a certain determination, time becomes a minute, by another, a second, and so on, and these determinations are always possible. They are not negations, as Spinoza would have said, so much as similar transformations, in the mathematical sense of the word. The generative formula, $x + 1$, may be said to be the law of all ordered series, the key and the symbol of intelligence, provided it be understood that 1 is related to x by a similar transformation.

The process of ordering objects in classes according to likenesses and differences, putting the classes into subsumptive relations of genera and species, is another of the fundamental forms of constitutive consistency. Each class as a whole corresponds to each of its members, so that we may do with each what we can do with every other, and do it far more conveniently than, without the classification, would have been possible. What, then, after so many centuries, is the relation of the universal to the particular? *Universalis ante rem, universalis post rem, universalis in re*, realism, nominalism, conceptualism, modified realism, modified nominalism, etc., — how the phrases awaken echoes of long ago! How heroically they were raised there, the battle cries of legions of devout men! How our man-

ners and institutions have been affected by them! The mediæval church strove nobly to make its relation to its members one of correspondence. Strange that she should have conceived the relation so vaguely! Time is related to this moment, tree to this tree, by a transformation made possible by the organization of reflective experience and realized in judgment and action. These correspondences make possible the substitutions which economize the energy and conserve the freedom of the individual.

Whenever a given manifold has been made to correspond to the series of rational numbers, it is possible to use the numbers in either of three fundamental senses, the ordinal, the cardinal, and the multiplicative. Each number defines the place of its corresponding element in the series as a whole, the extent of the series up to that point and the number of times a given unit is taken to produce the series. It is always possible, by taking any one element as a conventional unit, to measure the entire manifold by it. All measurement rests upon conventional standards chosen for their convenience. This completes the elements of quantity and shows the method of its determination.

But a manifold may vary from point to point in either of two ways. The variations may obey a definite law, or they may not. In the former case, we can calculate the quantity of variation from a given standard at any given point in the manifold, and this gives us degree of intensity and extension. This is the type of all ordered physical manifolds. These are of such a nature that transitions from point to point are mediated by a series of intermediate points, none of which is distinguishable from its predecessor. Degree A may be indistinguishable from degree B , and B indistinguishable from C , while degree A is clearly distinguishable from degree C . In such cases $A = B$, and $B = C$, but $A < \text{or} > C$. The contradiction between these judgments and the law that things which are equal to the same thing are equal to each other, is the chief motive for constructing the *continua* of quantitative science.

Quantity is expressed by the cardinal function of numbers; degree, by their ordinal function. Quantity and degree differ in that a quantity can be divided into equal parts which can be

recombined in any order we please without changing the original quantity, while the order of the parts of a manifold which varies regularly in degree cannot be changed without destroying the original order entirely.

Two or more things are said to be equal, when they may be substituted for each other at will, when they perform the same functions. Evidently they are never equal in all respects, as in that case they would not be two things at all, but would be identically the same thing. Things are equal only for some purpose, and from some particular point of view. For the sake of clearness, the term is usually confined to quantitative substitutions and used figuratively in other cases.

We may define substitution by observing that we can substitute whenever we can do with the elements of one manifold what we have done with the elements of another, whenever the one will serve in the fulfillment of the same purpose as the other. The letters of the alphabet may be combined in ways corresponding to the combinations of sounds in speech. One may arrange tickets to correspond to the seats of an auditorium, and may then do anything in the distribution of the tickets which might have been done in the distribution of seats, and do it far more conveniently. A ledger record corresponds to the incidents of a day's business; and for certain purposes the record is an economical substitute of great value. Science arranges phenomena of nature and history in groups according to the presence or absence of certain characters, and proceeds to substitute these characters for the members of the groups. Of any object we predicate all the characters of its group. Heat, light, electricity, gravity, elasticity, etc., are forms of motion, and we proceed to predicate of each whatever we know of motion. Science may learn to resolve one of these forms into another *ad libitum*, and there will then remain nothing to be accomplished in the way of establishing correspondences and discovering constitutive consistency.

In general, the ideal of the rational movement in modern philosophy was to be able to start from any content of experience, and, following its implications as cues, to reconstruct reality.

Such an ideal presupposes unbroken continuity in nature and a knowledge of the relations of the continuous to the manifold everywhere. It assumes the truth of Hegel's dictum that the real is rational. It would lead us afield to discuss this dictum here. From the standpoint of this paper, the rationalist's ideal is merely an ideal, a pilot star. Reality is essentially a self-maintaining system, not a finished and completed thing. Within it conflict and discrepancy are always to be found, and it is not conceivable that the work of reorganization and readjustment should at any time be complete. In some of its aspects, in view of its necessary manifoldness, the world is multitudinous. The rationalist's world is no more needed by the mind than the empiricist's. It is as essential to the maintenance of reflective experience that the world should be discrete as that it should be continuous. Whether we insist, with the radical empiricists, that discreteness is fundamental and continuity derived, or, with the idealists, that continuity is fundamental and discreteness derived, in either case we miss the truth which develops from a critical study of reflective experience, the truth of consistency, that the one and the many are in the same sense real.

A word further needs to be added regarding causation. It has been said that this is a volitional category, but there are aspects of the causal order which are presentative and constitutive rather than purposive. We have already found a correspondence between cause and effect such as the constitutive law of continuity in discreteness would lead us to expect. This is formulated in the law of equivalence, and is a structural feature of the world of changing objects. Moreover, the temporal aspect of the causal relation formulated in the law of invariable sequence is constitutive rather than purposive, a demand of thought and a form of continuity. Causal relations are no more given in experience than objects are given. The sequences in the world present gaps and chasms which the mind is constrained to bridge by causal relationships. Change is as characteristic of the world as permanence; indeed, it is more characteristic, and causation is only the consistency of change. The conception of nature as a closed system of causal processes and that other conception, to

which this in connection with the law of equivalence gives rise, that the sum of all the energies of the universe is a constant, are rationalistic formulæ which are not necessary to the conception of an objective world. The law of equivalence is necessary; and it is, moreover, a generalization from experience. But the view of nature as a closed system, the dogma of conservation which rests upon it, and also the law of equivalence, are not laws in the strict sense of the word and do not rest upon experience. They are useful postulates or premises of certain branches of speculative physics, and are rather purposive than constitutive. The purposive aspects of the causal nexus and of nature in general can best be treated in another connection. They have to do with the world as a whole, with the world as an individual, and raise the question whether the world is infinite. In what sense, then, is infinitude a constitutive form of consistency?

The infinite is defined in two ways in both mathematics and philosophy. Negatively and empirically, it is the unending, the unlimited. In this sense, it is not fundamentally distinct from the finite, it is an unending finite. The other is Dedekind's definition. "A system is said to be infinite when it is similar to a proper part of itself: in the contrary case it is said to be a finite system." "The systems R, S are said to be similar when there exists such a similar transformation φ of S that $\varphi(S) = R$." According to this definition, all manifolds produced according to the formula $x + 1$ are infinite. Upon any series of rational numbers beginning with one and containing n terms, we can always perform the operation indicated in the formula $+ 1$ so that a new member of the series results. The series is therefore infinite, because it is similar to a proper part of itself. The system of rational numbers has no last term. Moreover, we can construct infinite systems of rational numbers by simply transforming the rational system as a whole into similar systems.

Space and time are thus infinite. They are *continua* of such nature that beyond any limit you please a further space and time are implied. Let the unit be what it may, the operation $+ 1$ or $\times 2$ can always be performed on any series or sum of such units and the limits of space and time be thereby extended. In

the same way, space and time are infinitely divisible. The operation $\times \frac{1}{2}$ is always possible, no matter how far the process of bisection may have been carried.

The same is true of series of similar objects; there is always room for one more in the series. There may always be another man, another tree, or another star, just as there may always be another whole number or another unit of space or time. The manifold objects of the world thus of themselves fall into an infinity of infinite series with infinite possible relations of correspondence between them. The work of the intellect in discovering such correspondences is not likely to be finished inside the life-time of any particular generation. Indeed, there will always remain as much yet to be done as at the moment when human reflection began.

We may make similar observations as to causal series. The connotation of any causal law is finite; its denotation is infinite. There may always be another transformation such as that described. The process φ in Dedekind's formula is always possible. The world thus appears to be a self-transforming, self-maintaining system, which is always similar to a proper part of itself; and this is one of the deeper meanings of the law of consistency. In the case of ordered manifolds of the reversible type, consistency becomes infinity, and in the non-reversible type, eternity. The infinite, the infinitesimal, and the eternal are simply the 'what,' the prospective reference of the particular. Prospective space and time must consist with the orders with which experience makes us familiar, and upon this basis we construct the definitions, axioms, and operations of geometry and number. In all the natural sciences of the present day, great emphasis is put upon exactness, meaning by the term a complete enumeration of the conditions under which a given law is valid, that is to say, a complete definition of the transformation φ of Dedekind's formula. This being given, the law holds with the same uniformity and infinite applicability as the axioms and postulates of geometry. Thus we construct 'exact' sciences, and thus we may say that what a single object and the world of objects really are, they are eternally and immutably. The prin-

ciples of the indestructibility of matter and the conservation of force and energy express the necessity that the world of objects be, in this sense, infinite and eternal. In the distinction between 'this' and 'the rest of the world,' the latter is always infinite in the sense in which the term has been defined; and it may mean either the future and other existence of 'this' or the existence of other contents. No object is given as an object, and just as little is the world as a whole so given. They are always to be found, to pass hither from a realm of gray abstraction and anticipation to warm and actual immediacy. Their infinity lies in the fact that they always may thus pass hither.

We have now developed the concept of constitutive consistency and found it to contain three demands, three necessary forms of the objective contents of experience. These we may name continuity, discreteness or exactness, and completeness. The first has proved to be order, and all genuine orders seem to sustain what might be called relations of one to one correspondence to their members. Each order appears to be similar to a proper part of itself. We have found that orders correspond in this fashion to each other. All thinking is a process of establishing correspondences. What the intellect seeks is not identities and differences, as scholastic logicians held, but correspondences; and we need this type of relationships, because it makes possible certain processes of substitution which economize the attention and energy of the individual in the further activities of life. Completeness or individuality is such a relation of continuity to discreteness in the object of thought as to make the latter self-maintaining and infinite. Completeness is continuity in discreteness of the type we have described as infinite. A complete thing is not an object cut off and isolated, not the 'flower in the crannied wall,' 'root and all and all in all,' but rather a complex which involves no self-destructive internal discord. Complete space is not to be conceived as all the space within a given or conceivable limit,—that is self-contradictory,—but rather such a space experience as may continue without let or hindrance from within. Complete space is Euclidian, it is also non-Euclidean; it is both tri-dimensional and hyper-dimensional. Complete space

is any space possessing such internal harmony as to be infinite, that is, similar to a proper part of itself.

Similarly, complete classification or description is not to be conceived as such an enumeration of attributes and relations as shall leave none remaining to be mentioned. That is as self-contradictory a conception as an all-comprehending space. It is rather a classification based on continuous principles of order such that further characterization may be reached by a process like the similar transformation of which we have spoken. Completeness, the conception of objects and the world as wholes, is in some of its aspects a purposive category, a demand for economy in thought, for simplicity in the conditions of further activity.

There are certain other orders such as those of economics, ethics, æsthetics, and metaphysics, which are not constitutive as continuity, discreteness, and completeness are, orders which are predominately practical or purposive. To them we may return at another time.

G. A. TAWNEY.

DESCRIPTIVE AND NORMATIVE SCIENCES¹

THE distinction between the descriptive and explanatory sciences, on the one hand, and the so-called 'normative' sciences or disciplines, on the other, though evident and even ultimate for common sense, has come to be a seriously puzzling problem for philosophy at the present day. Though in one sense as general as the problem of the relation between the real and the ideal, it also involves many special and technical questions, the discussion of which, though interesting and important, sometimes tends to obscure the main issue. In the present paper, the attempt will be made to deal with the problem from the point of view of methodology, the object being to see if it is not possible, even for those occupying quite different philosophical positions, to agree upon certain general principles that will help all concerned to avoid either the abstract dualism or the specious monism that too often characterizes such discussions.

For common sense the problem can hardly be said to exist at all, since the distinction between the real and the ideal seems self-evident. The real is simply that which *is*; the ideal, on the other hand, by definition implies at least some deviation from reality. It is what, from some point of view, *ought* to be, as opposed to what *is*. Hence, of course, we have sciences which deal with the real, like physics, chemistry, physiology, and psychology; while there are other so-called sciences, like logic, æsthetics, and ethics, which set up certain norms or standards. Thus stated, however, we have a dualism which even common sense and physical science are inclined to look askance at; and the first step in the direction of reflection is usually to hold that science, in the proper sense, deals with the real and only with the real, while the so-called 'normative' sciences or disciplines are more properly arts, the object of which is to attain certain ends that are by no means implied by reality as such.

¹ Read before the American Philosophical Association, at the New York meeting, December 27, 1906.

But the present tendencies of the descriptive and explanatory sciences themselves are calculated to force even common sense, however reluctant, from its original position. The physicist, the chemist, the physiologist, and the psychologist alike, — but especially the psychologist, who is more alive to the problem, — tell us that they by no means profess to give a complete account of concrete experience or reality, but only of experience regarded from a particular and necessarily abstract point of view. It will not even do to say that they deal with different parts of experience or fields of experience ; each representative of a special science is concerned with the whole of experience *so far as it is relevant* to his problem and capable of being dealt with by his methods. Scientific description is progressively technical, and therefore abstract, as the true problems and methods of the science in question gradually become more clearly defined. Moreover, no science of the real, — certainly no developed science, — is merely descriptive, in the narrower sense of the word ; it seeks to explain, *i. e.*, to determine the laws of orderly change from its own point of view. The laws discovered are always at once less and more than mere descriptions of the behavior of reality as such : less, because they describe real processes only from a technical, abstract point of view ; more, because they claim, or at least seek, universal validity. In truth, it is plain, when once clearly stated, that all scientific laws are what the modern logician would call ‘hypothetical universals.’ They do not state that the real process, in the particular case, did or ever will take place thus and so ; they rather state, in perfectly unambiguous terms, that *if* certain conditions are given, and *if* they are the only conditions present, certain results will follow. In fact, this is all that any universal principle can mean, if we keep within our brief.

Even when we take the factual or existential point of view, then, and inquire only what is, our developing science, whatever that may chance to be, will more and more take the form of a rational construction, and so become normative in this sense ; for, given fundamental assumptions, the procedure of reason is always immanently teleological. A principle like the conservation of

energy, for example, is much more than a mere generalization from experience. Physics has simply reached the point where all are perfectly agreed that, in so far as the world can be explained as a mechanical system, the law of the conservation of energy must hold. Whether it holds absolutely is quite another question, for that would imply that the mechanical explanation of the world is the ultimate one, and would make physics equivalent to metaphysics or ontology.

But is the factual method of dealing with experience the only method that can be called objective? Let us for the moment compare the procedure of structural psychology with that of logic or epistemology. The psychologist regards our mental life as a more or less continuous process, intimately connected with, if not causally related to, certain more obviously continuous physical and physiological processes, the latter, of course, being primarily those of the central nervous system. The inner like the outer process he regards as a series of events to be explained, the events being arbitrarily isolated stages of a process really or approximately continuous. But, in order to be able to deal effectively with these events of the inner life, it is highly convenient, if not necessary, to assume that the content of consciousness at any given time is analyzable into so-called 'conscious elements,' — and so the technical method is gradually developed. The problem thus becomes, now one as to mental content, now one as to sequence of states of consciousness; and these, together with the physical and physiological correlations involved, are all that concern us, so long as we maintain this technical point of view.

The accurate and highly significant results obtained more than justify this highly abstract procedure; but the tyro might sadly misinterpret these results, so laboriously obtained by the specialist. He might say: "If the psychologist has given us a fairly exhaustive account of the total content of consciousness, what more remains to be done, except to carry still further the investigations so prosperously begun?" But the very expression 'content of consciousness' is ambiguous; for to be in consciousness is not necessarily to be a particular fact or analyzable element in consciousness. The psychologist is giving us all that he pro-

fesses to give, an account of our mental life regarded as a series of events ; but he has deliberately and scrupulously left out what, for the logician or epistemologist, is the all-important matter, viz., the meanings or rational implications of consciousness. Not facts, then, but meanings, are the subject-matter of epistemology ; not causal connections, but rational implications are the matters to be investigated. And just as the so-called ' facts ' of psychology are only arbitrarily isolated stages of a relatively continuous process, so the particular meanings of epistemology can only be understood as parts or members of a system of meanings.

As regards objectivity, then, there is plainly no advantage on the side of psychology as against logic or epistemology. Each is dealing with our real mental life, but each from its own technical and necessarily abstract point of view. But when we come to the matter of classification, an unexpected difficulty confronts us, if we accept the conventional distinction between descriptive and normative sciences. Structural psychology is undoubtedly a descriptive and explanatory science ; but both description and explanation are from such a technical and deliberately abstract point of view, — the point of view of a highly developed science, — that the procedure of psychology might be termed, in this sense, normative as well. On the other hand, traditional formal logic has commonly been regarded as the typical normative science, except by those who have preferred to regard it as an art rather than as a science. But purely formal logic has lost much of its prestige, and what shall be done with modern logic, which has become transformed into theory of knowledge ? Its procedure is in every way as business-like as that of psychology. It primarily seeks to explain what knowledge is and what it implies. But since it is concerned with the organization of knowledge, and since the organization of knowledge at any given stage of development is imperfect, it is bound to form the more or less definite conception of an ideal knowledge (proximate, if not ultimate), in which the antinomies which perplex us at present shall be resolved. Then we might say that modern logic is at once explanatory and normative ; but this does not mean that there is

a logic that is explanatory and another logic that is normative, for the science is plainly one. Moreover, as knowledge develops in the direction of its ideal of organization, it becomes as a result more and more real. In spite of prepossessions to the contrary, this is a highly suggestive example, which goes to prove that, in some fields of investigation, at any rate, the real and the ideal tend to converge.

I am well aware that, in speaking of metaphysics from the methodological point of view, one must exercise more caution; for here we are confronted with two difficulties: (1) The question which has often been raised as to the relation between theory of knowledge and theory of reality; and (2) the evidently divergent tendencies of recent metaphysical theory. Even here, however, it seems to me that our present differences of opinion are not so hopeless as would at first appear.

Let us first consider the relation between epistemology and metaphysics. All are familiar with the accusation brought against English Neo-Hegelianism by Professor Pringle-Pattison and others, that these exponents of modern idealism have, without any warrant whatever, transformed theory of knowledge into theory of reality, and this to the great disadvantage of both disciplines. I have not the slightest wish, in the present paper, to attempt to vindicate any particular form of metaphysical theory; but it seems fair to ask ourselves whether this particular criticism has the cogency that it appeared to have twenty years ago. Indeed, the question is highly relevant to this discussion, for it really concerns pragmatism quite as much as modern idealism.

If we accept the antithesis of appearance and reality as final, as was practically done by Kant, — if we take his philosophy literally, — and has been done since by certain too orthodox followers of Kant, then, indeed, there is a great gulf fixed between epistemology and metaphysics. But the logic of the position is not far to seek. The sharp and definitive line of cleavage between epistemology and metaphysics merely corresponds to the absolute discrepancy assumed to exist between the world of possible experience and the world of things-in-themselves. If our knowl-

edge is not, in any true sense, knowledge of the real, then, of course, theory of knowledge has little or nothing to do with the theory of the ultimate real. But who holds such a position to-day? If one thing more than another characterizes philosophical speculation at the present time, it is the assumption, implicit or explicit, that experience and reality for all practical purposes are the same. Of course we do not all have the same conception of experience, — nobody would claim that, — but this constant and insistent reference to experience is a most hopeful sign; for it suggests that controversy may give way to coöperation when we come to understand each other better, and when the larger issues are more clearly and judicially defined. Now, in so far as we do keep to experience in our philosophical investigations, it seems to me *prima facie* impossible to make any sharp distinction between theory of knowledge and theory of reality. Even for Kant, of course, theory of knowledge was at the same time theory of the organic constitution of the world of possible experience.

Now, as to the second question: In how far do existing differences in metaphysical theory commit us to seriously divergent conclusions as to the position of metaphysics in the general classification of the sciences? More particularly, can we come to some working agreement as to whether metaphysics should be regarded as a science of the real or a science of the ideal? It seems fairer to put the question in this more general form; for, if we ask whether metaphysics is to be regarded as merely descriptive and explanatory, on the one hand, or merely normative, on the other, it is only too obvious that our original hard and fast division breaks down. We should probably have to answer that metaphysics was neither the one nor the other; but such an answer would not be particularly enlightening, for the larger and more significant question would remain. If we ask this larger and more significant question, — whether metaphysics is a science of the real or of the ideal, — the distinction again seems to break down, but with the opposite result; for it would seem that we can hardly deny that it is both. If metaphysics is a science at all, it must surely be a science of the real, since reality as such

is the very matter investigated. So far we would seem to be committed to substantial agreement. But is or is not metaphysics a science also of the ideal? If by ideal is here meant that which is opposed to the real, we may answer categorically that metaphysics is decidedly not, in that sense, a science of the ideal. The true problem, of course, is whether reality as such involves the ideal. There can be no question that for traditional idealism this is the logical conclusion of the method adopted, though this is far enough from saying that the real and the ideal can be mathematically equated or carelessly identified. In practice, we are driven to admit 'degrees of reality,' these corresponding to *degrees of achieved organization of experience*. In the case of pragmatism or realism, in their more recent forms, the problem would present much greater difficulties; but even in the case of those methods, I would venture to suggest that the conception of 'degrees of reality' is by no means without significance, so long as the reference is to concrete experience, and that the 'degrees of reality' here also correspond to degrees of achieved organization of experience. In short, while we explain the organization of experience so differently, the degree of that organization is for us all alike the important thing; and the organization of experience is always from the point of view of a proximate, even if not ultimate ideal, no matter how specifically that may be defined in terms of practical activity or the objective conditions that determine and limit practical activity. In the case of metaphysics, then, as in the case of all the other sciences considered, we find a science of the real developed in terms of its own immanent ideal.

Thus far, it will be remembered, we have considered but one of the so-called 'normative' sciences, viz., logic; but in that case the conventional distinction did not seem to hold. We found, indeed, that the science has an ideal side, but that this is not opposed to the reality of thought and experience, being rather developed with a view to the objectivity of experience as a whole. When we come to consider ethics, which is commonly regarded as the normative science *par excellence*, we might seem to be confronted with hopeless differences of opinion; for we have

popularly accredited moralists whose positions range all the way from the most reckless and impracticable idealism to a degree of naturalism that logically involves as its foundation nothing less than crass materialism. But here also it seems reasonable to hope that serious students of philosophy may come to an understanding with each other. Is it too much to say that the day of strictly *a priori* constructions of ethical theory is forever past? An ideal that stands opposed to reality, — *i. e.*, to reality in the true and ultimate sense, — is self-condemned; only when found to be immanent in reality itself can it command the respect of any thinking man. So far from ethics not being concerned with reality, it is audacious enough to investigate the most real thing in the world, *viz.*, human conduct. The enterprise is a sobering one at best; but is it not inexcusable temerity to dogmatize about what is, most vital, most concrete in experience, without ever seriously attempting to understand the objective relations involved?

To experience, then, ethics must assuredly go, — like all other sciences, for that matter, including metaphysics itself, — and, in dealing with experience, ethics will of course receive much help from other sciences. It must always be remembered, however, that these other sciences do not exhibit concrete experience, but rather experience interpreted, in each case, from a highly technical point of view. In its deference to other sciences, — *e. g.*, anthropology, social psychology, and sociology, — ethics must not forget to have a point of view of its own; otherwise it will not take even the first step toward becoming a science on its own account. What that point of view should be, need not, of course, be discussed here; but at any rate it is plain that the categories of ethics must be teleological, rather than quasi-mechanical. If all proximate ends are imperfectly rational purposes, the ultimate and truly rational end, whatever that may be, cannot be other than purposive itself.

But this very mention of an ultimate end of conduct, — if, indeed, we may speak of an ultimate end, — will at once suggest that here, at last, we have a science that is truly normative. We have seen, however, that all sciences, *qua* sciences, are in a sense normative, since they all interpret the organic unity of experi-

ence in terms of regulative ideals of their own. Yet they are all dealing with reality, and the ideals in question would be spurious, were they not potent means of dealing with reality on a comprehensive plan. Such, if I am not mistaken, is the case with ethics. It does not create its own material or subject-matter any more than do other sciences. It starts, or should start, with an exhaustive examination of actual human nature and the objective relations involved in society at its different stages of development. It does not ask why men should desire, and will, and act, any more than it asks why they should exist at all. Human desires and volitions, always involving some proximate purpose, are the matters to be investigated. But ethics, like theory of knowledge, must regard experience as, at any rate potentially, an organic whole; and conduct, like thought, becomes more truly itself in proportion to the degree of achieved organization. So there is presumably an ideal of conduct, as there is presumably an ideal of knowledge; but both are immanent in the process of experience itself. And, as we saw no way of drawing a hard and fast line between theory of knowledge and metaphysics, provided we accept experience as itself the real, so, for precisely the same reasons, it seems impossible to decide beforehand that ethics is, and must be, merely a natural science.

To conclude, then, it seems fair to say that there are no distinctively normative sciences, in the conventional sense of the term 'normative.' All sciences, *qua* sciences, have to do with the real, though each regards reality from a technical, and therefore more or less abstract, point of view, that becomes in a sense normative for its own procedure. Of course it does not follow that, since all sciences are abstract, they are all equally abstract; for the so-called 'exact sciences' are of necessity abstract in proportion to the degree of their exactness. One might say that this is the price they pay for their exactness, — a consideration which is frequently overlooked. On the other hand, these more abstract sciences are not necessarily on a lower plane than those which are relatively concrete; they only take this position when they put themselves in the wrong by making ontological assumptions. The true distinction between the so-called 'descriptive'

and the so-called 'normative' sciences is, that the former take the factual, the latter the teleological point of view, *i. e.*, the point of view of immanent rationality and purposiveness; but objectivity of treatment is as possible in the one case as in the other. In fact, we may go further, and claim that true objectivity, which necessarily concerns the coherence of experience as a whole, must always, in the end, be exhibited in teleological terms. Not that the teleological point of view can possibly supplant the factual in the procedure of the so-called 'exact sciences,' — the very suggestion is, of course, absurd, — but we must clearly recognize that the factual standpoint is far more abstract than the teleological standpoint, and in that proportion far less true to the nature of concrete experience. In a word, the difference is that between explaining experience from without and from within.

ERNEST ALBEE.

CORNELL UNIVERSITY.

PROCEEDINGS OF THE AMERICAN PHILOSOPHICAL ASSOCIATION: THE SIXTH ANNUAL MEETING, COLUMBIA UNIVERSITY, NEW YORK, DECEMBER 27 AND 28, 1906.

REPORT OF THE SECRETARY.

THE sixth annual meeting of the American Philosophical Association was held at Columbia University on December 27 and 28, 1906. At the business meeting it was voted to accept the invitation of Cornell University to hold the next annual meeting in Ithaca next December. A vote of thanks to the President and Trustees of Columbia University for their kind hospitality was heartily passed.

The Treasurer's report was submitted and approved, and is as follows :

JOHN GRIER HIBBEN, SECRETARY AND TREASURER, IN ACCOUNT WITH THE AMERICAN PHILOSOPHICAL ASSOCIATION.

Receipts.

Balance on hand at last report.....	\$142.61
Received from dues.....	134.26

Total	\$276.87

Expenses.

Proceedings of the Association.....	\$19.00
Printing and stationery.....	20.75
Clerical aid.....	6.50
Travelling expenses.....	3.80
Stenographer.....	22.41
Stamps and express.....	4.80
Telegrams.....	.50
Harvard smoker.....	21.67

	\$99.43
Balance on hand.....	177.44

Total.....	\$276.87

The following were elected officers of the Association for the coming year: *President*, Professor H. N. Gardiner, of Smith College; *Vice-President*, Professor Ralph Barton Perry, of Harvard University; *Secretary-Treasurer*, Professor Frank Thilly, of Cornell University. Members of the Executive Committee for two years: Professor Herbert G. Lord, of Columbia University, and Professor Charles M. Bakewell, of Yale University. Member of the Executive Committee for one year: Professor Ernest Albee, of Cornell University.

The following were elected members of the Association: Dr. Roswell P. Angier, Yale University; Professor William Adams Brown, Union Theological Seminary; Dr. Morris R. Cohen, Columbia University; Professor Herbert E. Cushman, Tufts College; Professor W. B. Lane, Lynchburg, Va.; Professor Herbert Martin, New York Training School for Teachers; Professor Geo. H. Mead, Chicago University; Professor John M. Mecklin, Lafayette College; Dr. Benj. Rand, Harvard University; Dr. Frances H. Rousmaniere, Mt. Holyoke College; Mr. Walter L. Sheldon, Ethical Society of St. Louis; Professor Norman Smith, Princeton University; Professor E. D. Starbuck, University of Iowa; Professor Wm. James Taylor, Brooklyn Training School for Teachers.

The following are abstracts of the papers read at the sessions of the Association:

The Energies of Men. WILLIAM JAMES.

[The President's Address, which appears in full in this number (January, 1907) of the PHILOSOPHICAL REVIEW.]

Some Points of Contact Between Music and the Emotions.

HALBERT HAINS BRITAN.

The philosophy of music is still proverbially vague and obscure. For the student of æsthetics, the *crux* of the whole problem concerns the content of this art. Does music find its real æsthetic value in arousing and stimulating the emotions, or is its function merely to please by the changing tones of melodic and harmonic progression? The literature on the subject, though scant, favors the latter hypothesis. The object of this

paper is to show that there are so many points of contact between music and the emotions that the so-called 'expressionist's' position is tenable. There are two aspects of the æsthetic study of music which must be kept clearly distinct. Music as an art has a tremendous impressiveness, due to the medium in which the musician expresses his ideas. Sounds are normally more exciting emotionally than color and form. The ultimate explanation of this 'dramatic' power of music, therefore, the source of its popularity and of its power over the mind, will be physiological and biological as well as psychological. Under this head will come pitch, rhythm in its primitive forms, the major and minor modes, and all those variations in intensity, tempo, and timbre which form the technique of musical expression. All these have power to influence the feeling consciousness. But, besides these elements, a musical composition shows those architectonic attributes which in the other arts are the criteria of their artistic excellence. Such, for example, are unity in thought and design, strength and grace in expression, and originality and significance in the musical thought expressed. Here the problem of the emotional content is identical with the same problem in literature or in painting. There are two principal considerations which serve to make all of these factors in music of great emotional significance. In the first place, the conceptual vagueness of the organic factors and of all musical ideas serves to heighten the feeling accompaniment. They are not expressive but suggestive; hence they allow a free play of the imagination and of association controlled by emotional congruity. Then again, and this is a point of extreme importance, these factors or symbolic elements are not static, but are all inherently and unalterably dynamic. They are fitted, therefore, as are the symbols of no other art, to accord with the emotional phases of consciousness. Because they are dynamic and not static, they compel an answering response in that most motile aspect of consciousness, the emotions.

The Concreteness of Thought. GEORGE H. SABINE.

Philosophical thinkers are now generally agreed that only experience is real, and this only in proportion as it is concrete;

but there are great differences between current conceptions of concrete experience and of the relation of thought to the concrete. An examination of concrete experience shows that it possesses the character of immediacy, but that the immediate must be further qualified as the individual, as that which possesses the richest possible content. Individuality, however, implies a position in an organized system, for an individual is constituted not by isolation but by functional relation to a systematic whole. The conception of organic unity is equally a postulate of generalizing thought, for true generalization must reach real synthetic principles. It appears, therefore, that the attempt to define the concrete cannot stop short of an experience in which universality and individuality are at once completely satisfied, an experience in which perfect integration is combined with perfect differentiation. Only the Absolute, therefore, is fully concrete, and for finite experience the Absolute can be only an ideal of perfected rationality. Such an ideal, however, is organic to our actual experience because it is an ideal which we may progressively realize. The concreteness which we attribute to actual experience rests on the fact that this experience is always partially organized. If this were not the case, thought could never find a problem, for logical organization always takes its rise within a potential system. Thought, therefore, is to be conceived as a function of concrete rationality by which experience is at once universalized and individualized; it is the means by which we realize in finite experience some measure of that ideally rational experience which is truth. The abstractness which characterizes conceptual thinking in general, and scientific procedure especially, is always a means to the attainment of concrete reasonableness. Abstraction is merely the simplification of a problem, which remains to be solved by the logical unification of the experience. The abstract sciences get their validity solely from the fact that they contribute to the rationality of experience as a whole. If this conception of thought is correct, it follows: (1) that the notion of a pure experience must be given up; (2) that no distinction in principle can be made between reflective and constitutive thought; (3) that reality is to be conceived not as

pure experience, but as the ideally rational experience which is the goal of thought.

The Nature of Explanation. WALTER T. MARVIN.

Explanation is an analysis of a whole into parts, or of a complexity into elements that are simpler and whose relations are simpler. Four processes are involved in the growth of information: new sensations, association, analytic attention, and comparison. Of these, the two latter are preëminently the cognitive processes; that is to say, analysis of the apprehended content, together with comparison of the elements, is the special work of knowledge. Analysis of the content of apprehension finds these terms and relations, and judgment may be defined as the assertion of a relation between terms. Thus explanation differs from the two other stages of knowledge merely in thoroughness. Two distinct processes are denoted by the term analysis in the definition given above: (1) Substitution of one content for another, which seems to us a better or truer presentation or representation of it. Such substitution is employed at various stages and in many forms; *e. g.*, in the preference for the content as focused in attention; in the apprehension of the standard form of an object instead of its appearance in perspective, at a distance, etc.; in the substitution of the object as seen under the microscope for it as seen by the naked eye; finally, in the substitution of the abstract entities and symbols of physical and chemical speculation for the objects and events as usually perceived. The work of explanation, however, lies properly within the content selected, be it a substituted one or not. (2) Analysis proper is the work of analytic attention. (*a*) What is meant by the term 'simple,' and are there 'absolute simples'? By simple is meant the product of analytic attention; and the fact that this analysis, as it proceeds, meets ever increasing difficulty indicates real limits (on whose borders we seem to be working) to such analysis, *i. e.*, the absolute simple. (*b*) We have indicated in the definition two distinct kinds of explanation: First, analysis of whole in parts; secondly, of complexities into their elements. The first leads to some form of atomic hypothesis; the second, to abstract general laws. Of atomic hypotheses, again, there are two distinct types:

First, where the part retains enough characteristics to be a perceivable entity, thinkable as existing independently or apart from the compound, *e. g.*, the blood corpuscle; second, where so much has been abstracted from the entity that we could not (from what we know of human perception) regard it as perceivable, *e. g.*, mass particle, the ether, etc. Hence, if we mean by existent that which admits of possible perception, such abstract entities do not exist, or, at any rate, exist only in the broader sense in which any abstraction (*e. g.*, red, weight, numerals, etc.) may be said to exist. There is danger in physical and chemical science of surreptitiously implying that abstract entities have characteristics that would make them perceivable, though such characters are denied them by definition. In the broad sense of the term symbolic, such entities are only symbols. The analysis of complexities into elements gives us abstract general laws. As all elements whatsoever have their relations, the field of these laws includes all qualities, whether (so-called) primary or secondary. The distinction between these two types of quality or property is the extensity and other scientific value of the relations obtaining between them. All explanation is description, and its ideal is *economic* description (Avenarius). Its entities and abstracted properties are to be thought of not as existing apart from or behind the concrete, but merely as points in the concrete upon which analytic attention has been focused. Atomism, as a theory of real existence, has its definite limitations, *i. e.*, possible perception. Atomism, however, as a methodological instrument, may proceed to abstract entities.

A New Form of the Syllogistic Canon. JOHN GRIER HIBBEN.

[On account of the technical character of the subject, no abstract of this paper has been furnished. It will, however, be published in full in a later number of the REVIEW.]

The Aims and Results of the Society for Psychological Research.

J. H. HYSLOP.

[No abstract furnished.]

The View that Reality is Control. GUY A. TAWNEY.

(I) In the world of thought, reality is said to be that which controls in the further activities of experience. This is instru-

mental idealism. Reality is made of no other stuff than valid judgments. Judgment is a process through which reality evolves. Objection is made that this is subjectivism, because the real becomes a mental process and product. Instrumental idealism replies that the subjective is the unreal; that it is the uncertain and the false, that which is not available for control. The idealist does not reduce reality to terms of uncertainty and error, and from his standpoint the objection does not hold. Stated generally, the judgment, that judgment is a controlling factor in the evolution of experience, is itself controlling and real. Judgment is therefore no mere subjective mental state. But the objector returns and asks, What of the judgment that the judgment that the judgment *ad infinitum* is valid? There must always be a judgment, the last member of the series up to the present, which is still uncertain, untested. There must be a realm of uncertainty and possible error, which is, but is not real. That which controls in this logical sense is always objective, but the real is vastly more than the objective. (II) Control in the world of action is usually conceived negatively as external limitation to activity. Such characterizations of the real as 'resistance to muscular effort,' 'limitation of activity,' 'determination by negation,' 'uncontrollableness,' imply that the real is a sort of straightjacket of the mind. It was before sentience was and abides when sentience ceases. It is the working idea (1) of plain practical men, (2) of biology, (3) of most psychology, (4) of natural science, (5) of the utilitarian type of epistemological theories, (6) of realistic epistemology in general. Objections to it are (1) that it makes reality unknowable, a thing-in-itself which never enters into the content of knowledge; (2) that it makes the world of knowledge phenomenal and even subjective; (3) that it presupposes a positive control opposed to the negative limitation of activity and exercised by the agent of the activity, the subject, or ego, or self. Nevertheless the subject or agent is by this definition unreal. The activity is set over against the control. This dualism is clearly stated in Baldwin's doctrine of 'subjective' and 'outer controls.' This dualism of controls is Kantian so far as it goes. It leads, in some, to the position that

the real subject of every judgment is outside the mind, while all that is predicated of it is inside the mind. The question how the one can refer to the other at all is unsolvable, and this is a *reductio ad absurdum* of the dualism. In any case, that which controls in the world of action is always objective, but implies much more which must be said to belong to the real world. (III) Control in the world of immediacy. Here the real is determined by the free selection of a subject, ego, soul, or spirit. It has both a positive and a negative side,—a concentration upon what satisfies and withdrawal from what does not satisfy. By means of 'love' and 'will,' we reach a point to which thought unaided cannot attain. The view is strong where the others are weak. But it is to be objected (1) that it acknowledges the existence of something (called illusion, or evil, or negation, etc.) which is yet not real; (2) that its reality is what we usually mean by nothing, or reality at large; (3) that it is, from an ethical viewpoint, a form of self-indulgence which may become unmanly and immoral. Once more we are dealing with what for reflection must be objective and given, the datum of judgment. But it does not exhaust the real. (IV) Appeal might be made to social control; but this cannot render the views discussed above more tenable, because the social character of the object of knowledge is presupposed by them. That which controls is still the objective only, and cannot be said to be equivalent to the real.

The Ugly Infinite and the Good-For-Nothing Absolute.

CHARLES M. BAKEWELL.

Ever since philosophy began to emerge from the hylozoic age and to free itself from the bondage of picture making, it has been pursued by an antinomy which haunts it still, the antinomy of the infinite and the absolute. By infinite is here meant the boundless, the *ἄπειρον*, 'the ever-not quite,' the endless regress, which is implied in empiricism, as the idealist views it; and by the Absolute, the fixed and definite and final, whether as standard of reference, scale of worth, or world of meaning, which is the flaw in idealism as viewed by empiricism. It is not too much to say that most of the discussions of fundamental problems in

philosophy center in this antinomy, and that the chief effort of philosophers of subsequent times has been to discover a way of solving it. Moreover, when, with respect to any problem, one attempts, as is customary, to dichotomise philosophers, the principle on which the division is based turns on the relative importance assigned to one or the other side of this antinomy. When philosophical discussions wax polemical, as occasionally they will, then one's opponent is supposed to have embraced simply one side of the antinomy, while blindly ignoring, or shamefully belittling, the reasons which make for the other side. This granted, the logical difficulties of his position are easily made evident, and adjectives of abuse add warmth to the discussion. In earlier times the partisans of the absolute held sway, and the infinite, to which their opponents were said to be committed, was dubbed 'ugly,' about as strong a term of reproach as the Greek could find, for the ugly was the bad and the false made manifest. In recent times, and partly owing to the conquests made by the theory of evolution in all fields of knowledge, the partisans of the infinite are coming to be more and more boisterously in evidence, and they are returning the compliment. Their opponents' view leads, we are told, to an Absolute which is 'good-for-nothing,' as abusive an epithet as one can find in our strenuous and utilitarian age. All who are not radical empiricists or immediatists, all who hold a doctrine of transcendence, of whatever variety, are declared absolutists. Passing by the realists who, from one point of view, must be ranked with the absolutists, and confining our attention to the idealists, these fall into two fairly distinct groups according as their real-ideal is taken statically or dynamically. The former group may, with some show of plausibility, be charged with introducing the conception of an Absolute which is useless in the interpretation of experience. Yet even here, as tested by actual results, the charge cannot be fully made good; and what measure of utility this conception of the Absolute possesses is readily explicable in the light cast back upon it by the more developed forms of dynamic idealism. As applied to the latter group, however, the charge is wholly without force. It rests upon the assumption that, because the idealist believes in a

world of eternal truth where values are assessed with finality, believes in a world of meaning which changes not with our shifting beliefs, he must, in order to make any significant use of such a conception, himself have had this completed vision, have reached finality. It would, indeed, be a glorious thing, as Socrates remarks in effect in the *Phædo*, if one could only tell how things are by simply showing how it is best for them to be. That, however, would be the wisdom of God and not of man. "Still," he adds, "I had a second string to my bow"—and so have we. The idealist does not, in Professor James's phrase, 'affect omniscience.' He begins with experience just as he, with all his feebleness and limitations and ignorance, finds it. But he finds the value of the conception of the fixed of dynamic idealism in making intelligible the possibility of working away from this starting-point by definite and sure steps into a world of meaning where nothing is ever lost. Progress is progress, and not simply change, because a less complete view can once for all be set aside in favor of a more complete; and this is clearly intelligible only provided they all have their position fixed in a scale of worth and meaning which we are gradually finding out, but which we do not make as suits our passing mood or present state or present felt need. This conception is one upon which we lean in every step in our search after truth and reality, and it is our continual, though sometimes tacit, dependence on it that gives us our faith that the game is worth while.

Are Time and Space of Coördinate Philosophical Significance?

HENRY RUTGERS MARSHALL.

Our concepts of time and space are based upon our temporal and spatial experiences. (1) Our temporal experiences are determined by the existence, in connection with presentations, of some phase of time quality, which is a general quality of all presentations and, like the *algedonic* quality (pain-indifference-pleasure), displays three phases: pastness, presentness, futureness. One of these phases must attach to each specific presentation, as is shown by the fact that each presentation is discovered to display some one of the three time phases if we choose to look for it. The time quality thus appears to be a general quality of all

presentations. That is to say, no presentation is ever timeless. (2) Our spatial experiences are also determined by the existence, in connection with presentations, of what we may call the spatial quality. If this spatial quality is a general quality of all presentations as the time quality is, then we should find that all presentations are spatially qualified, and that no presentation is non-spatial. But this proves not to be the case. For, although a large proportion of our presentations are spatially qualified, some of them are not. As instances of presentations which are not spatially qualified, we may note the group of concepts which cannot be traced back to percepts, *e. g.*, 'factor of safety,' 'virtue'; and especially the so-called 'feelings of relation,' *e. g.*, what Professor James calls the 'feeling of *but*,' which, as he says, is as definitely a presentation as a feeling of blue. These concepts and feelings of relation are definite presentations, but they are not spatially qualified, *i. e.*, they are non-spatial. (3) The spatial quality thus appears to be not a general quality of all presentations, as is the case with the temporal quality, but a special quality which attaches to a very large proportion of, but not to all our presentations. The temporal quality and the spatial quality thus appear to be on different planes, so to speak; and this leads us to ask whether, in consideration of the fact that our concepts of time and space are based respectively upon our temporal and spatial experiences, we are justified in classing time and space together and treating them as of coördinate philosophical significance, as is so commonly done in metaphysical writings of modern times.

On Some Inadequacies of the Modern Theory of Judgment.

W. H. SHELDON.

The problem of judgment comprises three questions: the make-up of its content (both psychical and logical), the purpose which that content serves, and the fitness of the content to fulfill the purpose. These are the questions of structure, function, and their mutual adaptation. The generally accepted modern theory has revealed the function of the judgment-content (to refer to reality or to suggest action on the environment). Many logicians, also, have worked out theories of structure (the individual-

universal theory, the stimulus-reaction theory, the synthesis theory, the partition theory, etc.), but scarcely anyone has attempted to show how the structure is adapted to the function of suggesting reality. Herein lies the inadequacy of modern theories of judgment.

Descriptive and Normative Sciences. ERNEST ALBEE.

[Published in full in this number (January, 1907) of the *PHILOSOPHICAL REVIEW.*]

Knowledge as Immediate Experience and a Function of Love.

L. F. HITE.

The knowledge of concrete experience, in so far as it is reflective, is rational and more or less systematic; but such knowledge presupposes immediate knowledge and rests upon it as its basis. Immediate knowledge is a unique, simple, complete experience, — a self-existent and self-sufficient whole — which contains in itself, unified and harmonized, all the complexity, variety, and relations which, by the developing processes of attention, reflection, analysis, and synthesis, subsequently grow out of it. Experience has two aspects, cognitive and emotional. The cognitive is that which is presented in the function of self-representation. Experience, in its first intention, is immediately self-conscious. In other words, knowledge is a function of experience such that the unique and individual existence of a given experience is self-represented as this precise kind or quality. For example, the experience of the blue sky is the existence of the blue as the precise quality of this self-represented experience. The paper devotes considerable space to showing in detail the nature of immediate knowledge by means of a construction which supposes a man placed under conditions where the only experience he can have is that of the blue sky. Then the situation is developed by adding sound, and finally by supposing all the senses to be opened at once. It is assumed in this case that there would be complete blending, and that the experience would be of the same type as the simple blue. It is maintained that the cognitive aspect of this experience is its existence as its own precise, unique kind or quality. The emotional, æsthetic, and voluntary aspects of the experience are interpreted and developed as characters

which are otherwise covered by the general term love. Love, in accordance with Swedenborg's doctrine, is taken as the fundamental and all inclusive experience. In other words, experience at bottom is love, and all the functions and characters of experience are developments of love. Love, in the process of self-representation, presents that aspect of experience which we call knowledge. Knowledge, as a complete systematic whole, would be the final stage of this process of self-representation.

Cadwallader Colden of King's College. I. WOODBRIDGE RILEY.

Cadwallader Colden (1688-1776), a graduate of Edinburgh University, Lieutenant-Governor of the province of New York, and an early patron of King's College, was the first and foremost of the American materialists. He was a friend of Samuel Johnson, the idealistic head of the college, and the correspondence between the two reads like veritable Berkeleyan dialogues between Hylas and Philonous. Assuming that 'substance is power and force,' Colden formed a system of dynamic panpsychism somewhat in the manner of Toland's *Pantheisticon*, yet with peculiar variations of his own. A reactionary against Descartes, Colden was neither a local Leibniz nor a colonial Spinoza; opposing the doctrine of the passivity of matter, he neither granted it the perceptions of the monad nor treated it as a necessary mode of the one and only substance. A follower of Hobbes, he was a materialist and yet not a total determinist; in his physics he limited the activities of matter in accordance with its created essence, and in his metaphysics granted freedom of will to intelligent agents. Finally, a disciple of Newton, he was a dualist and yet not without a tendency to monism; he granted the existence of intelligent agents and unintelligent matter, and still comprehended both under the loose conception of a plastic principle. Colden's position in the development of American thinking was in advance of ordinary eighteenth century deism, anticipated to a degree the New England transcendentalism, and issued in a movement essentially modern,—the resolution of matter into the mechanics of energy.

Philosophy and Religion. A. T. ORMOND.

[Read by title; no abstract furnished.]

The Meaning of Moral Goodness. RALPH BARTON PERRY.

The phrase 'moral goodness' signifies distinguishable and definable properties, possessed by certain objects or groups of objects, but capable of being abstracted; *i. e.*, moral goodness is a conception. The aim of the present paper is the elucidation of the real moral goodness contained in experience but only imperfectly discerned in moral sentiment and opinion. The necessity of employing the terms 'moral' and 'goodness' to qualify one another proves that the conception of moral goodness is not simple. There is a morality that is not good; and a goodness that is not moral. In order, therefore, to define moral goodness, it is necessary to distinguish a field of moral values within which moral good, moral evil, and moral indifference are systematically related. Values which approximate morality appear when an organism is introduced into a mechanical system. Mechanical objects and mechanical action now bear favorably, unfavorably, or indifferently upon the organism's preservation; and may be said to be good, bad, or indifferent, accordingly. These values are strictly extrinsic, and may be termed material or potential values. At the same time, there appear the values proper to the organism itself. The elementary organism is an organization whose action is determined, at any rate in part, by the law of its own preservation. Such action possesses value through its reflex consequences, whether beneficial, injurious, or indifferent. Goodness, badness, and indifference, of this type may be termed 'biological' values. In the elementary organism there is but one undifferentiated interest, the instinct of self-preservation. Such acts as answer to this instinct do not as yet possess moral value. Such value arises only when simple interests become differentiated or affiliated in such wise as to form higher synthetic interests. The former appears in the case of the individual self, the latter in the case of the social group. In both cases the sub-interest possesses moral value in consideration of its bearing upon the controlling interest. In so far as the sub-interest contributes to the controlling interest, it possesses moral goodness; in so far as it detracts from the controlling interest, it possesses moral evil; and in so far as it is inappreciable in either respect, it possesses

moral indifference. Moral value, in the above sense, may be attributed to interested action, or conduct, to self-determining individuals, or selves, to institutions, to social groups, to ideals, and to principles.

A Factor in the Evolution of Morality. F. C. FRENCH.

Evolutionary writers in general have given far more attention to the objective than to the subjective side of the moral life. Action for the good of others, determined by instincts, habits, sympathetic impulses, and the like, appeared at an early stage of animal life ; but conscience, as a sense of duty and personal responsibility, does not emerge until a considerably later period in human development. Many facts point to the view that primitive self-consciousness was a group-consciousness rather than an individual self-consciousness. Morality does not begin on the subjective side until the 'cake of custom' is broken and self-consciousness in the individual form appears. Not until this stage is reached can there be that self-determination essential to conduct genuinely moral. This paper aims to show that the first rudimentary form of moral obligation is found in the taboo idea. Certain things are regarded as unspeakably dangerous and these must at all cost be avoided. If contact occurs by necessity or by accident, the person becomes infected by a sort of material contagion. He becomes himself an object of danger and must be tabooed until, by some process of purification, the infection has been removed. Various things are subject to taboo among different peoples ; but blood, a corpse, a new-born babe and its mother are almost universal objects of taboo the world over, as are also sacred things, *i. e.*, whatever is associated with a people's religious rites. The taboo concept includes both the sacred and the accursed, the holy and the unclean. The impurity of the taboo object has nothing to do with our notion of uncleanness. At a later stage of religious development (*e. g.*, among the Hebrews) the taboos are regarded as commands of the deity, but this is an *ex post facto* explanation. Earlier than any organized religion, man learns to dread the mysteriously dangerous and to avoid the same. The mysterious is dreaded as containing some dire infection which must be avoided either by non-contact or

ceremonial purification. 'Touch not the unclean thing' is the first categorical imperative. This primitive imperative, ethical in form but for the most part unethical in content, affords exactly the stepping stone, the missing link, that we need to bridge the chasm between the non-moral and the moral. Various writers on taboo have claimed for it great influence in developing respect for property, marriage, and human life; its deeper and more essential ethical value, however, was in giving the first impetus to the birth of that sense of oughtness which has made man a responsible moral being. Taboo is conscience in embryo.

Some Requisites of a Theory of Ethical Values. W. G. EVERETT.

[Read by title; no abstract furnished.]

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REVIEWS OF BOOKS.

The Origin and Development of the Moral Ideas. In Two Volumes. Vol. I. By EDWARD WESTERMARCK. London, Macmillan and Co.; New York, The Macmillan Company, 1906. — pp. xxi, 716.

The author of *The History of Human Marriage* has in this work taken up the larger problem of the history of human morality. He brings to his task, of course, the same wonderful erudition and the same rare critical acumen that characterized his former book. The result is what we should expect of Westermarck.

The introductory words remind one of Locke's account of the way in which he was led to write his *Essay*. "The main object of this book will perhaps be best explained by a few words concerning its origin.

"Its author was once discussing with some friends the point how far a bad man ought to be treated with kindness. The opinions were divided, and, in spite of much deliberation, unanimity could not be attained. It seemed strange that the disagreement should be so radical, and the question arose, Whence this diversity of opinion? Is it due to defective knowledge, or has it a merely sentimental origin? And the problem gradually expanded. Why do the moral ideas in general differ so greatly? And, on the other hand, why is there in many cases such a wide agreement? Nay, why are there any moral ideas at all?

"Since then many years have passed, spent by the author in trying to find an answer to these questions. The present work is the result of his researches and thoughts.

"The first part of it will comprise a study of the moral concepts: right, wrong, duty, justice, virtue, merit, &c. Such a study will be found to require an examination into the moral emotions, their nature and origin, as also into the relations between these emotions and the various moral concepts. There will then be a discussion of the phenomena to which such concepts are applied — the subjects of moral judgments. The general character of these phenomena will be scrutinised, and an answer sought to the question why facts of a certain type are matters of moral concern, while other facts are not. Finally, the most important of these phenomena will be classified, and the

moral ideas relating to each class will be stated, and, so far as possible, explained" (pp. 1, 2).

In Chapter I the author lays down his fundamental thesis of "the emotional origin of moral judgments." "That the moral concepts are ultimately based on emotions either of indignation or approval, is a fact which a certain school of thinkers have in vain attempted to deny. The terms which embody these concepts must originally have been used — indeed they are still constantly so used — as direct expressions of such emotions with reference to the phenomena which evoked them. Men pronounced certain acts to be good or bad on account of the emotions those acts aroused in their minds, just as they called sunshine warm and ice cold on account of certain sensations which they experienced, and as they named a thing pleasant or painful because they felt pleasure or pain. But to attribute a quality to a thing is never the same as merely to state the existence of a particular sensation or feeling in the mind which perceives it. Such an attribution must mean that the thing, under certain circumstances, makes a certain impression on the mind. By calling an object warm or pleasant, a person asserts that it is apt to produce in him a sensation of heat or a feeling of pleasure. Similarly, to name an act good or bad, ultimately implies that it is apt to give rise to an emotion of approval or disapproval in him who pronounces the judgment. Whilst not affirming the actual existence of any specific emotion in the mind of the person judging or of anybody else, the predicate of a moral judgment attributes to the subject a tendency to arouse an emotion. The moral concepts, then, are essentially generalisations of tendencies in certain phenomena to call forth moral emotions" (pp. 4, 5).

There seems to be a confusion here which is worth noticing. The ordinary man, in saying that sunshine is warm, does not necessarily mean that it produces in him a warm sensation. He may mean actually to attribute to the sunshine an objective quality of warmth. What he means to assert, *i. e.*, the content of his assertion, may or may not be in accordance with the facts; but whether his assertion, in the meaning it has for him, is confirmed or refuted by the facts has nothing to do with the question what his meaning is. If the truth of a statement were the criterion of its meaning, no statement could ever be false. Now, it may be that moral predicates, as a matter of fact, do not belong to acts *per se*, and that our emotions are the causes of our moral predications; but this, even if true, does not tell us the meaning of the moral predicates. An example will illustrate the point. *A* is not guilty of theft (matter of fact), and yet my dislike for him (cause of my judg-

ment) leads me, wholly against the facts, to interpret the chain of evidence as pointing to his guilt. Now when I say that he stole, my meaning is not to be interpreted from my motive, which is personal dislike: I do not mean to say that I hate the man. Nor is the meaning to be interpreted from the actual facts: else I could be made to mean that he did *not* steal. But Westermarck, in interpreting the meaning of moral predications, uses a principle that would justify these absurd constructions. He confuses the question of the *causes* prompting to moral judgments, with the very different question as to the *meaning* of moral predication. Both questions are treated indiscriminately in the chapter on the emotional *origin* of moral judgments.

But if moral judgments always mean to express only our emotional attitudes, how comes it that they have objectivity ascribed to them? This "illusive" objectivity is ascribed to them "partly on account of the comparatively uniform nature of the moral consciousness" (p. 9), and partly on account of custom (*ibid.*). "Society is the school in which men learn to distinguish between right and wrong. The headmaster is Custom, and the lessons are the same for all. The first moral judgments were pronounced by public opinion; public indignation and public approval are the prototypes of the moral emotions. As regards questions of morality, there was, in early society, practically no difference of opinion; hence a character of universality, or objectivity, was from the very beginning attached to all moral judgments" (p. 9). But, "besides the relative uniformity of moral opinions," due to custom and to the similarity of emotional constitution in men, "there is another circumstance which tempts us to objectivise moral judgments, namely, the authority which, rightly or wrongly, is ascribed to moral rules. From our earliest childhood we are taught that certain acts *are* right and that others *are* wrong. Owing to their exceptional importance for human welfare, the facts of the moral consciousness are emphasised in a much higher degree than any other subjective facts. . . . Thus the belief in a moral order of the world has taken hardly less firm hold of the human mind, than the belief in a natural order of things" (p. 14). "Authority is an ambiguous word. It may indicate knowledge of truth, and it may indicate a rightful power to command obedience. The authoritativeness attributed to the moral law has often reference to both kinds of authority. The moral lawgiver lays down his rules in order that they should be obeyed, and they are authoritative in so far as they have to be obeyed. But he is also believed to know what is right or wrong, and his commands are regarded as expressions of moral truths" (p. 15).

“The presumed objectivity of moral judgments thus being a chimera, there can be no moral truth in the sense in which this term is generally understood” (p. 17), and “if there are no general moral truths, the object of scientific ethics cannot be to fix rules for human conduct,” but “to study the moral consciousness as a fact” (p. 18).

Dr. Westermarck frankly characterizes his general theory of the emotional origin of the moral concepts as “ethical subjectivism” (pp. 18, 19). He denies its dangerous consequences, although, of course, even if there were such, they would not disprove the truth of the theory. Ethical subjectivism, as propounded by the author, “certainly does not allow everybody to follow his own inclinations; nor does it lend sanction to arbitrariness and caprice. Our moral consciousness belongs to our mental constitution, which we cannot change as we please. We approve and we disapprove because we cannot do otherwise. Can we help feeling pain when the fire burns us? Can we help sympathising with our friends? Are these phenomena less necessary, less powerful in their consequences, because they fall within the subjective sphere of experience? So, too, why should the moral law command less obedience because it forms part of our own nature?” (p. 19). In fact, instead of being a dangerous doctrine, the adoption of it would bring about beneficial results. Men would become “more tolerant in their moral judgments,” and there would be more progressiveness in the moral life (p. 20).

If, now, moral judgments are those that are called forth by moral emotions, the question next arises as to what are the moral emotions. This question is answered at length in Chapters II, III, IV. “These emotions are of two kinds: disapproval, or indignation, and approval. They have in common characteristics which make them moral emotions, in distinction from others of a non-moral character, but at the same time both of them belong to a wider class of emotions, which I call retributive emotions. Again, they differ from each other in points which make each of them allied to certain non-moral retributive emotions, disapproval to anger and revenge, and approval to that kind of retributive kindly emotion which in its most developed form is gratitude” (p. 21). “Moral disapproval is a kind of resentment and akin to anger and revenge,” and “moral approval is a kind of retributive kindly emotion and akin to gratitude” (p. 22). There is a long discussion of the nature of resentment and revenge, but into this we cannot go here. The position upheld by Westermarck, against Steinmetz, is that revenge is not indiscriminate in its application, but

is directed normally towards the aggressor. Even the fact of collective responsibility among primitive peoples does not interfere with this theory. "The fact that punishments for offences are frequently inflicted, or are supposed to be inflicted, by men or gods upon individuals who have not committed those offences, is explicable from circumstances which in no way clash with our thesis that moral indignation is, in its essence, directed towards the assumed cause of inflicted pain. In many cases the victim, in accordance with the doctrine of collective responsibility, is punished because he is considered to be involved in the guilt — even when he is really innocent — or because he is regarded as a fair representative of an offending community. In other cases, he is supposed to be polluted by a sin or a curse, owing to the contagious nature of sins and curses. The principle of social solidarity also accounts for the efficacy ascribed to vicarious expiatory sacrifices; but in many instances expiatory sacrifices only have the character of a ransom or bribe" (pp. 69, 70).

But though moral disapproval is a species of resentment, "its aggressive character has become more disguised" in the course of evolution (p. 73). Forgiveness has taken the place of retaliation, in some of the more advanced civilizations. "The rule of retaliation and the rule of forgiveness, however, are not so radically opposed to each other as they appear to be. What the latter condemns is, in reality, not every kind of resentment, but non-moral resentment; not impartial indignation, but personal hatred. It prohibits revenge, but not punishment" (p. 77). Now in punishment the ground motive is retributive. The author undertakes to show that neither the deterrent nor the reformatory theory of punishment does justice to the facts, and he subjects both theories to a critical examination. His conclusion can be expressed in two sentences. "Punishment can hardly be guided exclusively by utilitarian considerations, but requires the sanction of the retributive emotion of moral disapproval" (p. 82), and "the principle of reformation has thus itself a retributive origin" (p. 88).

In Chapter IV the author discriminates moral disapproval from anger and revenge, and moral approval from gratitude. One of the *differentia* is the disinterestedness of the moral emotions. "The predicate of a moral judgment always involves a notion of disinterestedness. . . . A moral judgment may certainly have a selfish motive; but then it, nevertheless, pretends to be disinterested, which shows that disinterestedness is a characteristic of moral concepts as such" (p. 101). "Disinterestedness, however, is not the only characteristic by which moral

indignation and approval are distinguished from other, non-moral, kinds of resentment or retributive kindly emotion. It is, indeed, itself a form of a more comprehensive quality which characterises moral emotions—apparent impartiality” (p. 103). “A moral emotion, then, is tested by an imaginary change of the relationship between him who approves or disapproves of the mode of conduct by which the emotion was evoked and the parties immediately concerned, whilst the relationship between the parties themselves is left unaltered. At the same time it is not necessary that the moral emotion should be really impartial. It is sufficient that it is tacitly assumed to be so, nay, even that it is not knowingly partial” (p. 104). “Finally, a moral emotion has a certain flavour of generality” (p. 104). The generality is illusory, but still when one judges morally, one feels that his judgment “*would be* shared if other people knew the act and all its attendant circumstances as well as he does himself, and if, at the same time, their emotions were as refined as are his own. This feeling gives to his approval or indignation a touch of generality, which belongs to public approval and public indignation, but which is never found in any merely individual emotion of gratitude or revenge” (pp. 104-5).

Now another problem arises. How comes it that the emotions of resentment and non-moral gratitude acquire these touches and flavors of disinterestedness, impartiality, and generality? Chapter V, “The Origin of the Moral Emotions,” answers this question.

As to disinterestedness, the answer is easy. “It is obvious, then, that sympathy aided by the altruistic sentiment—sympathy in the common sense—tends to produce disinterested retributive emotions” (p. 111). This reminds one of Adam Smith’s *Theory of the Moral Sentiments*, to which the author refers in this connection. But when Westermarck comes to account for generality and impartiality as *differentiæ* of moral emotions, he emphasizes the social environment, which Adam Smith did not make very much of. The problem here seems also to change on our hands. “However, the real problem which we have now to solve is not how retributive emotions may become apparently impartial and be coloured by a feeling of generality, but why disinterestedness, apparent impartiality, and the flavour of generality have become characteristics by which so-called moral emotions are distinguished from other retributive emotions. The solution of this problem lies in the fact that society is the birthplace of the moral consciousness; that the first moral judgments expressed, not the private emotions of isolated individuals, but emotions which were felt by the

society at large ; that tribal custom was the earliest rule of duty" (pp. 117, 118). "The most salient feature of custom is its generality. Its transgression calls forth public indignation ; hence the flavour of generality which characterises moral disapproval. Custom is fixed once for all, and takes no notice of the preferences of individuals. By recognizing the validity of a custom, I implicitly admit that the custom is equally binding for me and for you and for all the other members of the society. This involves disinterestedness ; I admit that a breach of the custom is equally wrong whether I myself am immediately concerned in the act or not. It also involves apparent impartiality ; I assume that my condemnation of the act is independent of the relationship in which the parties concerned in it stand to me personally, or, at least, I am not aware that my condemnation is influenced by any such relationship. And this holds good whatever be the origin of the custom" (pp. 120, 121).

But while custom explains the disinterestedness, impartiality, and generality of moral emotions, "custom is a moral rule only on account of the indignation called forth by its transgression. In its ethical aspect it is nothing but a generalisation of emotional tendencies, applied to certain modes of conduct, and transmitted from generation to generation. Public indignation lies at the bottom of it" (p. 121).

Having thus examined in detail the nature and the origin of the moral emotions, the author proceeds in Chapter VI to analyze the moral concepts, which are "generalisations of tendencies in certain phenomena to call forth" these "moral emotions" (p. 5). This analysis is in order to show the connection between the moral concepts and the moral emotions.

One of the most striking features of the analysis is that many of the concepts usually considered to be positive in character are, according to the author's analysis, negative, and are directly connected with the emotion of disapproval, not with that of approval. "Ought" is analyzed into a conation *plus* a potential indignation at the thought that what ought to be done may be omitted. "The conation expressed in 'ought' is determined by the idea that the mode of conduct which ought to be performed is not, or will possibly not be, performed. It is also this idea of its not being performed that determines the emotion which gives to 'ought' the character of a moral predicate. The doing of what ought not to be done, or the omission of what ought not to be omitted, is apt to call forth moral indignation — this is the most essential fact involved in the notion of 'ought.' Every 'ought'-judgment contains implicitly a negation" (p. 135).

Duty is treated as synonymous with obligation. Even "right," whether used as an adjective or as a noun, expresses a moral conception that is essentially negative. Wrong (adjective) is not defined as not-right, but on the contrary, right (adjective) is defined as not-wrong. "The concept of 'right,' then, as implying that the opposite mode of conduct would have been wrong, ultimately derives its moral significance from moral disapproval. This may seem strange considering that 'right' is commonly looked upon as positive and 'wrong' as its negation. But we must remember that language and popular conceptions in these matters start from the notion of a moral rule or command. . . . But the fact which gives birth to the command itself is the indignation called forth by the act which the command forbids, or by the omission of that which it enjoins" (pp. 138-9). "Right" as a substantive is also treated negatively. "To have a moral right to do a thing means that it is not wrong to do it," and also "that it would be wrong of other people to prevent" the doing of it (p. 139). Still again, "an act is 'just,' in the strict sense of the word, if its omission is unjust" (p. 142).

Of course there are moral conceptions that are rooted in the emotion of approval. They are goodness, virtue, merit, etc.; but the moral attitude is predominantly negative, one of disapproval, rather than of approval, hence the generalizations of tendencies which put us into the moral attitude must result in negative conceptions rather than in positive.

These six chapters just reviewed in some detail, present the most important features of Westermarck's ethical theory. There are six other chapters devoted to theory, and the remaining portion of the volume, pp. 327-716, is not so much theory as statement of fact. The subjects treated, ethnographically and historically, are homicide in general; the killing of parents, sick persons, children; feticide; the killing of women, and of slaves; the criminality of homicide influenced by distinctions of class; human sacrifice; blood revenge and compensation; the punishment of death; the duel; bodily injuries; charity and generosity; hospitality; the subjection of children; the subjection of wives; and slavery.

Every one who is acquainted with *The History of Human Marriage* is prepared to find a most painstaking and comprehensive, one is tempted to say exhaustive, presentation of accessible facts bearing on the general subject of the book. The interpretation of these facts may here and there be questioned, but the important thing is to have the facts collected so as to be within easy reach. Ethical theorists should

find the work invaluable, as thus furnishing them with concrete facts to rest their theories on or to test their theories by. The sociologist will find illuminating discussion of many customs, while the general reader, if interested in matters of universal human concern, cannot fail to get much pleasure and instruction from the reading of the book.

Altogether it is perhaps safe to say that the work is the most important contribution to ethical literature within recent years.

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Idola Theatri: A Criticism of Oxford Thought and Thinkers from the Standpoint of Personal Idealism. By HENRY STURT. London, Macmillan & Co.; New York, The Macmillan Co., 1906. — pp. xvii, 344.

This work is a deliberate effort to follow up the campaign of enlightenment begun in the series of essays entitled *Personal Idealism*, of which, as it will be remembered, the author was editor. "The indignation with which Mr. Bradley and the Hegelians have greeted the advent of pragmatism shows that the Idols of the Theatre criticised in the following pages possess an importance not merely historical, and that they have to be driven from the field before voluntarism can get a fair hearing" (p. 6). It is with the intention of contributing to this result, and, as it may be presumed, of enforcing the "new way of ideas," that the author has written and published this controversial pamphlet of over three hundred pages. Speculative power of no mean order, as well as courage, is indispensable in an attack upon such vigorous thinkers as Hegel, the late T. H. Green, Dr. F. H. Bradley, and Professor Bosanquet. I do not doubt that an enlightened and sympathetic criticism of English idealism would be opportune at the present time; but it could only be written by one who knew Hegel from the inside, and not simply through the medium of what Dr. Hutchison Stirling would call "the literature of the subject," and who was able to appreciate at their full value the contributions of the English representative idealists. Whether the author possesses the qualities required in so bold an adventure may be fairly doubted.

The prime mistake of past philosophy, we are told, is the "Passive Fallacy," which consists in a "tendency . . . to overlook the element of activity in the human self, and to regard the world at large as mutable only through defect and infirmity, or even as static beneath its appearance of change" (p. 8). This fallacy is obvious in

cosmology. "Science depends on the discovery of uniformities in the flux of phenomena," and as "in the eye of science a law is vastly more important than its concrete examples," thinkers "have been wont to concentrate attention upon the uniformities, to emphasize them as the true realities, and to speak slightingly of the mutable concrete facts as unreal. So must we explain the tendency to regard nature as a fixed system of laws, and as being in its essence statical, however it may appear to change. . . . Reflection ought to bring us back to see that it is the concrete facts which count, and that laws are constructed to help us in understanding the concrete past and present, and in predicting and managing the future" (pp. 12-13). The Passive Fallacy "applies no less to religion. In the dynamic view God is to be regarded as an energy continuously manifested; in the static view the fixed rules of divine action alone are real. Thus it has become usual to apply to God every epithet expressing permanence; in Him there is no variableness nor shadow of turning. . . . so potent has the static prejudice grown that to attribute change to God will seem almost pagan" (p. 13). Lastly, in the mental sciences the Passive Fallacy is "helped by the clear severance which early analysis makes between human faculties. . . . Each man is one being, and thinks and acts as one;" whereas, "in logic, particularly, the intellect has been treated as separable from conation. . . . It will be the task of logic in the future. . . . to prove that logical functions and concepts are moulded and penetrated every way by conative experience" (p. 14).

These sentences are typical of the kind of criticism which runs through the whole of the book. Plato, Hegel, and other thinkers are supposed to deny the reality of change; and to affirm that nature is "statical," "fixed rules of divine action alone being real"; and to "regard the intellect as separable from conation." These charges seem to me to be due to misapprehension. None of the thinkers referred to denies "change"; what they deny is that the changes which undoubtedly go on in the world are such as to involve absolute origination or destruction. Does a scientific man deny "change," when he maintains the doctrine of the "conservation of energy"? When an idealist of the older type denies that the Absolute is in process of origination or decease, does he therefore deny that there are changes in the finite? And how can it be shown that, in refusing to admit truth to be only what helps to realize human purposes, and affirming knowing, feeling, and willing to be distinctions within a single self-conscious subject, we lay ourselves open to the charge of breaking up the unity of the subject into separate faculties?

Some light is thrown upon these extraordinary misconceptions by the indefinite phraseology employed. What are we to understand by the statement that science "depends upon the discovery of uniformities," and that "laws are constructed to help us in understanding the concrete past and present, and in predicting and managing the future"? It is a fundamental principle of all modern science, no doubt, that there are "uniformities" or "laws" in nature; nor does any idealist deny that they "help us in understanding the concrete past and present, and in predicting and managing the future." But the question is whether nature is to be conceived as merely permitting the realization of human purposes, or whether nature and man constitute a unity of such a character that together they form an indissoluble whole. Are "laws" the statement of an actual system, or merely regularities in an accidental assemblage of objects and events, which we contrive to turn to our advantage, but which for aught we know have no rational connection? The "personal idealist," so far as I have been able to see, never clearly makes up his mind which of these views he is prepared to adopt. He takes advantage of the doctrine that the world is a rational system, while making assertions that render the whole conception unmeaning.

"Intellectualism" is the next object of attack. "The intellectualist can only be defined in the most general terms as one who attempts to explain everything in terms of thought or reason, to the neglect of other sides of our experience, more particularly of sensation and volition" (p. 16). The philosophy of Hegel, the purest type of "panlogism," "regards all experience as thought." Hence it "denies more or less explicitly various generally accepted characteristics of thinghood. One of these characteristics is alienness from spirit. Every form of idealism claims that by deeper insight this alienness may be transcended, and that matter is ultimately to be regarded as a form of spirit; but every one, except the panlogist, will admit that at any view-point short of ultimate, things are not spiritual; they persist stubbornly in their own mode of existence. This gulf between the spiritual existence of persons and the unspiritual existence of things must be ignored by the panlogist" (p. 30).

Are we to understand that from an "ultimate view-point" the "alienness" of things is "transcended"? If so, the crime of the "panlogist" seems to consist in stating what is true, — unless, indeed, we are to distinguish between an "ultimate" and a "true" point of view. Or is his offence an endeavor to establish this "ultimate view-point" by a rigid criticism of lower categories, among them that of

“thinghood”? “Personal idealism” must really decide whom it will serve. If it elects for the crass dualism of common sense, it had better avoid all assertions about the “spirituality” of matter; if it is serious with idealism, it must cease to affirm that “things persist stubbornly in their own mode of existence.”

Two foes still remain to be dealt with: “Absolutism,” which rejects personality in favor of the Absolute, and “Subjectivism,” which arises from over-emphasis on the subjective side of experience. With the former Mr. Bradley is deeply infected, though, in contrast to Hegel, he conceives the Absolute under the form of feeling. The impracticability of his “feeling-absolutism” is illustrated by his treatment of such ontological conceptions as space and time, and above all of personality. These are condemned as “radically unsound,” simply because they “involve relation” (p. 90). Mr. Bradley’s attack, however, is held to be “quite ineffective” (p. 91). One naturally supposes that this defence of space, time, and personality is meant to show that these conceptions are true determinations of reality. The reader who has fallen into this mistake is soon undeceived. “From this defence of time [and space],” says Dr. Sturt, “it should not be inferred that I wish to affirm their ultimate validity and to argue that they hold good absolutely. The obvious fact is that they are human conceptions, relative to human faculties and purposes, and not valid beyond them. An absolute consciousness has doubtless its appropriate categories or cosmological conceptions; but we cannot tell what they are, except that they must be different from ours” (p. 94.) As the author up to this point has been contending for the reality of time and space, it is somewhat of a shock to learn that after all he denies their “ultimate validity,” does not admit that they “hold good absolutely,” declares them to be merely “human conceptions,” and informs us that they are “evidently inappropriate to an absolute being.” If so, it is obvious that by “reality” can only be meant “appearance.” If our categories differ from those of an “absolute consciousness,” they must differ for the worse, unless, indeed, there are two kinds of “realities” and two kinds of intelligence; and if this is his ultimate line of defence, the author may be invited to explain how an intelligence such as ours, capable only of dealing with its own species of “reality,” contrives to establish the existence of a “reality” comprehensible only by an intelligence armed with categories of which we can say nothing but that they “must be different from ours.” Moreover, as “personality” must share in the general disability of all “human conceptions,” we are entitled to apply to it what our author says of time and space:

it has no "ultimate validity," but is "merely a human conception, relative to human faculties and purposes." How "personality" is to be defended in this way it is difficult to see.

In dealing with "Subjectivism" our author tells us that "if we start with assuming that the self is limited in the first instance to its conscious states, we shall have much difficulty in explaining how it gets outside them" (p. 139). With this contention the ordinary idealist will agree, except that he will be disposed to declare without reservation that a self so limited must remain forever imprisoned within its "conscious states." Our author, however, seems to have forgotten that, in criticising the "absolutist's" view of personality, he has told us that "it is a statement of the plainest fact to say that a soul is more separate from its environment than a crystal from its solution" (p. 97). Apparently he does not see that the dualist, who begins with the abstract opposition of subject and object, is forced by a remorseless logic to deny all knowledge of the object by the subject, and is thus open to the same criticism as the solipsist.

In the criticism of individual thinkers, we meet with some extraordinary judgments. We are told, for example, that Hegel "had a mind which was essentially unclear"; a remark which reminds one of the Scotch student who, when taxed with misconstruing Cicero, defended himself by saying that he thought the text was "rayther confused." In more than one passage (pp. 182n., 203, 271) Hegel's "sensuous certitude" is referred to as a flagrant instance of his "utterly arbitrary and fantastic" mode of treatment. Hegel, we are informed, "there undertakes to prove that immediate sense-experience (*sinnliche Gewissheit*) gives us nothing but pure being (*reines Seyn*)." It would be hard to imagine a more inept criticism. Hegel makes no attempt to "prove" that sensation gives us nothing but *reines Seyn*: he *describes* the first attitude of consciousness as that of an uncritical belief in the immediate reality or "being" of the object, the attitude in fact of common sense, as represented by Locke. The problem is precisely the same as that dealt with by Plato in the *Theætetus*, and indeed Hegel obviously received from that dialogue, combined with the corresponding discussion of the "Sensible" in Aristotle's *Metaphysics*, the suggestion to press home the consequences of reducing knowledge to immediate, sensible apprehension. Anyone who gets at the right point of view will see that Hegel is perfectly right in saying that pure or unrelated "being" is the only determination of *thought* here explicitly employed, and cannot fail to admire the masterly way in which it is shown that, taken at its word,

the sensuous consciousness dissolves experience into nothingness. The notion that Hegel is here attempting to reduce the concrete differences of sensation to "pure being" is wide of the mark: what he contends for is, that, whatever may be the sensuous differences of things, they cannot be known in a purely immediate consciousness.

Much has yet to be done, especially in the characterization of the organic system of categories, and in the better comprehension of the relations of nature, man, and the Absolute; but that desirable end will certainly not be advanced by an uncritical use of popular categories. If "personal idealism" is to be more than an appeal to the average cultivated mind, it must discard its untenable oppositions of thought and will, nature and personality, man and God. Whatever changes are in store for us, it is certain that such abstract antitheses as these have had their day, and can bring satisfaction to no one who is serious with philosophy.

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Geschichte der neueren deutschen Philosophie seit Hegel: Ein Handbuch zur Einführung in das philosophische Studium der neuesten Zeit. Zweite vermehrte und verbesserte Auflage. Von OTTO SIEBERT. Göttingen, Vandenhoeck und Ruprecht, 1905.—pp. x, 598.

The first edition of Dr. Siebert's *History* was published in 1898. Now, after an interval of seven years, the second edition appears, "enlarged and improved," with notice taken of the criticisms which were offered on the earlier work, but also with the aim of the writer substantially unchanged. His purpose still is to accomplish the most difficult task of giving a lucid and full account of the philosophical movements of the latest years. Beginning with the school of Hegel, he traces the development of German thought through the followers of Fichte, Herbart, Fries, Schopenhauer, and others; in Part Second advances to the discussion of the progress of the natural sciences and their influence on philosophy; in Part Third considers the newer attempts at systematic construction (Fechner, Lotze, Wundt, Eucken, Schuppe, and others); and concludes his work with a new section on "The Particular Philosophical Sciences" and an appendix defining the fundamental philosophical concepts.

Besides a definite purpose in writing, Dr. Siebert has a settled philosophical position, and a characteristic historical method. For himself he is a convinced follower of Eucken, to whom he does not hesitate to ascribe the foremost place among the constructive thinkers of the time (pp. 5, 490). As an historian he is to be classed most nearly

with those who adopt an objective point of view, stating a philosopher's conclusions often in the words of the philosopher himself. The plan of his treatise is inclusive, with attention given not only to the leaders of later speculation, but also to their followers, down to the inquirers of the second, or even the third, rank of importance, as they would be estimated by the majority of their contemporaries. In either case the attempt is made to give a clear account of the principal doctrines of the thinker under consideration. If he is one of the masters, — Lotze, Wundt, Von Hartmann, for example, — the discussion is naturally more extended than in the case of lesser names; but it is a characteristic feature of the work that it supplies information concerning a large number of philosophers whose systems are dismissed by other historians with only cursory treatment. But the aim is always graphic representation, with at intervals suggestions of the positions which the author himself considers the best grounded. Completeness of statement, on the other hand, is not uniformly attained; and while it does not come within the writer's scheme to give a documentary history of opinion, it is a matter for regret that the bibliographical notes are less full than in an account of the most recent thinking it was desirable that they should be.

The original edition of Siebert's book met a mixed reception. It was praised as a meritorious attempt to furnish a needed history of the latest thinking; it was also criticised as defective alike in the details of the work and in its general outline. The critics, in the first instance, pointed out errors of interpretation, the severest censure that has come to the notice of the present reviewer being visited on the account of Nietzsche (*cf.* F. Medicus, *Kantstudien*, IV, p. 121). These deficiencies, moreover, are not confined to the discussions of particular systems, but, to the reviewer's mind, appear more seriously in the treatment of the broader movements and their interconnections. At the beginning of the book, it is correctly stated that the dissension within the Hegelian school was active in producing the decline of Hegel's influence; but the pressure from without, due to the discrepancy between the master's *a priori* constructions and the results of concrete history and science, is passed unnoticed (p. 7-8). To English and American readers, at least, a fuller specification of the relation between Hegelianism and the earlier socialism would have been welcome (pp. 22-2.6) In the section entitled "Helmholtz und seine Gesinnungsgenossen," the transition from the earlier to the later *Energetiker* is mediated by the sentence: "Die Mayer-Joule-Helmholtzschen Gedanken haben viele Freunde gefunden" (p. 301). In-

terpreted as referring to the scientific principle of the conservation and correlation of energy, this is obviously inadequate; referred to philosophical energetics, it lacks much by way of clearness and precision. In the account of Darwinism and its bearing on reflective thinking, it is remarkable that Weismann is dismissed with a scant six lines of book-titles (p. 331); and a careful statement of the rise and influence of the neo-Lamarckian school would make a valuable substitute for the author's summary criticism of Darwinism in its original form (pp. 333-4).

Such examples as these are worth consideration, also, because they raise a larger question. The first edition of Siebert's work was blamed as lacking in the matter of genetic explanation. In the preface to the present issue he defends himself against the charge, on the ground that a genetic history of the present and the recent past is rendered impossible by the proximity of the movements to be explained. In support of this position he appeals to Vorländer (p. vi); and he will find further confirmation of his view in the latest notice of his book, by Siebeck (*Zeitschrift für Philosophie und philosophische Kritik*, July, 1906, pp. 191-193). It is questionable, however, whether the objection can be met so easily. A complete genetic account of the latest developments of reflective thinking is no doubt impossible. But there is a considerable difference between completeness and inadequacy; and it must be remembered that the history before us begins with the years succeeding the death of Hegel, that is, three quarters of a century ago. In the reviewer's judgment, much more might be here accomplished than the author has attempted, and the uncertainty of his touch when he approaches the great lines of historical development is one of the chief remaining imperfections of his work.

In another respect,—the introduction of critical remarks,—the author has yielded to his critics instead of resisting them, but again with less than full success. The content of the judgments passed is often sound; their form is nearly always open to objection, as at times the outcome to which this manner leads. For the method of criticism is dogmatic rather than historical, with the writer's negative comments occasionally interpolated into his account of a given philosopher or system. An example may be cited from the section on "W. Wundt und der Psychologismus." Between the exposition of Wundt's metaphysical and psychological positions and the statement of his views on freedom and responsibility, opportunity is made for a statement and destructive criticism of psychophysical parallelism, culminating in the assertion that parallelism is logically tantamount to materialism

(pp. 453-459). Further instances of Siebert's critical methods are his discussions of Nietzsche (pp. 243-250), of materialism (pp. 352-356), of Avenarius and positivism (pp. 362-365), of Jodl and ethical culture (pp. 376-377).

But it would be unjust to dwell on these shortcomings. They detract, indeed, from the merit of the work, which in its present form fails to reach the level of the classical authorities. But alike in plan and execution it is much more than a preparatory study, as the author modestly terms it (p. vi), for the mature genetic history which the future alone can supply. In the second edition it constitutes a valuable account of later German speculation; in fact, it is perhaps the most nearly complete and thorough treatise on the subject which we now possess. And if the author, with his evident historical instinct, will continue to develop and coördinate his material, it will take still higher rank in the issues which the coming years are sure to bring.

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The Psychology of Beauty. By ETHEL D. PUFFER. Boston and New York, Houghton, Mifflin, and Co., 1905. — pp. vii, 286.

The serious study of æsthetics is experiencing a revival no less notable than the revival of a half century ago — the period of Vischer and Zeising, of Hay and Fechner. The tone of the earlier revival was mixed; it was partly philosophical, partly historical, and partly scientific. The traditions were philosophical, while the spirit of the times was inclined toward science. The tone of the present revival is more strongly empirical; and its empiricism bears greater promise, both because it rests upon a broader basis of fact than the former, and because it turns to account new and improved methods of research. With scores of studies in 'experimental æsthetics,' with elaborate doctrines of the 'elementary æsthetic feelings,' and with the whole pattern of psychology before it, the 'new æsthetics' attempts, with a better chance of success, the analysis and explanation of the enjoyment of beauty; the difficult task that the courageous Burke set himself before the days of modern mental and biological science.

The Psychology of Beauty represents, in a conservative manner, present tendencies in æsthetics. While conceding to philosophy the right to define beauty, it reserves for psychology and biology the task of describing the means through which the beautiful object is apprehended; *i. e.*, the task of describing the æsthetic experience. "The beautiful object possesses those qualities which bring the personality into a state of unity and self-completeness," but "personality, as

dealt with in psychology, is but the psychophysical organism, and we need to know only how to translate unity and self-completeness into psychological terms." 'Unity' means, thus translated, "a state of repose, without tendency to change." 'Self-completeness' means a condition of "favorable stimulation, the highest possible point of tone, of functional efficiency." *Æsthetic* repose is further defined as tension, equilibrium, balance of forces, the inhibition of impulse or action by counter-impulse or action; favorable stimulation is, likewise, harmonious functioning, enhanced life, a heightening of the vital energies.

The greater part of the book is occupied with the discussion of these two factors in *æsthetic* enjoyment — stimulation and repose — and with the application of the factors to the various forms of beauty.

In the fine arts, favorable stimulation is effected by exciting color-tones (reds and yellows), strong saturations, brightnesses and contrasts, and by imitative movements of the whole motor mechanism; repose, in the same works, by space-composition, *i. e.*, by geometrical and "substitutional" symmetry, "subjectively the balance of attention." "It is to the eye and all that waits upon it that the first and the last appeal of fine art must be made." In music, rhythm "fulfills a need," furthers the "natural functioning" of the organism, and therefore stands for favorable stimulation; while the completeness of the rhythmical unit, as well as the melodic form, ministers to repose. "The *æsthetic* emotion for music is then the favorable stimulation of the sense of hearing and those other senses that are bound up with it, together with the repose of perfect unity." In literature, "the art of experience," repose comes through the ideal representation of the "meaning of life as a whole" (real literature is said to possess the "repose of centrality"); or, again, through a volitional attitude. "If we accept, affirm, profoundly rest in what is presented to us, we have the first condition of that repose which is the essence of the *æsthetic* experience." Favorable stimulation seems to come (the point is not clear) from the fulness, the vividness of life portrayed in literary works. The drama, whether tragedy or comedy, involves "confrontation" of characters, and hence conflict, tension, balance, repose. The *æsthetic* pleasure of the experience is here definitely described as a unique emotion, resident in the spectator. The enhanced life of the spectator — therefore favorable stimulation — seems also (though again the matter is obscure) to be derived from the vividness of the dramatic experience.

The value of the book largely rests upon the validity of these two

explanatory principles, 'favorable stimulation' and 'repose.' It is then of primary importance to observe that the words are employed in several different senses — biological, physiological, psychological, and 'personal.' Their psychological interpretation is suggested both by the title of the book and by the declaration that the science of æsthetics is to be "developed as a system of laws expressing the relation between the object and æsthetic pleasure in it." Again, the biological cast of the terms appears in the light of such expressions as the following: "harmonious functioning of the human organism," "healthy action" of bodily organs, "organic reverberation"; while the personal or volitional aspect of at least one of the two terms comes out clearly in the chapter on "The Beauty of Literature," where the æsthetic quality of things is said to lie in the identity of the world with our "deepest wills." And, finally, at the end of the volume, the author declares that "the psychophysical state known on its feeling side as æsthetic pleasure" is "first, a kind of physiological equilibrium . . . secondly, a psychological equilibrium . . . and thirdly, a quietude of the will, in the acceptance of the given moral attitude for the whole scheme of life."

In the opinion of the present writer, the author has, in her three-fold root of the æsthetic experience, introduced an element of confusion. In her attempt to transcend the venerable terms 'unity' and 'perfection' (or 'self-completeness') she has made use of concepts — 'stimulation,' 'tension,' 'balance of organic energies,' etc., — that are primarily and essentially physiological in meaning. The psychological and æsthetic employment of these words is at best, therefore, — barring explicit definition — only analogical. There is, one may say, no one state, thing, or process that is, in the body, 'repose,' in the mind, 'repose,' and in the personal attitude, 'repose'; at least no identity in the three realms is made apparent in the exposition. The repose resulting from antagonistic tensions in the eye-muscles, *e. g.*, is surely not identical with the "centre of repose" given by "the underlying identity of ourselves with the world," or with the "perfect reposeful harmony of human nature in its entirety." And favorable stimulation of the nervous system we should hardly expect *to come to consciousness* as favorable stimulation, but as strong feeling, or as vivid sensation, or as rapid flow of ideas; while the identification of 'enhanced life' in the biological sense (whatever the phrase may exactly mean) with 'the sense of life,' the 'moment of perfection,' in which literature "reveals ourselves to ourselves," is well-nigh as far-fetched as mediæval cures effected on the principle of natural sympathy.

If 'unity' and 'perfection,' 'harmony' and 'self-completeness' are stale and barren terms, 'favorable stimulation' and 'repose,' 'enhanced life' and 'centrality' are, at best, vague and ambiguous; and it is, I think, their indiscriminating use that accounts for an element of obscurity, not to say inconsequence, in the author's doctrine of the beautiful. This element appears most strikingly, perhaps, in the appeal to the "triumphant will," a factor which is declared to be essential to the æsthetical enjoyment of music, drama, and literature, but which properly reduces neither to 'favorable stimulation' nor to 'repose.' The ambiguity in question works its most serious harm, however, in the temptation it offers to confuse the æsthetic consciousness with the underlying physiological conditions of æsthetic feeling. The result is that the unique and specific emotion of "undefined exaltation" that forms the very heart of the psychology of beauty comes out in the exposition almost by accident, and receives nowhere an adequate analysis. If emphasis had been laid upon this all-important "æsthetic" emotion, instead of upon the 'reaction' theory of emotions in general, the work would have been more a psychology and less a biology of beauty.

If, finally, we bring back favorable stimulation and repose to their primary physiological meaning, we have still to ask whether they furnish, when stripped of figure and analogy, a satisfactory basis for a doctrine of æsthetics.

It is, clearly, in music and the fine arts of vision that the doctrine is most plausible; for these arts make, of all forms of beauty, most direct appeal to the senses. But even here the theory is defective. In the matter of color-preference, the facts are too few and the observations too contradictory to warrant the sweeping statement that "the eye loves warmth, light, strong color effects,"¹ and, moreover, the 'balance' theory of composition is, as I have tried elsewhere to show,² too hypothetical for easy acceptance. Should the theory find factual support it would still be difficult to understand why, for example, yellow or the combination of contrasting colors or the right-

¹ The author appeals to the dynamogenic effects of color, but fails to note a corresponding phenomenon in the organic response to tastes. Quinine and bouillon, *e. g.*, seem (Ch. Féré, *Sensation et mouvement*, 1887, pp. 47 ff.) to possess dynamogenic properties quite out of proportion to their ability to produce the "perfect moment" of æsthetic exaltation; but — *de gustibus non disputandum!* It may be noted that green, to which the text accords a small æsthetic value, was found, in later experiments of Féré's (*Travail et plaisir*, 1904, p. 105) to produce "the maximum of stimulation with the minimum of fatigue."

² This REVIEW, Vol. XIV, 1905, p. 255.

left balance of a picture should call forth the emotion of "undefined exaltation" or should determine the triumphant will. In explanation of the sensuous factor in music, the theory is more convincing, though the reference of the pleasure in rhythm to natural fluctuations of attention, is, at the present stage of the problem of attention, somewhat fanciful.

But it is when we pass to the arts of 'ideas' and 'meanings' that the physiological powers invoked lose their efficacy and tend to degenerate into formal principles. It is not strange that the 'triumphant will' and the aggressive personal attitude should then be brought forward to save the day and to preserve the doctrine. It is precisely then that 'favorable stimulation' and 'repose' suffer a complete metamorphic change and appear henceforward, as we have seen, under the indeterminate forms of 'enhanced life,' 'expanded experience,' and 'self-revelation.'

The Psychology of Beauty is composed of a series of delightful essays whose charm can escape neither the casual nor the critical reader. Its difficulties are exactly the crucial difficulties of the subject. The first and greatest of these is the discovery — if, indeed, the thing exists! — of the common psychological factor in æsthetic experience. If the book slips unwittingly into the physiology of beauty and into a metaphysical doctrine of the will, that is because the backbone of the psychological problem of æsthetics has never really been broken; and until a thoroughgoing analysis of the æsthetic experience has been carried through, the "new æsthetics" cannot be said to have won a permanent place among the sciences.

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NOTICES OF NEW BOOKS.

Saggi sulla teoria della conoscenza. Saggio secondo filosofia della metafisica. Parte prima: La causa efficiente. Da COSMO GUASTELLA. Palermo, Reno Sandron, 1905. — Vol. I, pp. 762; Vol. II, pp. 470, ccxxv, 273.

The first of these Essays on the Theory of Knowledge appeared in 1898. Its special title was "Sui limiti e l'oggetto della conoscenza *a priori*." This careful study of the limits and object of *a priori* knowledge paved the way for the more comprehensive examination of the philosophy of metaphysics now presented in the second essay. It was widely recognized at the time as a very able defense of empiricism from a new point of view. Even critics who were not able to accept the author's fundamental positions freely expressed their admiration for his extensive reading, wealth of ideas, vigorous reasoning, and constructive power. An inquiry into the nature of abstract ideas had led Professor Guastella to a radical and consistent nominalism. He not only found himself in agreement with Roscelinus, Abélard, and Occam on the general thesis that *universalia sunt nomina*, but was also forced by an inexorable logic to admit certain corollaries of this position which would have made the boldest mediæval thinker pause. He was obliged to reject conceptualism in every form, the so-called 'synthetic judgment,' every vestige of metaphysics. If the universals are only words, with no objective reality corresponding to them, all knowledge originates in sense-perception, proceeds from experience, grows with observation and interpretation of the sense-given material. *A priori* knowledge of the real is impossible. Simultaneousness and succession, the marks of the phenomenal world, can only be known *a posteriori*. The truths of mathematics may be known *a priori*, because this science deals solely with the categories of similarity and dissimilarity.

Of the second essay, dealing with the Philosophy of Metaphysics, the present volumes form only the first part. Its special subject is Efficient Cause. According to the general plan, this is to be followed by a second part dealing with the metaphysical concepts involved in the question of the external world, or things-in-themselves, and a third part dealing with the metaphysical concepts in psychology, ethics, and law. As the remaining parts are likely to claim as much space as the first, which contains over two thousand pages, we may possibly have to wait some time for the completion of the work. But students of philosophy will welcome each part that is issued.

Having stated the object of the second essay, and especially that of its first part, in a chapter on Empirical Causes and Meta-empirical Causes, Professor Guastella deals in six chapters with Anthropomorphism, The

Mechanical or Impulsionist Philosophy, Origin and Development of the Idea of Efficient Cause, the Doctrine of the Unknowable and the Idea of Efficient Cause, the *a priori* Philosophy, and Dialectical Realism. There is a supplement of over three hundred pages on the Immanence of the Platonic Ideas, and another on the Pythagoreanism of Plato and his disciples, Xenocrates and Speusippus, and a deeply interesting appendix of over two hundred pages on the theme "Nihil oritur, nihil interit."

Under the caption of Anthropomorphism, the author discusses Theological Philosophy, Animism as an Explanation of Biological Phenomena, Hylozoism, Panpsychism, Idealism, and the Concept of Causality suggested by Anthropomorphism. The distinction between what Professor Guastella calls panpsychism and idealism, on the one hand, and hylozoism, on the other, may be useful, even though there is a certain inevitable artificiality in the groupings of philosophical systems that result from the adoption of such a principle of classification. Each of the numerous systems examined is shown to rest upon anthropomorphism. This is regarded by the author as sufficient to discredit it. Nor can there be any doubt that the tendency to assimilate the less known to the better known, the phenomena of nature to those of the human mind, has been a fruitful source of palpable errors. It has peopled the heavens and the earth with beings that never had any objective existence, and has established important moral relations between these unsubstantial creatures made in the image of man and their living creators. It has made of abstract thoughts objective realities, and fancied that it found in them the explanation of the sensible universe.

But when this has been freely granted, the question still arises whether the tendency which led the immature mind too far afield, beyond the bounds of reality, may not, after all, have impelled it in the right direction. Is the assumption of a similarity between the world without and the world within really nothing but a sophism? Does not the conception of man as a microcosm, presenting in his own constitution and development an index, as it were, of nature's elements and forces, rest upon the data of empirical science? Is there a more vital part of the doctrine of evolution than the affirmation of man's kinship with other types in the ascending scale of existence? It does not seem necessary to abandon the fundamental positions of Professor Guastella's philosophy in order frankly to recognize in the assimilation of the processes of external nature to those of the human mind something more than an idle play of sophistry, namely, a sense of the unity underlying all the multitudinous phenomena. How far the world in reality is anthropomorphic is a fair question. Is will, will, or thought, thought, only when raised to its highest known potency, in man? What are things-in-themselves? To this last question the author will address himself in the second part of this essay. It will be interesting to see how well he can steer his course between some form of the materialism he rejects and some form of the panpsychism he likewise discards.

Professor Guastella recognizes no efficient cause except the antecedent in an invariable sequence, and accounts for the origin and growth of the meta-empirical conception of an efficient cause by a tendency on man's part to find in his own voluntary and mechanical action an explanation of this natural sequence. In reality, he observes, human volition is a rare and exceptional phenomenon, which plays a scarcely perceptible part in nature's economy. There is no doubt about the existence of such a tendency, and the warning against allowing it to obscure our vision is legitimate. But the reader misses a statement of the exact relation between what is will in man and what seems will in nature outside him. Does human volition fall within a larger category, or is man's genetic connection to be ignored? In the pitiable state of our knowledge concerning any other part of the universe than our own little planet, are we prepared to affirm that volition, even of the kind displayed by man, is such a *quantité négligeable* in the sum of things?

A convinced opponent of all scepticism and agnosticism, the author sees in the quest for the ultimate reality of things only another form of the resort to a meta-empirical efficient cause, and in Spencer's idea of the Unknowable essentially the same demand for a causation not warranted by scientific observation. It may be questioned whether the estimate is just in either case. One may be forced by what seem valid considerations to the conclusion that things are not in themselves what they appear to our senses, without the slightest inclination to introduce supra-mundane causes. It is also possible to recognize no other efficient cause than the antecedent in an invariable sequence, and yet to acknowledge certain inevitable limitations of our knowledge. While dogmatism is, of course, out of place, and it is as presumptuous to affirm that man will never know as to declare that he will know what at present eludes the grasp of his mind, there does not seem to be any means of determining how far the vast realms which to-day extend beyond the reach of his inquiring intellect may be known to him in coming ages, or whether to the end of his existence on earth he shall continue to be baffled by problems he cannot solve and aspects of reality he may not know.

Is the *a priori* method inadmissible in dealing with the phenomenal world? Professor Guastella bars it out; and there is much force in his contention that, influenced by the imposing certainty of mathematical reasoning, philosophers have sometimes raised a false and inapplicable standard, and unconsciously have substituted for the real world a world of their own creation. The inductive method has been the great instrument by which our age has gained its peculiar estimate of nature, and by which its validity must always be tested. But it seems to the reviewer that its significance is exaggerated, when the deductive method is declared to be wholly out of place in the natural sciences. The two methods supplement each other. By induction the hypothesis is suggested, the law is found; by deduction from the law, facts are surmised, predictions are made.

When the discovery of a new planet at a certain distance from the sun, a new chemical element of a certain specific gravity, or the skeleton of a four-toed horse among the fossil inclusions of a certain geological stratum, is predicted, it is a brilliant deduction from a law whose validity is assumed. When the prophecy is fulfilled, the confidence in the law's validity is enhanced by the possibility of such a *priori* statement of fact.

The most common form of a *priori* reasoning is seen in the deductions constantly made from the assumed uniformity of nature. This grandest of all affirmations is entirely out of proportion to our limited individual experience, or even all recorded human experience. It was suggested by experience, but no human experience could be sufficient to prove it. Nevertheless, it approves itself to our minds, because it permits us to predict how nature will behave. There was, after all, a soul of truth in rationalism that must not be allowed to perish. No departure from the realm of experience is, indeed, implied in the double process of inferring general laws from facts observed and then deducing from these laws new facts. For the apprehension by our reason of a rational order is a part of our experience, and the deduction does not become absolutely convincing until the fact foreseen is actually discovered.

Professor Guastella's treatment of dialectical realism is vigorous and elucidating. Of great interest is the conclusion of his supplement on the immanence of the Platonic ideas. Plato complained that none of his disciples understood his teaching as to the ideas. The following reason is assigned for Aristotle's uncertainty. He realized that the Platonic ideas could only be conceived as separate from things, and that consequently Plato's hypothesis of their immanence was a logical impossibility and a contradiction; but he was also impressed by the strong efforts of his teacher to give a place to the ideas in the things themselves by identifying the former with the attributes of the latter. He remained in doubt, because the degree of psychological reflection necessary to solve the difficulty was not possible to attain, even by an Aristotle, in an age when the human spirit was just beginning seriously to contemplate its own activities and nature.

Professor Guastella is a clear and forceful thinker, and the lucidity and strength of his manner of writing reflect these characteristics of his thought. The meaning is never obscure; the style, though inclined to breadth, is never verbose or repetitious; the language is invariably apt, dignified, and graceful. It is with profound interest we look forward to the remaining parts of this work.

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Descartes: His Life and Times. By ELIZABETH S. HALDANE New York, E. P. Dutton & Company, 1905. — pp. xix, 398.

The issue by the French Academy of the monumental edition of Descartes's works, which is now on the point of completion, lends additional interest to Miss Haldane's *Life* of the philosopher. Up to this time the

only accounts in English that contain anything more than a mere outline of Descartes's life and activity have been the volume in "Blackwood's Philosophical Classics" by Professor Mahaffy, and the translation of Kuno Fischer's *Descartes: His Life and Doctrine*. The English form of the latter's work seems to have been unknown to Miss Haldane, as also Professor Torrey's volume of selections with introductory chapters in Sneath's "Series of Modern Philosophers" (1892). But even when everything hitherto existing is reckoned in, it is obvious that there was a very real need of a new and more complete account of Descartes's life and work. Miss Haldane's book seems to me well-proportioned and well-written. The most recent sources of information have been utilized, and the material arranged in clear and orderly fashion. The accounts of the philosophical standpoint and contents of the important works are clear, coherent, and well-suited to the general plan and purpose of the volume, which is intended quite as much for the general reader as for the special student of philosophy. The book is to be welcomed as a real and valuable addition to the literature of philosophy.

J. E. C.

Science and Idealism. By HUGO MÜNSTERBERG. Boston and New York, Houghton, Mifflin, & Company, 1906. — pp. vi, 71.

This little book gives the text of a lecture delivered last winter before the students of Yale University. In it Professor Münsterberg indicates in brief compass his position in regard to certain fundamental philosophical problems, restating in somewhat popular form the theories of the relation of science to experience, and of the classification of the sciences, which are already familiar to readers of the books and articles which he has published during the last few years. The form of this presentation is admirably clear and direct. Moreover, it is throughout dignified and earnest, as becomes an address on serious topics, and does not seek to gain popularity and effectiveness by the adoption of slang or of phrases caught up from the man on the street. In these respects, at least, this little book may serve as a model for philosophical writers of the present day.

In vigorous terms Professor Münsterberg characterizes the current theories of relativity and prescribes the remedy. "We all know the new sophists who to-day call themselves empiriocritics and humanists and pragmatists. With them belong the radical 'empiricists' and the 'relativists' and the 'aristocracists' of Germany and their sympathizers in England and America. . . . Free agents we are, they acknowledge, but free agents which know no standards and absolute values; and, as happens so often in transition periods, our pragmatists are hardly aware of their little virtues, but make a boast of their vices. . . . They feel the Life, but they lack the Reason. They want to teach us, and yet warn us against the belief in truth; they want to convince us, and yet assure us that they have no convictions. By a complete misunderstanding of transcendental philosophy, they are frightened by curious caricatures of idealism. . . . But these attacks, well-known for two thousand years, are dangerous no

longer, as the world knows to-day a completely safe remedy for them : the unprejudiced study of Kant and Fichte " (pp. 26-29). Professor Münsterberg might have added the study of Plato and Aristotle and of Hegel to his prescription. Indeed, how much of the 'originality' of the present day would be happily destroyed by a thorough study of the history of philosophy!

There is undoubtedly a certain dogmatic tone in the author's criticisms, as well as in the statement of his own views. This was perhaps unavoidable on the present occasion. But there is something in the manner as well as in the matter of Professor Münsterberg's writing which reminds one forcibly of Fichte, the master whom he acknowledges. It is not necessary here to give an account of the position of the book. As readers of the REVIEW are aware, the cornerstones of the author's theory are voluntarism and the system of absolute values. What is here set forth is scarcely more than a statement of a standpoint and a summary of results. A new book, however, is soon to be published by the author, and to it we must look for the systematic exposition and support of the views here summarily stated.

J. E. C.

L'attention. (Bibliothèque internationale de psychologie expérimentale.)

Par W. B. PILLSBURY. Paris, Octave Doin, 1906. — pp. 315.

The high standard of excellence set by the previous volumes of this series has been fully maintained in the present instance. The descriptive portions of the text are presented clearly and attractively, and the numerous discussions are for the most part based upon sharply stated issues and conducted with a conservative fairness and a convincing soundness. The volume succeeds in being what its author aimed to make it, a comprehensive and systematic bringing up to date of the results of various researches on attention, and a statement of a theory which tries to ground itself solidly upon the facts. A refreshing feature of the book is that the descriptive analysis is directed largely to the familiar happenings of every day life, and not primarily to the more artificial experiences of the laboratory. These latter facts, however, receive abundant recognition in the sections devoted to theory.

Abandoning the usual classifications of the textbooks, Professor Pillsbury advances at once to an analysis of the results themselves which the process of attention secures. Whether the primary result of this process is to be described as a heightening of intensity or as an increase in clearness, the author declares it impossible to determine absolutely. He himself leans decidedly to the latter view.

After a brief description of the motor phenomena accompanying attention, the author proceeds in the third chapter to prepare the way for his entire subsequent treatment by discussing the conditions of attention. These are divided into two classes, the objective and the subjective. The most important of the former is change of intensity. The subjective conditions are more difficult to discover, but their exposition is particularly illuminating and characteristic. What we shall at any moment select from the

vast array of things to which we might conceivably attend, is determined not only by some actually occurring process of consciousness, — as when, for example, preference for one of two competing visual fields or for a certain portion of a complex field, is given by the presence of some directing image, —but also by more remote though no less influential factors. These latter are such as the general mental attitude of the moment, as determined by one's temporary occupation or interests ; or such as lie much more remote from the present and include the numberless effects of education, of past experience, and of the pressure of social demands ; or, lastly, and still more remotely, such as are purely hereditary, a simple illustration in point being the compulsion under which we are to attend to moving objects. Here, as I have indicated, in the exposition of the conditions of attention, lies the spirit which dominates the entire volume, — the contention that the subject-matter of our attention, whether it be an object of the external world or an image called up by association, is determined in large measure by the past history both of the individual and of the race.

Neither interest nor the feeling of effort are to be made special conditions of attention. The latter is rather an accompanying phenomenon, the former a term that includes several conditions of both the objective and subjective variety. Apperception, in its proper use, refers simply to the fact that any given event in consciousness would have been different had the past history of the individual been other than it actually was.

The various theories of attention are clearly set forth and are criticised, one and all, for having attempted to explain the entire process of attention by means of some one of its partial aspects. The cerebral side of the matter is admirably set forth, and the decision is reached that the findings of both anatomy and pathology point to the frontal lobes as the seat of attention. The view of Exner is upheld, against those of Müller and Wundt respectively, to the effect that the activity of the frontal lobes is one both of reinforcement and of inhibition, and not either of these alone.

In conclusion, the author reaffirms his view that there is but one variety of attention, and that, no matter what its manifestations, it is always to be defined as an increase in the clearness and importance of a mental process, — whatever this process may chance to be, — which becomes for the moment the center of consciousness.

The work of translation seems to have been done excellently, and the only blemish to be noted is the presence of an excess of typographical errors. These are not numerous in the body of the text, but their conspicuousness in the citations of English and German works, both in the footnotes and in the otherwise excellent bibliography, indicates an inexcusable carelessness on the part of the proof-reader. Errors are present in over ten per cent. of the references in each of these places.

A. H. PIERCE.

Über die Willenstätigkeit und das Denken. Von NARZISS AACH. Göttingen, Vanderhoeck & Ruprecht, 1905. — pp. x, 294.

This volume is the outgrowth of experiments which have for the first time, so the author asserts, carried out the program implied in the assertion of Wundt and others that the reaction experiment is mainly of value for the opportunity it affords of carrying on controlled introspection of the movement complex. It is an investigation of reaction times in which numerical results are altogether subordinated to the self-observations and to deductions from observations. Hardly as many experiments were performed as there are pages in the book.

Introspection is justified theoretically on the basis of G. E. Müller's *Perseverationstendenz*. It may be defined as the observation in memory after-image, with a psychological problem in mind, of a process that has already been developed with another problem in view.

The experiments covered the entire range of reaction experiments: simple sensory and motor reactions, the various types of cognition reactions, choice and association reactions, with some added forms in which free choice might be made among prearranged groups of responses or associations, when any one of a class of stimuli was shown. It will be impossible within the limits of this review to mention, even briefly, all the important results. Three may be selected because of current interest.

The much disputed difference between the sensory and motor forms of reaction was found in all subjects without much reference to the mental type of the observer. The difference in the mental attitude that occasions the difference in time is not one of kind so much as of degree. There is never obliviousness of the one process when the other is present, although the consciousness of the one may be due only to the tendency created by a knowledge of the task that has been set. In each case the nature of the conscious preparation is the same, but with difference of emphasis. The consciousness is always of stimulus to be followed by reaction, but the author distinguishes nine stages of relative clearness of stimulus and response. There is never attention first to stimulus and then to movement, as Wundt has claimed, but from the beginning adjustment is always to stimulus with the purpose of responding.

As greater and greater complexity is introduced into the problem, the adaptation changes its character rather in the more or less vaguely ideated awareness of the task than in the conscious elements proper. The time needed for response becomes greater and greater as the expectation of the stimulus becomes less definite and the preparation for response more general. But the essential character of the adaptation does not change. There is always preparation for attention to one of several stimuli with awareness of the task, — viz., to respond with some one of several movements. In no case is it possible to distinguish successive phases of the reaction process, and there is never any possibility of isolating part processes from the total by subtraction.

Dr. Aach devotes much space to a consideration of the actions that seem to be foreshadowed by no conscious processes, and to mental processes that run their course without discoverable imagery. These are found in the awareness of the problem without the slightest representation of the movement to be made, and the appreciation so frequently present that there is something we should recall without an inkling of what it may be. The solution offered is that the physiological adaptation that corresponds to the task has some vague conscious concomitants that constitute what might be translated as a non-ideational consciousness (*unanschauliche Bewusstheit*).

Throughout the entire discussion great stress is laid upon the importance of the task or purpose in controlling thought and action. The latter part of the book, which is devoted more strictly to thought, ascribes to the 'problem' a new function, for concepts and abstraction in general are but embodiments of the purpose, as a dynamic force.

The investigation is very evidently an outgrowth of Külpe's work on the effect of the problem in determining attention, and is closely related to Watt's investigation of the influence of purpose, in the control of association.

While we may occasionally criticise the author for attempting to draw over-sharp distinctions, and for putting new facts in old terms, the work as a whole is one that marks a decided advance, if reaction times are to become instruments for the analysis of consciousness rather than specimens in a museum of mental quantities.

An appendix of forty-five pages gives the results of an elaborate series of tests of the Hipp chronoscope that should stand to the new model as Külpe's to the old.

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The following books also have been received :

Concepts of Philosophy. By ALEXANDER THOMAS ORMOND. New York, The Macmillan Co., 1906. — pp. xxxi, 722. \$4.00.

An Outline of the Idealistic Construction of Experience. By J. B. BAILLIE. London, Macmillan & Co., 1906. — pp. xx, 344.

Memoir of Thomas Hill Green. By R. L. NETTLESHIP. New York and Bombay, Longmans, Green, & Co., 1906. — pp. vii, 256.

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SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de Mét.* = *Revue de Métaphysique*; *Rev. Néo-Sc.* = *Revue Néo-Scholastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia e Scienze Affini*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abtl.*; *Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

LOGIC AND METAPHYSICS.

Über naturwissenschaftliche Hypothesen. EMIL KOCH. *V. f. w. Ph.*, XXX, 2, pp. 133-177.

This article is an examination of those characteristics of scientific hypotheses which are of psychological interest. Hypotheses go beyond the given facts, by assumptions or suppositions which fall short of complete certainty. Wilhelm Ostwald holds that his energism is free from hypotheses and deals only with magnitudes which can be exhibited and measured; he distinguishes between hypotheses proper, which add something not given in the phenomenon, and such abstractions as the frictionless fluids and mass-points of mechanics, which simply leave out part of the phenomenon and take the rest as essential. Wolfgang Ostwald distinguishes between theories, which, though not yet proved, are capable of proof, and hypotheses, which are wholly or in part incapable of proof or deduction from a higher concept. But this view is too simple for the facts. The presence of such higher concepts is in most cases doubtful, and even when present they are of secondary importance. Moreover, the abstractions of mechanics are also hypotheses as soon as they are regarded as 'pictures' of reality. Neither the reduction of the unknown to the known, nor generalization, nor the exhibition of logically necessary connections, is, as such, a satisfactory characterization of hypotheses. As opposed to the facts given in perception, all hypotheses are only represented, or rather capable of representation (*vorstellbar*), predominantly in visual terms. They picture to the eye the quantitative and qualitative details of a given process, and enable us to 'see through' it. The physicist thinks, not of sensations of warm and cold, but of divisions on the scale of his measuring-instrument, and of molecular vibrations which he can clearly picture. Other scientific

hypotheses, such as the kinetic theory of gases and the theories of ions, electrons, mass, force, and the like, make equally great use of visual representations. Where this capability of visual representation is lacking, we have such verbal or paraphrasing hypotheses as those of vital force, the *vis dormitiva* of opium, etc. The visual image may have indifferently any desired localization with reference to the thinker. It may represent a small object, such as a vibrating molecule, on a much larger scale, or a large object, such as a planet, on a much smaller scale. It may be of a very fragmentary and schematic character, especially where the object pictured is a complicated process extending over a considerable period of time. A periodic motion, for example, may be represented by a wave or sine curve, which exhibits all the different stages at once, in spatial instead of temporal terms; or cause and effect may come to be thought of as simultaneous, two 'sides' of a single fact. The relative difficulty of mentally picturing motion led in the early history of the sciences to a preference for explaining phenomena statically. Description brings out the perceptual elements in the object described, while explanation goes beyond what is given in perception. Mach calls explanation merely 'indirect description,' and holds that it must ultimately be reduced to ordinary or 'direct' description, free from added hypothetical elements; but such an extension of the meaning of the term 'description' obliterates the essential distinction between the two processes. Explanation does not, however, give to knowledge a 'higher value'; the 'necessity' of scientific thought seems to depend, not on 'laws' or 'organization,' but on the consciousness of a compulsion (*Zwangsbewusstsein*), due to a definite expectation based on habit, or on a clear and detailed representation of the elements (*e. g.*, molecular movements) involved in the given process. The terms 'theory' and 'hypothesis' are often used as synonymous. Some writers distinguish them by saying that theories deal with relations that actually can, and presumably in due time will be given in experience, whereas hypotheses offer no prospect of such experimental verification; other writers say that theories unify and systematize a wide range of facts, while hypotheses are only preliminary stages in the development of theories, the theory being the end and the hypothesis the means. On the view here presented, a theory is a systematic attempt to represent the facts with quantitative exactness, making the simplest possible qualitative assumptions. Both hypotheses and experienced facts are in a sense subordinate to theory, which uses both with the greatest freedom.

F. D. MITCHELL.

Psychologische Prinzipienfragen. H. CORNELIUS. *Z. f. Psych.*, XLII, 6, pp. 401-413; XLIII, 1 and 2, pp. 18-39.

I. *Psychology and the Theory of Knowledge.* — The charges of Husserl against the writer's epistemological formulation of psychology are nullified when the essential identity of the 'Phänomenologie' of the former and the so-called 'Psychologismus' of the latter is recognized. The reproach of a

biological derivation of the theory of knowledge holds as little against the one as against the other system. The two are in virtual accord in repudiating the claims of a causal psychology, and in demanding a derivation of epistemology from the immediately given of experience. While thus at one in methodological principle, the writers are at variance on certain points. Husserl inconsistently (and unjustifiably, in the opinion of the writer) maintains the impossibility of deriving principles of universal validity from experiential data, an assumption no less damaging to his own than to the writer's system. Again, while nominally adopting the principle of 'Voraussetzungslosigkeit,' according to which all assumptions which cannot be 'phenomenologically' realized are to be repudiated, in practice Husserl deviates widely from this standard. Thirdly, where Husserl would exclude from epistemological research all genetic reference, Cornelius maintains that all fruitful investigations of meanings must include a regression to their data of origin in the immediate. Here, again, Husserl's position is tenable only against a psychology of the causal type, against a causal rather than a genetic analysis. Lastly, since the investigation of the concept of the physical world and of the validity of our judgments upon it lies within the sphere of the theory of knowledge, Husserl's contention that the solution of metaphysical problems lies outside the province of epistemology is unwarranted.

II. *The Material of Phenomenology.* — The material available to the psychologist in elaborating the science of principles consists in the immediately given, the indisputable and presuppositionless, of our psychological life. This material, Husserl and the writer agree, is not to be conceived as a mere manifold of separate and individual experiences. The facts of consciousness which give us cognizance of the coherence of experience, *e. g.*, the 'Gestaltqualitäten' of Ehrenfels, are no less immediately given than the part-processes themselves. On the other hand, sense-experience is not to be confounded with the physical object; neither are the two to be regarded merely as different aspects, subjective and objective, of the same experience. The distinction is that of immediate and mediate, in the opinion of the writer. Husserl, however, introduces a difference in kind, as between experience and the knowledge of experience, describing the former in terms totally foreign to the spirit and method of phenomenology. Thus the statement that in any experience the component parts and abstract moments, however unorganized at the time, are themselves experienced, evidently involves either a doubtful recourse to the concept of the subconscious (*unbemerkt*), or a hopeless confusion of the immediately given with attributes assigned to it by subsequent reflection. Further, knowledge is characterized by Husserl as an 'intentional act' by which experience must be assimilated before it can become 'Bemerken' or 'Wahrnehmen.' Not only would such a doctrine, rigidly applied, reduce knowledge to an infinite regress, but this cleavage of consciousness (already defined as conscious content) into content and act, is itself self-contradictory. Secondly, no

distinctive conscious quality by which intentional experience or act can be differentiated from mere experiences or content is or can be offered. The arbitrary separation of the two is based on a fallacious conception of perception (*Wahrnehmen*) as 'intentional' reference of sensation to an object.

E. MURRAY.

Kant's Antithesis of Dogmatism and Criticism. A. O. LOVEJOY. *Mind*, No. 58, pp. 191-214.

In his *Critique of Pure Reason*, Kant claims to establish criticism as opposed to dogmatism as the only true and possible method of philosophy. He formulates his method in opposition to the rationalistic systems of Leibniz and Wolff. This article purposes to show that neither historically nor critically is Kant's philosophy so revolutionary or important; that there is little absolutely original in his work. He failed to hold clearly in mind the systems of his predecessors, he overlooked the very basis in thought of all metaphysical reasoning, and never recognized that his most important teaching regarding causality was in fact borrowed from the 'dogmatism' of Wolff. The weakness of the rationalists he finds in their supposed passion to find for every conditioned an unconditioned, and so complete the unity of knowledge. But history shows us rather a passion, not for completeness in the conception of the world of experience and its conditions, but for consistency and coherence in that conception. Philosophical advance has followed a method founded on the principle of contradiction and its corollaries. Leibniz, Wolff, and Baumgarten were most explicit regarding the criterion of a *priori* knowledge, viz., the compossibility of concepts. It is true that Leibniz made all judgments in a sense analytical, but he yet recognized the same distinction as Kant between analytic and synthetic judgments. In an *a priori* judgment, the subject would be inconceivable without its predicate; in a *posteriori* reasoning, the inclusion of the predicate is purely accidental. The *a priori* judgments Leibniz called identical, but identical judgments were not merely tautological. There are those whose opposite can be seen to involve contradiction by an explanation of the whole implicit connotation of the terms involved, showing that the two notions are 'impossible.' It is these which constitute the substance of our demonstrative knowledge, and especially of metaphysics. One blunder in Leibniz we must still acknowledge: since demonstration consists only in definition, *i. e.*, analysis, there is no possibility of demonstrating synthetic truths; we can find no really instructive logical relations. So Leibniz destroyed the possibility of constructive metaphysics, though he intended no such result. He in fact left the problem to Wolff and Baumgarten, who did indeed make a preliminary investigation of the power of thought before attempting to found a metaphysics. Still Kant charges his predecessors with dogmatism. Interest centers about the principle of contradiction, yet Kant himself certainly recognized it as an absolute criterion of the nature of reality. ‡ Did he accept the prin-

ciple only in a restricted sense? He is not clear; he writes as if he had read nothing in German philosophy since Leibniz, and only a part of Leibniz. If Kant had grasped the Wolffian distinction of a *priori* judgments *per essentialia* and a *priori* judgments *per attributa*, we cannot see why he might not have accepted the Wolffian method. He finds the stronghold for his antithesis of dogmatism and criticism in the *reine Anschauung*; but this is a logical chimera, and, even if true, is not essential to the proof of the logical validity of synthetical judgments *a priori*. He limits knowledge to objects of possible experience, but does not so distinguish dogmatism and criticism, while his position that no reality can possess the formal character of *Undenklichkeit*, is the same as that of Leibniz and Wolff.

MARGARET K. STRONG.

Les premiers mots de la thèse idéaliste. A. BINET. Rev. Ph., XXXI, 6, pp. 599-618.

This article, as its title suggests, is a criticism *in limine* of the idealistic theory. Throughout the discussion, the author has in mind Strong's book, *Why the Mind Has a Body*, which he considers a very clear and logical expression of the idealistic system. In considering Strong's physiological argument, Binet agrees with him in his strictly scientific discussion of the problem; for there he is, the author asserts, on the solid ground of experience. But when Strong, arguing from the philosophical validity of the facts of optics, holds that the object of which I am immediately conscious cannot be the object which acts on my senses and calls forth the perceptual brain-event, but can at most be a mental duplicate of that object, Binet parts company with him, and perceives in the last part of such an assertion a fatal error. For, he maintains, the fact that the cerebral state does not resemble the perception does not prove that the perception is mental rather than physical. Likewise, Strong is guilty of error in his metaphysical argument; there he allows himself to be misled by his metaphorical terms, which, if thought out in detail, lead to naïve realism. By his criticism Binet believes that he has destroyed the point of departure of the idealistic theory.

G. W. CUNNINGHAM.

La commodité scientifique et ses conséquences. J. SAGERET. Rev. Ph., XXXI, 7, pp. 32-52.

In his works, *La science et l'hypothèse* and *La valeur de la science*, Poincaré has introduced the term *commodité* into the expression of scientific principles. The present article is an attempt to justify such a procedure, and to show how it makes more precise the idea of science held by Auguste Comte and the Positivists. By an examination of the Euclidian geometry, and by a comparison of it with the theories of Riemann and Lobachewsky, the author concludes that the former is relative and depends upon our relation to the external world; change either the sense of man or the universe in which he finds himself, and the geometry of Euclid will also change.

Likewise the revolution of the earth is forced upon us only by our present mental environment ; to affirm that the earth does not revolve is simply to close one's eyes to the inheritance of the human race. There is no absolute necessity ; and so Poincaré's notion, which means only necessary and progressive adaptation, is a happy one for science and for philosophy as well. It also demands a separation between mathematics and the other sciences, as is evident in an extended survey of the so-called mathematical laws ; for these are not attained by approximation as are the laws of the other sciences which never reach definitive perfection. Further, this separation is justified by the nature of the case, for mathematics is a means and not an end for knowledge. Thus, in the author's opinion, Poincaré has completed the good work begun by Auguste Comte, the attempt to express the idea of science in a definitive manner.

G. W. CUNNINGHAM.

The New Realism and the Old Idealism. J. S. MACKENZIE. Mind, No. 59, pp. 308-329.

Two formidable antagonists to British Idealism have recently arisen, Pragmatism and Realism. The former emphasizes the volitional aspect of consciousness and make the world a subjective construction. For the latter, the world is a datum, though not in the crude sense of early Greek philosophy, or of the more refined common sense theories. G. E. Moore, a representative leader of the realistic movement, argues against Idealism : (1) that it cannot be proved apart from the doctrine that '*esse is percipi*' ; and (2) that it is paradoxical in relation to concrete experience. (1) On the contrary, the principle that '*esse is percipi*' is refuted as much by Idealism as by Realism, though in a different way. Realism maintains a sharp distinction between things and our consciousness of them, and affirms of the world of meaning a reality distinct from the world of direct experience. Thus, every object in consciousness, whether a material thing, a feeling, or a universal, has independent reality. It is true that many idealists have over-emphasized the subjective aspect of their philosophy, but still reality for the idealist is not the merely perceived. It is the concrete whole ; the part has a partial reality in virtue of its place within the whole. The world of meaning is thus constantly interpreted in relation to the world of psychical fact, and not as opposed to it. Realism creates a dualism by holding the two worlds apart. Idealism offers the only proof possible for a philosophical theory — that of making the universe intrinsically intelligible. (2) The idealist denies that his theory involves the paradox of reducing concrete experience to illusion. The world of meaning essentially goes beyond the world of fact. To show that things are more than they seem is as characteristic of every day knowledge as of speculative notions. Interpretation is not denial of reality.

M. W. SPRAGUE.

Pragmatism and Pseudo-Pragmatism. F. C. S. SCHILLER. *Mind*, No. 59, pp. 375-391.

In answer to the charge made by the author that A. E. Taylor had inconsistently embodied pragmatic conceptions in his system of absolutism, the latter made rejoinder that the alleged indebtedness to pragmatism was due to misinterpretation. But Taylor's explanation of the points at issue removed the doubt as to his intention, not as to the logical justification of his employment of certain concepts. The main points in which Taylor fails to be a consistent absolutist are as follows: He employs the categories of purpose and teleology; he recognizes 'instinctive' demands of the intellect; he admits postulates, not axioms, as basal to science (excepting metaphysics and arithmetic); he sometimes regards thought as an intermediary function, and objects to studying the knowing faculty apart from the content of knowledge; he maintains an empiricist criterion of ultimate truth in addition to his rationalistic criterion. Moreover, he fails to understand the meaning of the pragmatic test of truth, assuming that two practically equivalent assertions are regarded as meaningless, whereas they are regarded simply as meaning the same. He misunderstands 'practice,' which is not independent of 'theory' for the pragmatist. Both are relative to thought-purposiveness. He furnishes certain illustrations of 'useless' knowledge (from the fields of mathematics and metaphysics), and challenges a pragmatic interpretation, which is successfully forthcoming. Taylor evinces another misunderstanding in his false distinction between psychological effects and logical consequences. The former include the latter, which are differentiated by purposive selection. The logical is a *valuable* psychological product.

M. W. SPRAGUE.

The Experimental Theory of Knowledge. JOHN DEWEY. *Mind*, No. 59, pp. 293-308.

Like anything else, a cognition must have characteristic describable features. Analysis of a typical case leads the author to definition. Take the case of an odor which leads to the plucking and enjoyment of a rose. Every event in the series is in consciousness. But if the odor is mere odor, unaccompanied by anticipation of its fulfillment, the experience is merely serial and no cognitive element enters. This denies the truth of identifying presence in consciousness with knowledge, and affirms the separation of being from knowing. But, with the completion of the series, the smell is transformed. It has the retrospective aspect of having excited activity and produced gratification. It has gained meaning, but this is not yet knowledge. This point is fundamental. Knowledge is essentially not the experience of fulfillment, but the experience of intentions of fulfillment. Suppose the same odor is experienced later. It now means an activity culminating in a rose. The experience is cognitional. Generalizing, we arrive at the following definition: An experience is a knowledge, if in its

quale there is an experienced distinction and connection of two elements of the following sort. One means or intends the presence of the other in the same fashion in which itself is already present, while the other is that which, while not present in the same fashion, must become so present if the meaning or intention of its companion or yoke-fellow is to be fulfilled through an operation it sets up. Two types of knowledge are involved here: knowledge as anticipatory meaning and knowledge as assurance. The latter is the former successfully realized. The odor, as meaning rose, is fulfilled in the real rose. The odor, however, may turn out not to mean rose, but something else. Here is the starting point of science. Refuted meanings demand criticism. The fulfillment or non-fulfillment of intended meaning becomes in deliberate scientific reflection the instrument of criticism and evaluation. The success of conscious endeavor depends on the character of the meanings employed; hence the impartial scientific evaluation of meanings is of dominating importance. Truth is the experienced relation between intended meaning and realization of the meaning through its own natural operation. This relationship is central for will and endeavor. The absolutist theory hypostatizes this abstraction into real being, and destroys the truth of concrete things.

M. W. SPRAGUE.

Realism and Pragmatism. B. H. BODE. J. of Ph., Psy., and Sci. Meth., III, 15, pp. 393-401.

The distinction usually drawn between sensation and thought, 'acquaintance-with' and 'knowledge-about,' is that in the former the object of awareness is supposed to be a modification of the conscious state, while in the latter it is not. Among contemporary realists, the contention is whether these are distinct and irreducible forms of knowing, or whether all knowing can be reduced to the type of 'knowledge-about.' In any of these forms, however, realism fails to make out a case; and pragmatism then offers its services as mediator. Pragmatism finds the element of truth in the realism of Hobhouse to be its recognition of an element or factor in experience other than representative knowing; and in that of Woodbridge and Montague to be the doctrine that consciousness is not substantive or adjectival but relational. Pragmatism attempts this mediator by holding that physical world and experiencing individual are terms of purely functional import. But its endeavor to derive both sense and thought from a more fundamental category, though suggestive, is no more successful than the attempts already noted to reduce all 'acquaintance-with' to the category of 'knowledge-about.' The contention of the present paper is that, though the view of knowing as two-fold in form is not necessarily final, it is more adequate than those which have been offered as substitutes.

MATTIE ALEXANDER MARTIN.

Les objections au monisme. FÉLIX LE DANTEC. Rev. Ph., XXXI, 8, pp. 113-135; XXXI, 9, pp. 260-282.

It is not ordinarily for scientific reasons that one opposes monism. One follows the logic of feeling. The thesis of present day monism is this: Nothing of which man is conscious takes place without a change in something that is susceptible of measure. The aim of monism is to succeed in measuring those modifications which no one can to-day measure. The thesis of the dualists is this: The human machine functions according to the laws of physics, chemistry, and physiology; but it is directed by the soul, which acts arbitrarily. If a machine analogous to the phonograph, a 'phrenograph,' had been invented, the record of mental states and processes could be made. Even if this machine were invented, no one, it is true, would be able to know the mental states of the person observed any more than the physicist, who sees the sinuous line on the wax cylinder of the phonograph, hears the piece of music traced by that line. It is the reversibility of the phonograph which proves the relation between the sinuous line and the musical air. The piece of music is a vibratory movement measured directly by the human ear and the sinuous line on the record is that movement measured indirectly by means of the registering cylinder. Sound is an epiphenomenon of the vibratory movements of the air which are called sonorous. If the hypothetical phrenograph could record the movements which accompany thought in the human brain, one would be justified in considering consciousness an epiphenomenon connected with the measurable phenomena which the machine had registered, just as sound is an epiphenomenon for a deaf man who is dealing with acoustics. The most serious objection to monism grows out of the verdict it gives regarding free will. Monism is rejected on account of its logical consequences. Monism holds that psychologists study, only with a different method, phenomena of the same order as those which physiologists study. The translation into the language of physiology of facts of the psychic order is not only valuable, but indispensable. It is because a man knows only subjectively his cerebral changes and ignores the oxygen, food, etc., which make for the determination of his acts that he believes that he acts by himself alone. Men are thus like puppets having wheels concealed within which are moved by strings visible without. The wheels represent the peculiarities of the cerebral structures and the strings represent exterior agents (oxygen, food, temperature, etc.). The conscious puppet knows the wheels, but is ignorant of the strings; he thinks himself free. The outside observer, on the contrary, sees the strings and not the wheels. The biologist-monist aims to take into account the wheels and the strings. Monism rests unassailable behind the precise definition. Nothing takes place of which man is conscious without a change in something susceptible of measure.

FRANK B. CRANDALL.

Space and Reality. JOHN E. BOODIN. J. of Ph., Psy., and Sci. Meth., III, 20, pp. 533-539; 22, pp. 589-599.

The first part of this discussion falls under the caption of Ideal or Serial Space. The *a priori* of Kant has, since Spencer, been translated into biological terms, though Spencer failed to see that we inherit tendencies, not axioms. The content of our space perception, in so far as it exists, is probably concomitant with the going on of the growth process, determined by the phylogenetic tendencies and intra- and extra-organic stimuli. What actual content there is must be determined by statistical inquiry and not *a priori*. Geometrical construction is found to be a matter of logic and to be conducted as any free logical inquiry; but the ideals of mathematics, as other ideals, seem to have a phylogenetic basis. The conception of space as perspective is valid, if regarded as phenomenal; but, when translated into terms of absolute idealism, space loses its significance. The second part of this discussion is devoted to Real Space. The space zero is a real nothing which conditions not only subjective construction, but real action as well. This conception saves us from the absurdity of regarding space both as serial and as real, as our construction and as conditioning the world of processes. It admits the conclusions of idealism so far as they go; but, at the same time, it does justice to the surd which realism has always felt to remain. In explaining motion, empty space makes it possible to abstract from bodies and resistance. It also gives us the possibility of objective distance, which cannot be reduced to a property of things, and yet conditions the actions of things. Most important of all, this conception of space satisfies the criterion, that those conditions which limit and must be taken account of in the realization of purpose, must themselves be real.

MATTIE ALEXANDER MARTIN.

Nécessité de la métaphysique. V. ERMONI. Rev. Néo-Sc., XIII, 3, pp. 229-245.

Metaphysics is not dead, but is the vital principle of all philosophy. By a strange fatality, Kant, with a mind strongly metaphysical, dealt the most terrible blow to metaphysics by declaring its object unknowable. This gap he attempted to fill by an appeal to practical reason; but his successors have shown such an appeal unwarranted, and have expelled metaphysics from this asylum. Positivism rejects metaphysics as incompatible with its method, while phenomenalism, in the suppression of the noumenon, the Absolute, suppresses also true metaphysics. Two considerations, however, go to prove the necessity of metaphysics. Metaphysics plays a normative rôle, because it systematizes and coördinates all our knowledge. It is also explicative. It seeks in the invisible the *raison d'être* of the visible, in the insensible that of the sensible, in the spiritual that of the material, in the transcendent that of the empirical. Positivism declares that human knowledge is limited to facts established by experience. But in establishing this theory of knowledge, one leaves the field of facts to enter that of

principles and ideas. Positivism is a partisan of universal determinism ; the latter holds that all phenomena are necessarily bound one to another, that they unfold inevitably, that the consequent has its reason for being in the antecedent. But has one established this relation empirically ? In the effort to explain, there has been recourse to this hidden bond, which is a metaphysical element. Agnosticism, positivism under a different name, claims that the Absolute is unknowable ; but this, its fundamental dogma, is a metaphysical principle. All these tendencies are, at bottom, metaphysical tendencies ; all these efforts converge towards the metaphysical solution. In conclusion, metaphysics is necessary to philosophical disciplines ; philosophy can no more live without metaphysics than the human body without respiration.

MATTIE ALEXANDER MARTIN.

PSYCHOLOGY.

Qu'est-ce qu'une passion ? TH. RIBOT. Rev. Ph., XXXI, 5, pp. 472-498.

The origin of passion is internal and external, but the influence of the external as a cause is inversely proportional to the internal tendency. Passion, in the final analysis, is largely a matter of physiological constitution. The sign of a surcharge of energy, it may be directed to a goal accidentally provided. It differs from emotion in being a more complex process, prolonged and dominated by an idea or image. The affective elements of the ruling idea predominate in real passion. Yet an intrinsically logical process is present, an affective judgment of value. But reason, here, is at the service of passion. In passion of a violent type, reason is reduced to a minimum, and the passion only differs from instinct in complexity and clear consciousness of end. But to reason passion owes its stability. Movement is an integral part of passion as it is of emotion, and by its degree of movement passion may be classified as dynamic, associated with the free or artistic type of imagination, and static, found with the scientific imagination. Passion, viewed synthetically, is a solid bundle of coöperating forces at whose center is a tendency violently struggling toward a fixed aim ; dragging in its train perceptions, images, and ideas ; and sustained by a rational logic.

C. WEST.

L'intellectualisme et la théorie physiologique des émotions. M. MAUXION. Rev. Ph., XXXI, 5, pp. 498-519.

Mauxion discusses the significance of the intellectual, as compared with the physiological, theory of emotion. The former refers emotion to a central, the latter to a peripheral origin. The intellectual theory finds a representational element in all sensation. Indeed, the result of atomic activity is conceived as movement, on the one hand, and mental representation, on the other. The cell is a system of molecules, whose movements find subjective expression in a synthesis of representations carrying the affective qualities of pleasant and unpleasant : pleasant, when the representations are in harmony ; unpleasant, when in opposition — that is, according to

the reciprocal reinforcement or arrest of molecular movement. The human brain is but a complex system of cells. In an emotion there are two parts: First, the form of the emotion, constituted objectively by certain physiological phenomena and subjectively by accompanying agreeable or disagreeable sensations; and, second, the other and more basal feeling of pleasant or unpleasant, a result of relations between representations and an integral part of the emotion. The first is emphasized by the physiological school to the neglect of the last. Alcoholic intoxication may give rise to such a formal emotion as the first, without the second, where the excitations are not directed towards the centers of reflection. But the physiologists are right in observing that the emotion could not exist without these physiological phenomena; and the facts of voluntary and vasomotor innervation are anything but simple manifestations. The physiological theory is compatible with the intellectual, since the representations and their correlative movements can be considered as the expression of an activity at once psychical and physical.

C. WEST.

Reasons for the Slight Esthetic Value of the 'Lower Senses.' W. B. PITKIN. *Psych. Rev.*, XIII, 6, pp. 363-377.

The aim of the article is to furnish a critical review of the various explanations that have been put forward to account for the small esthetic value of the lower senses, and then, in the light of these explanations, to formulate a theory which will include their truth and exclude their error. The theories examined are in the main those of Volkelt, Marshall, Santayana, Ribot, and Guyau. The conclusion reached by Pitkin is suggested by the Galton tests in after-imagery. The strongest imagery (both after-imagery and secondary revival) is in general confined to visual, auditory, and kinesthetic qualities. Consistent with this fact is the further fact that music, painting, sculpture, and their variants form the chief realm of art and appreciation. In the 'lower' senses we find a much more rapid 'dampening' of the after-images, and the persistence of such after-images without qualitative variation is much briefer than is the case with visual, auditory, and kinesthetic images. So that from the standpoint of the psychology of judgment, because of the non-parallel variation of sensation-quality and feeling-tone (including both of these in the persistence of 'content'), the latter loses its relation to the former, in such degree that quality and tone become as it were sundered experiences, neither being a mere predicate of the other. It is further noted that, in the case of the higher sensations, there is a larger mass of imagery elements in the background, which is more stable and homogeneous than the background of lower sensations. This fact facilitates esthetic judgment in the sphere of the higher sensations and makes it difficult in case of the lower. If either sensation-quality or feeling-tone 'dampens' or changes too rapidly, attention and judgment become difficult, and where the rates of variation of these two widely differ, judgment concerning an affectively toned sensation becomes uncertain or impossible.

W. A. H.

NOTES.

The University of Berlin, in celebrating the centenary of its foundation, will hold services in commemoration of Fichte, who contributed greatly toward its establishment, and was its first rector. It is proposed to erect a monument in acknowledgment of the great debt which the German nation owes to him, and a committee, composed of the Chancellor of the Empire, the Ministers of Public Instruction and of War, the Rector of the University, and other prominent public officials, has been appointed to arrange for this fitting memorial. Communications and subscriptions should be addressed to Akademische Auskunftstelle an der königlichen Universität, Berlin, C. 2, Platz am Opernhaus.

The University of Edinburgh not long since celebrated the fiftieth anniversary of the induction into the chair of Logic and Metaphysics of Professor A. Campbell Fraser. Professor Fraser, who is now eighty-eight years of age, was presented with congratulatory addresses from the Senatus and from the honors graduates in philosophy and former members of his honors class. In reply, Professor Fraser gave some interesting reminiscences of his long career as professor of philosophy. Seven of Professor Fraser's pupils have held chairs of philosophy in Scottish universities, while in Oxford and Cambridge the chairs of Green and Sidgwick have been filled by men of his training. Nine of his students have become professors in the universities of other parts of the English speaking world. A large number of theologians, too, received their philosophical training in his classes.

We have received the first number of *Rivista Rosminiana*, an Italian philosophical periodical dedicated to the propagation and diffusion of Christian idealism. It is edited by Professor Giuseppe Morando, of Lodi.

We have received also the prospectus of the first number of *Revue des Sciences Philosophiques et Theologiques*. It is to be a quarterly periodical, each number consisting of about two hundred pages, and is intended to cover the entire field of Philosophy and Theology, including Logic, Metaphysics, Ethics, Æsthetics, Psychology, Speculative and Biblical Theology, Theological Methodology, the History of Philosophy and of Dogma, and the Philosophy of Religion.

The death of Senatore Carlo Cantoni deprives *Rivista Filosofica* of its editor. For the time being the editorial work has been undertaken by Professor Juvalta.

Professor Kuno Fischer has resigned the chair of philosophy at Heidelberg which he long made famous by his great reputation as a scholar and as a brilliant lecturer.

Mr. John Carleton has given \$50,000 to Queens University, Kingston, to endow a chair of moral philosophy.

The second meeting of the Southern Society for Philosophy and Psychology was held in Montgomery, Ala., December 27-29.

The Rev. Charles Edward Hart, D.D., Theodore Frelinghuysen Professor of Ethics and Evidences of Christianity in Rutgers College, after twenty-six years of service, has resigned his professorship and has been made Professor Emeritus of Ethics.

We give below a list of the articles, etc., in the current philosophical periodicals:

MIND, No. 60: *F. H. Bradley*, On Floating Ideas and the Imaginary; *G. Vailati*, A Study of Platonic Terminology; *H. Foston*, The Constitution of Thought; *Hugh MacColl*, Symbolic Reasoning; *J. A. Stewart*, Plato's Doctrine of Ideas; *B. Russell*, The Nature of Truth; Critical Notices; New Books; Philosophical Periodicals; Notes and Correspondence.

INTERNATIONAL JOURNAL OF ETHICS, XVII, 1: *W. R. Sorley*, Ethical Aspects of Economics, I; *Frederic Harrison*, Positivists and Dr. Coit; *John A. Hobson*, The Ethics of Internationalism; *David S. Muzzey*, Mediæval Morals; *Frank T. Carlton*, Humanitarianism, Past and Present; *Michael Macmillan*, Bacon's Moral Teaching; *Ira W. Howerth*, War and Social Economy; *W. E. Lishman*, Reflections on Kidd's "Principles of Western Civilization"; *Junjiro Takakusu*, The Social and Ethical Value of the Family System in Japan; Book Reviews.

THE HIBBERT JOURNAL, V, 1: *Editor*, Church and World; *Sir Oliver Lodge*, Union and Breadth; *Dugald Macfadyen*, Reunion; *D. Ffrangcon-Davies*, Christ in Education; *J. H. Muirhead*, The Bishop of Birmingham and the Education Bill; *William T. Seeger*, The Vital Value in the Hindu God-Idea; *John Masson*, Pierre Gassendi and the Atoms; *Henry Sturt*, Do We Need a Substitute for Christianity? *J. Arthur Hill*, Psychical Research as Bearing on Veracity in Religious Thought; *John Gerard*, A Dialogue on Eternal Punishment; *Canon Kennett*, Jesus the Prophet; *A. Smythe Palmer*, The Zoroastrian Messiah; *James Collier*, Phases of Religious Reconstruction in France and Germany: Discussions; Reviews; Bibliography of Recent Literature.

THE MONIST, XVI, 4: *Giovanni Vailati*, Pragmatism and Mathematical Logic; *Charles S. Peirce*, Prolegomena to an Apology for Pragmatism; *Stephen S. Colvin*, Pragmatism, Old and New; *Richard H. Geoghegan*, Some Notes on the Ideograms of the Chinese and Central American Calendars; *W. S. Andrews*, The Franklin Squares; Criticisms and Discussions; Book Reviews and Notes.

THE PSYCHOLOGICAL REVIEW, XIII, 6: *W. B. Pitkin*, Reasons for the Slight Esthetic Value of the 'Lower' Senses; *A. Wyczolkowska*, A Study of Certain Phenomena Concerning the Limit of Beats; *J. Mark Baldwin*, Introduction to Experimental Logic; *S. S. Colvin*, Certain Characteristics of Experience; *Percy Hughes*, Categories of the Self; Editor's Note.

THE PSYCHOLOGICAL BULLETIN, III, 10; *H. Heath Bawden*, Methodological Implications of the Mind and Body Controversy; Psychological Literature; Books Received; Notes and News.

III, 11: *M. V. O'Shea*, Tendencies in Child and Educational Psychology; Psychological Literature; Books Received; Notes and News.

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS, III, 21: *Shepherd I. Franz*, Psychological Opportunity in Psychiatry; *Felix Arnold*, The Given Situation in Attention; *A. H. Pierce*, Emotional Expression and the Doctrine of Mutations; *Willard C. Gore*, The Mad Absolute of a Pluralist; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

III, 22: *John E. Boodin*, Space and Reality: II, Real Space; *John E. Russell*, The Pragmatist's Meaning of Truth; *George L. Jackson*, The Telephone and Attention Waves; *Kate Gordon*, Metaphysics, Science or Art; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

III, 23: *Ralph Barton Perry*, The Knowledge of Past Events; *A. H. Pierce*, Should We Still Retain the Expression 'Unconscious Cerebration' to Designate Certain Processes Connected with Mental Life? Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

III, 24: *Walter B. Pitkin*, A Problem of Evidence in Radical Empiricism; *J. H. Farley*, Unity and the World Ground; *William James*, The Mad Absolute; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

III, 25: *Frances Hall Rousmaniere*, A Definition of Experimentation; *Frederic Lyman Wells*, Linguistic Ability and Intellectual Efficiency; Reviews and Abstracts of Literature; Notes and News; Journals and New Books.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XVII, 4: *Arnold L. Gesell*, Jealousy; *E. A. Hayden*, Memory for Lifted Weights; *John F. Shepard*, Organic Changes and Feelings; Psychological Literature; Index to Vol. XVII.

ZEITSCHRIFT FÜR PSYCHOLOGIE, XLIII, 1 u. 2: *G. Heymans*, Weitere Daten über Depersonalisation und "Fausse Reconnaissance"; *H. Cornelius*, Psychologische Prinzipienfragen: II. Das Material der Phänomenologie; *Siegfried Jacobsohn*, Über subjective Mitten verschiedener Farben auf Grund ihres Kohärenzgrades; Literaturbericht.

XLIII, 3: *Ernst v. Aster*, Beiträge zur Psychologie der Raumwahrnehmung; *Siegfried Jacobsohn*, Über subjective Mitten verschiedener Farben auf Grund ihres Kohärenzgrades (Schluss); Literaturbericht.

XLIII, 4: *Th. Ziehen*, Erkenntnistheoretische Auseinandersetzungen; *Hans Abels*, Über Nachempfindungen im Gebiete des kinästhetischen und statischen Sinnes; Besprechung; Literaturbericht.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, XIII, 1 : *Karl Joël*, Die Auffassung der kynischen Sokratik, I ; *Otto Gilbert*, Der *δαίμων* des Parmenides ; *Heinrich Maier*, Zur Syllogistik des Aristoteles ; *Branislav Petrovievics*, Zenos Beweise gegen die Bewegung ; *J. Eberz*, Die Einkleidung des platonischen Parmenides ; *Ludwig Kunz*, Die Erkenntnistheorie d' Alemberts ; Jahresbericht.

KANTSTUDIEN, XI, 3 u. 4 : *Walter Frost*, Kants Teleologie ; *A. Tumarkin*, Zur transcendentalen Methode der Kantischen Ästhetik ; *R. Eucken*, Ein neues Buch über Fichte ; *Ernst Sängner*, Kants Auffassung von der Bibel ; *A. Messer*, Die Philosophie im Beginn des zwanzigsten Jahrhunderts ; *W. Reinecke*, Eine französische Huldigung an Kant ; *J. Zahlfleisch*, Zu Kants Kr. d. r. Vern. S. 651 (Kehrbach) im Zus. d. Systems ; Recensionen ; Selbstanzeigen ; Mitteilungen.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, XIV, 6 : *A. Hannequin*, La méthode de Descartes ; La philosophie de Leibniz et les lois du mouvement ; *Th. Ruysen*, La guerre et le droit ; *G. Aillet*, La responsabilité objective ; *G. Cantecor*, Principes de morale rationnelle par A. Landry ; *H. Poincaré*, A propos de la logistique ; *A. Fouillée* A propos de l' idée de vie chez Guyau ; *L. Couturat*, Logique et moralisme ; Tables des matières ; Supplément.

REVUE PHILOSOPHIQUE, XXXI, 10 : *G. Dumas*, Les conditions biologiques du remords ; *F. Paulhan*, L'échange économique et l'échange affectif : le sentiment dans la vie sociale ; *W.-M. Kozłowski*, L' 'a priori' dans la science ; Revue critique ; Analyses et comptes rendus ; Revue des périodiques étrangers.

XXXI, 11 : *H. Bergson*, L'idée de néant ; *C. Bos*, Des éléments affectifs de la conception ; *E. Rignano*, Une nouvelle théorie mnémonique du développement ; *Probst-Biraben*, L'extase dans le mysticisme musulman ; Revue générale ; Analyses et comptes rendus ; Revue des périodiques étrangers.

REVUE NÉO-SCOLASTIQUE, XIII, 3 : *V. Ermoni*, Nécessité de la métaphysique ; *A. Mansion*, L'induction chez Albert le Grand (fin) ; *Clément Besse*, Lettre de France : L'agonie de la morale ; *S. Deploige*, Le conflit de la morale et de la sociologie (suite) ; *Georges Legrand*, A propos de Maine de Biran ; *J. Laminne*, La permanence des éléments dans le composé chimique ; *D. Nys*, Réponse aux difficultés proposées par M. Laminne ; Bulletin de l'Institut de Philosophie ; Comptes rendus.

REVUE DE PHILOSOPHIE, VI, 10 : *Paul Gaultier*, La critique d'art ; *N. Vaschide* et *R. Meunier*, La mémoire des rêves et la mémoire dans les rêves ; *E. Baudin*, La philosophie de la foi chez Newman, IV ; Analyses et comptes rendus ; Périodiques ; L'enseignement philosophique.

VI, 11 : *J. Gardair*, La connaissance de Dieu ; *G. Gueutin*, Le libre arbitre ; *Abbé Gayraub*, Marcel Hébert : L'évolution de la foi catholique ; Analyses et comptes rendus ; Périodiques ; L'enseignement philosophique.

THE
PHILOSOPHICAL REVIEW.

CAUSALITY.

IT has frequently been pointed out that many controversies are due to the fact that the disputants employ the fundamental terms in different senses. When there is no agreement concerning the basal notions used in a discussion, it will be impossible for the participants to reach the same conclusion. The way one interprets certain facts will frequently depend upon the conceptions or definitions which one has made one's starting point. I have tried to show in a paper on "The Theory of Interaction," published in THE PHILOSOPHICAL REVIEW,¹ that many thinkers really deduce their conclusions on the question of the relation between mind and body from their conception of causality, and that their results differ as their interpretations of this law differ. It seems that, in spite of all that has been written on this subject, there is no universal agreement as to what causality really means. Under these circumstances it does not seem to me out of place to consider this whole problem again. We shall attempt to answer three questions here: (1) What does the notion mean? (2) What is its origin? (3) What is its validity?

Hume started out with the idea that all our notions are derived from our sensations, that when we analyze our thoughts or ideas "we always find that they resolve themselves into such simple ideas as were copied from a precedent feeling or sentiment."² This principle largely determined his conception of causality, for on this hypothesis there can be nothing in the idea of cause that is not derived from our perceptions. Now all we

¹ Vol. X, pp. 124 ff.

² *Inquiry concerning Human Understanding*, Section II.

experience, when we call one event the effect or cause of another, is coexistence or succession. We do not see powers or forces operating between phenomena in the physical realm. "When we look about us towards external objects and consider the operation of causes, we are never able in a single instance, to discover any power or necessary connection; any quality which binds the effect to the cause, and renders the one an infallible consequence of the other. We only find that the one does actually in fact follow the other. The impulse of one billiard-ball is attended with motion in the second. This is the whole that appears to the outward senses. The mind feels no sentiment or inward impression from this succession of objects; consequently there is not, in any single particular instance of cause and effect, any thing which can suggest the idea of power or necessary connection."¹

Nor do we derive this notion from "reflection on the operation of our own minds." We are conscious that the motion of our body follows upon the command of our will, but we are not conscious of the energy by which the will performs this operation. In short, we never discover anything but one event following upon another; we never discover any power, all we see is one event following another, hence it is meaningless to talk about such a power. We see one event always conjoined with another, we therefore suppose there is some connection between them, some power in the one by which it infallibly produces the other and must always produce it.² After a repetition of similar instances, "the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe that it will exist. This connection, therefore, which we *feel* in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression from which we form the idea of power or necessary connection. Nothing farther is in the case. Contemplate the subject on all sides; you will never find any other origin of that idea. This is the sole difference between one instance, from which we can never receive the idea of connection, and a number of similar instances, b

¹ *Op. cit.*, Section VII.

² Section VII, part ii.

which it is suggested. The first time a man saw the communication of motion by impulse, as by the shock of two billiard balls, he could not pronounce that the one event was *connected*, but only that it was *conjoined* with the other. After he has observed several instances of this nature, he then pronounces them to be *connected*. What alteration has happened to give rise to this new idea of *connection*? Nothing but that he now *feels* these events to be *connected* in his imagination, and can readily foretell the existence of one from the appearance of the other."¹

John Stuart Mill's view does not differ much from this. "The only notion of a cause," he says, "which the theory of induction requires, is such a notion as can be gained from experience. The law of causation . . . is but the familiar truth, that invariability of succession is found by observation to obtain between every fact in nature and some other fact which has preceded it; independently of all considerations respecting the ultimate mode of production of phenomena, and of every other question regarding the nature of 'things in themselves.'"² "When we define the cause of anything (in the only sense in which the present inquiry has any concern with causes) to be 'the antecedent which it invariably follows,' we do not use this phrase as exactly synonymous with 'the antecedent which it invariably *has* followed in our past experience.' . . . But it is necessary to our using the word cause, that we should believe not only that the antecedent always *has* been followed by the consequent, but that, as long as the present constitution of things endures, it always *will* be so. . . . This is what writers mean when they say that the notion of cause involves the idea of necessity. If there be any meaning which confessedly belongs to the term necessity, it is *unconditionality*. That which is necessary, that which *must* be, means that which will be, whatever supposition we may make in regard to all other things. . . . Invariable sequence, therefore, is not synonymous with causation, unless the sequence, besides being invariable, is unconditional. . . . We may define, therefore, the cause of a phenomenon, to be the antecedent, or the concurrence of antecedents, on which it is invariably and *unconditionally* consequent."³

¹ *Ibid.*

² *Logic*, Bk. III, ch. v, § 2.

³ *Ibid.*, § 6.

Hume and Mill agree that causality means regular temporal succession or coexistence, and they both also eliminate the idea of force or energy from the notion. Mill admits that we experience effort in our own voluntary action, but sees no reason why we should read this experience into the physical world: that would be fetichism.¹ Hume is somewhat vacillating on this point. After denying that we perceive such power or energy or force in our own minds, he finally admits, in a note, that we experience it and that it enters into the vulgar inaccurate idea of causality.²

Many modern thinkers, however, introduce into the notion of causality the very idea which Hume and Mill and their followers reject as fetichism. Thus Erhardt, in an able work on metaphysics,³ makes the feeling of effort the very heart of the causal idea. According to him, we have an immediate perception of *Wirken* and *Bewirken* in ourselves in our feeling of effort. Indeed, by *effecting* (*Bewirken*), he says, I mean just what I experience in myself when I exert myself and produce a change in the inner and outer world. Of course, I do not know *why* this happens, but I know *that* it happens. *Wirken* means what we have in this experience. A change *produces* another means that a sensation of effort is followed by an external effect. "We experience ourselves as willing and acting beings; willing and acting, however, are notions which already imply the idea of *Bewirken*, as has been pointed out. Hardly less certain is the fact that external objects produce certain effects; the sensations of resistance, *e. g.*, which we experience in attempting to move a body show at once that this body possesses a certain power of action. True, the sensation itself is all that is directly given to us; at the same time we perceive that this sensation arises when the object comes in contact with our body. We also know that the sensation does not arise without such contact, and that it always arises on occasion of the contact. Finally, our inner experience tells us that we do

¹ *Op. cit.*, ch. v, § 11.

² *Inquiry*, Section VII: "It must, however, be confessed that the animal *nisus* which we experience, though it can afford no accurate precise idea of power, enters very much into that vulgar, inaccurate idea which is formed of it."

³ *Metaphysik*, Vol. I, pp. 440 ff.

not ourselves voluntarily produce the sensation. Hence we have to infer that the contact of the external object is the cause of our sensation, *i. e.*, we experience the efficiency of the resisting body through our feeling of resistance. . . . Whatever the object may be in itself, so far as we know it through experience it is bound to be a body that can produce certain effects."¹

Both conceptions are open to criticism, in my opinion. In the first place, it is not true that the idea of temporal succession exhausts the notion of causality. Scientists may perhaps find it wise to use this conception of cause; indeed, perhaps we ought always to use it in this sense. But it is not true that by a cause we merely mean an invariable antecedent. By a cause we mean not merely a thing or event that has preceded and will precede another; we mean by it a thing or event that is somehow the ground of another, that without which the other could not be, through which or by which the other thing or event is. It is the phenomenon on which the other phenomenon somehow depends and necessarily depends. It cannot be without the other. When two events appear regularly, I feel inclined to regard one as the ground or cause of the other; but this is a thought added to the idea of temporal succession. Temporal coexistence or succession is an invitation to the mind to interpret the phenomena causally, but it is not identical with the causal notion. The essential element in the conception of cause is the idea of ground, the idea that a phenomenon somehow owes its existence to some other phenomenon, that it would not have been and could not have been if the other had not made it possible for it to be. This is because that is, I say. This change has brought about that one. If this one had not been or were not, that one would not be. There is more implied here than the time element. I may say: This change follows that, or accompanies that, exists with that; when this one exists, that one exists. But this is not the same as saying: This one exists *because* that one exists. Indeed, one may exist simultaneously with the other, and yet the two may not be related as cause and effect. When I say that one thing exists *because* the other exists,

¹ *Op. cit.*, p. 474.

I mean that one cannot be without the other, that the one brought the other one about. When I say: The change *a* produces the change *b*, I mean that the change *b* owes its existence to the change *a*, that somehow these changes hang together.

We have causality when we say one thing is somehow the ground of the other, in the sense that the second owes its existence to the first. Hence the idea of force as something analogous to our will is not essential to the causal conception either. I do not mean to say that the volitional element, as Mill calls it, does not accompany the popular notion of causality; the example of so many thinkers who make it the essential side of causality indicates that it does. Nor do I contend here that we ought not to employ this idea of force or energy in our interpretation of the world; that is a question by itself. What I mean to say is that this volitional element is not the essential element in the causal notion, that the idea of force or will does not give us the idea of cause. Before I can have causality, even in cases where I employ the idea of force, I must regard the force as the *ground* of another phenomenon; I must relate it with that phenomenon. When I apply the causal notion to the relation between mind and body, I do not merely say that the motion of the body follows my feeling of effort, but that it owes its existence to the feeling of effort, that it is *through* this, brought about *by* this. In short, the fundamental thought in the notion of causality is the idea of ground. When I have called one thing the ground of another, in the sense mentioned above, I have applied the causal concept. I may then try to picture to myself how one phenomenon brings about the other and introduce into the conception of causality the notion of force, as something analogous to the feeling of effort. Thus the primitive thinker is supposed to read his own inner experiences into the world; he believes that changes are produced by some power akin to himself in the things or behind them, making them go. This idea of a will is in the course of time modified, stripped of some of its anthropomorphic elements, and reduced to the idea of a force or power, something like the original feeling of effort from which it springs, — but with the consciousness left out, as it were.

But we must not forget that this is only a way of interpreting the world, a particular application of causality and not causality itself. I have the idea of causality, when I say this thing is the ground of that, without having a detailed picture of the process by which the second is produced. I may say, for example: An idea is the cause of a feeling. Here I do not necessarily regard the idea as a force or will to which the feeling owes its existence; I may have no notion whatever of how it happens that an idea brings about a feeling; I may simply say: If it were not for the idea, the feeling could not be; the idea is the ground of the feeling. Or I may say a movement is the cause of another movement, my notion being that somehow movement *b* owes its existence to movement *a*, that *b* would not be and could not be if it were not for *a*.

The truth is that we are not satisfied with the mere statement that one phenomenon is the ground of the other, that is, with applying the notion of causality; but we attempt to make the relation plainer to ourselves, to see how this thing owes its existence to the other, to insert between the imagined ground and the effect other elements. I may imagine, for example, that because a movement in my body was caused by a feeling of effort, all movements are caused that way or similarly. Or I may believe that, because movements are produced by me by laying hold of things, all movements must be produced that way. Now it may perhaps be found necessary to accept one or the other of these modes of interpreting nature; but that is another question. It may be impossible to explain the world without assuming force or without accepting the view that things must touch each other in order to influence each other. That is a problem by itself. I have applied the causal notion when I say that one thing is the ground of the other. I may not have given the true ground; but that is the fault of my science or my metaphysics, and not of my conception of causality. We must not read more into our notion of causality than it contains.

In short, the idea of cause is a very general formula meaning that one phenomenon somehow owes its existence to another, that it would not be if it were not for the other, that the two are

not merely coexistent or successive, but that the one is because the other is, that the first has brought the second into existence, that the latter would not have appeared if it had not been for the former. The relation is not a mere temporal and accidental juxtaposition; there is connection here, system, order. Things are conceived as somehow hanging together, as requiring each other, as necessary members of a series. Each one has its place in a system — be that system large or small — depends on something else; nothing is independent, 'loose and separate,' unrelated; everything has a meaning. This is all that is implied in the idea of causality as such. We do not, however, always stop here in our thinking, but often try to explain how *a* causes *b*. That is, we fill in the somewhat empty formula of causality. And here, of course, there are many different conceptions possible, among them that of force, which has its origin in the feeling of effort.

We must also guard against deducing certain consequences from the notion of causality which do not really follow from it, but are deduced from other principles which we read into the idea of causality. We apply the causal principle to particular phenomena; we ask, Why are they, to what do they owe their existence? Wherever we notice a change, for example, we inquire into the ground of the change and expect to find a ground. We are so sure that there is a ground that we formulate the general law: Everything that happens must have a ground why it happens. This does not mean, however, that every effect must have the same cause. That does not follow from the law as such. It is immaterial to the law as law whether a certain change has the same cause or not. Nor does it follow that things happen in the future exactly as they happened in the past. The belief in the uniformity of nature, in the universal reign of law, is a later product than the belief in causality. Savages do not believe that things happening around them are uncaused; when they are interested enough in their surroundings to observe changes, they certainly suppose that these are caused by something. When they assume the existence of occult powers producing good and evil, they are applying the causal notion. They do not believe in miracles in the sense of events that have no cause; their

miracles are always caused by some power. Hence it is not correct to say that, because certain peoples believe in miracles, they have no notion whatever of cause. But primitive peoples, children, uneducated persons, yes, many educated persons, do not form the notion of law, uniformity; they do not necessarily hold that things will always happen which have happened and as they have happened. Belief in the uniformity of nature, as commonly understood, and belief in causality are not the same.¹

Nor does it follow from the notion of causality that the effect must be identical with the cause, be of the same nature as the cause.² The law itself says nothing of the nature of the cause or effect, but simply that nothing can happen without a cause of some kind. It may be true that an effect cannot be produced by anything different from it, but it does not follow from the notion of causality. Of course, if we put into the conception ideas that do not really belong to it, we can spin out of it whatever we choose. If we define causality as will-action, for example, we can say that there is no causality except where there is will, and then read will or something analogous to will into everything. And if we put everything into causality that Riehl, for example, sees in it, we shall have no trouble, perhaps, in obtaining his results. According to him "causality is the application of the principle of ground (*der Satz vom Grunde*) to the temporal change of phenomena, or in brief: the principle of ground in time."³ Now, he goes on to say, the sole principle of logical ground is the principle of identity. That is, we demand in logic that every proposition be connected with others, that it be shown to be either a consequence or presupposition of other propositions. Ultimately we base ourselves upon the principle of identity; our conclusion really follows necessarily from the premises according to the law of identity. In the same way the causal principle is based upon the principle of identity applied in time or to phenomena. Hence the grounding concept (*der begründende Begriff*) and the grounded concept (*der begründete*) must

¹ See Mill, *Logic*, Bk. III, ch. xxi; Erhardt, *Metaphysik*, Vol. I, pp. 480 ff.

² See Riehl, *Philosophischer Kriticismus*, Vol. II, Part I, pp. 236 ff.; Kromann, *Unsere Naturerkenntnis*, pp. 242 ff.

³ *Op. cit.*, p. 240.

be similar, homogeneous. For example, we cannot understand psychical effects from physical causes. Moreover, the ground must be sufficient, and the sufficient ground can contain neither more nor less than is necessary for the ground.¹

Riehl bases the principle of causality upon the principle of identity, and applies this to phenomena in time. Whatever is, remains what it is. This means, whatever *is*, continues to be, persists, lasts, endures. It means that a thing cannot perish, go into nothing; for if it did, it would not persist. Nor can a thing come from nothing. Nothing must remain what it is; if it becomes something, it does not remain nothing. For the same reason the effect must be identical with the cause; the cause must remain what it is or identical with itself.

But Riehl misinterprets the principle of identity, in my opinion. The principle of identity simply declares that whatever is, is, not that a thing must persist or endure in its essence. It holds that when once we have said a thing we must adhere to it during our argument, that we must remain consistent with ourselves. I cannot say, A thing is and a thing is not; that is, negate what I have already predicated of a thing. But there is nothing impossible in the statement that a thing is and now is not, that it was and is not. It is not logically necessary that a thing remain what it is, that it do not change. In one case, *is* is merely the sign of logical predication; I say this thing is thus or so, which means this thing has this or that attribute. But when I say this thing *is*, in the other sense, I mean: is in time. So, too, by logical ground we mean to give the reason for a proposition. I say this man is mortal, because all men are mortal. That is, when I say all men are mortal, I cannot say this man is not mortal, for I have already implied that he is, and I must adhere to what I have started out with. If all men are mortal and this one is a man, then he must be mortal; for whatever is, is. The logical ground, that is, contains the proposition grounded upon it; the latter is really identical with the former. This is what Riehl means, when he says: The grounding concept and grounded concept are homogeneous. But it does not follow from this that

¹ *Op. cit.*, pp. 238 f.; pp. 219 ff. also p. 255.

the cause is identical with the effect : logical ground and real ground are not the same.

The attempts which have been made to deduce the law of the conservation of energy from the law of causality are based upon the same misinterpretation of causality. The reasoning may be summarized as follows : The fundamental law of mind is the principle of identity : Whatever is, is, and nothing can both be and not be. From this principle follows the principle of sufficient reason : Nothing can happen without a sufficient reason for its happening as it does. That is, every effect must have its cause, nothing can happen without a ground. Hence nothing in nature can be created out of nothing, for if it could, we should have an effect without a cause. Nor can anything be lost or disappear, for if it could, we should have a cause without an effect. Accordingly, no form of energy can be lost ; when it seems to disappear, it simply changes into a different form, which is equal to its original form, equal to it in *quality* and in *quantity*. This is the law of the conservation of energy, which is here supposed to follow necessarily from the law of causality, which, in turn, is supposed to be a necessary consequence of the principle of identity.¹

On the basis of these reasonings the theory of parallelism, too, is conceived as necessarily following from the principle of causality. If the effect must be homogeneous with the cause, then mind cannot be the cause of motion, and *vice versa*. If motion could be transformed into mind, and mind into motion, then energy would be lost and energy would be created, which is impossible. So mental states cannot produce physical states, nor physical states mental states, and parallelism is the necessary implication of causality.²

Our conclusions then, so far, are these : Temporal succession and causality are not identical, nor is the idea of force identical with the notion of causality. The essential element in the causal form is the idea of ground. The principle of the uni-

¹ See Riehl, *op. cit.*; also his article in the Sigwart Festschrift, "Robert Mayer's Entdeckung und Beweis des Energieprinzips."

² See PHILOSOPHICAL REVIEW, Vol. X, pp. 124 ff.

formity of nature does not follow necessarily from the notion of causality as such. Nor does it follow from the notion of causality that the effect must be identical with the cause. The principle of the conservation of energy does not follow from the principle of causality as a logical necessity, nor does the theory of psychophysical parallelism.

As we said before, the idea of cause is a general formula, meaning that one phenomenon somehow depends on another. This general principle is employed in the different fields of science where causal explanations are at all possible. Each science, however, gives to it the special form which seems to be required by the condition of that science, or, rather, combines it with its working principles. A science that deals with motion or forces or energies as its fundamental concepts will read into the notion of causality motion, force, or energy; for it every cause will be a movement or a force or an energy; its explanations will all be either mechanical or dynamic. To such a science a teleological interpretation of facts, for example, will seem an absolute violation of the causal principle and the utter abandonment of explanation. For a science that identifies causality with mechanism, the world ceases to have a meaning where motion stops; to it vitalism and teleology will be sheer nonsense. We do not wish to plead the cause of vitalism or teleology here; our purpose is simply to point out that each particular science tries to foist its special form of causality upon its neighbors and to interpret their results in the light of its own working concepts. What particular form the causal principle shall take, *i. e.*, what the nature of the particular causes shall be, whether force or motion or a vital principle, or mind, will depend upon our experiences with the world, and is not deducible from the idea of causality as such.

We are now ready to take up our second question: What is the origin of this principle? How does it arise? Does it come from experience or is it an inherent, *a priori* possession of the reason? According to the rationalists, it is the latter. That every effect must have its cause is, according to Descartes, an innate principle. Wolff tries to deduce it from the principle of

contradiction, which is an *a priori* truth. He reasons that, if the ground of a thing lies in nothing, then nothing is its ground, which is equivalent to saying that nothing as an efficient principle is something, a contradiction in terms.¹ Kant regards the principle that 'everything that happens presupposes something on which it follows according to rule,' as a category or a *a priori* form of the understanding.

Hume holds that the notion of causality is derived from experience. "The knowledge of this relation [the causal]," he says, "is not, in any instance, attained by reasonings *a priori*; but arises entirely from experience when we find that any particular objects are constantly conjoined with each other." "The mind can never possibly find the effect in the supposed cause by the most accurate scrutiny and examination. For the effect is totally different from the cause, and consequently can never be discovered in it." We say an event is the effect or cause of another, because we have experienced them together. But, even after we have experienced the operation of cause and effect, we cannot base our conclusions on reason. We know that bread nourishes us, but how it does this we do not know. We do not know the secret powers that produce the effects. A person brought suddenly into the world, having powers of reflection and reason, would perceive objects succeeding each other and nothing else. If he lives long enough to have observed that similar events or objects are constantly conjoined together, he immediately infers the existence of one object from the appearance of the other. The principle which determines him to draw such a conclusion is the principle of custom or habit. After the constant conjunction of two objects, heat and flame, for instance, or weight and solidity, we are determined by custom alone to expect the one from the appearance of the other. We believe it. "This belief is the necessary result of placing the mind in such circumstances. It is an operation of the soul, when we are so situated, as unavoidable as to feel the passion of love, when we receive benefits, or hatred, when we have met with injuries. All these operations

¹ Überweg, *Logik*, p. 272. In his earlier writings Kant identifies real ground with logical ground. See *Nova dilucidatio*, II, proposition x. This view is given up in *Versuch den Begriff der negativen Grössen in die Weltweisheit einzuführen*.

are a species of natural instincts, which no reasoning or process of the thought and understanding is able either to produce or to prevent.”¹

According to Mill also, the notion of causality is derived from experience. Experience teaches us that every fact in nature is invariably preceded by some other fact. “The belief we entertain in the universality, throughout nature, of the law of cause and effect, is itself an instance of induction; and by no means one of the earliest which any of us, or which mankind in general, can have made. We arrive at this universal law by generalization, from many laws of inferior generality. We should never have had the notion of causation (in the philosophical meaning of the term) as a condition of all phenomena, unless many cases of causation, or, in other words, many partial uniformities of sequence, had previously become familiar. The more obvious of the particular uniformities suggest, and give evidence of, the general uniformity, and the general uniformity, once established, enables us to prove the remainder of the particular uniformities of which it is made up.”²

Erhardt explains as follows: The idea of causing and effecting (*Wirken und Bewirken*) is originally given by experience; if it were not, no reflection upon the changes could suggest to us the notion of a causal nexus existing between them. But our belief in the universality of the causal law is not derived from induction; we are compelled to ascribe to the law a *methodological* universality.³

These answers are discordant, partly because the conceptions of causality which underlie them differ so much, partly because different phases of the law are discussed. We can at once agree with Hume, that we have no *a priori* knowledge of *particular* causal relations; indeed, the rationalists did not commit themselves to this view. Hume is right: “Adam, though his rational faculties be supposed, at the very first, entirely perfect, could not have inferred from the fluidity and transparency of water, that it would suffocate him; or from the light and warmth of fire that

¹ *Inquiry*, Sections IV and V.

² *Logic*, Book III, ch. xxi.

³ *Metaphysik*, Vol. I, pp. 477 ff.

it would consume him." Kant agrees with this. He does not believe that we have an *a priori* knowledge of particular causal relations, but that we depend on experience for this. We can also agree with both Hume and Kant that knowledge without experience is impossible, that in order to know we must have sensations. "Gedanken ohne Inhalt sind leer." But is there not an element in the causal notion which cannot be explained, which we shall have to accept, without being able to deduce it from our sensations? The answer to this question will depend in a measure upon our conception of causality. If causality means universal temporal succession merely, then we might say this: Experience teaches us that events follow each other; we infer that because a thing has happened several times, it will happen always. Here the law of uniformity is not something observed by us, but an inference, a leap from the known to the unknown. We do not observe that all events are preceded by other events, but only that some are. We *believe*, however, that what has happened in the past will happen in the future. This belief is something like an instinct, as Hume himself declares. "I shall add for a further confirmation of the foregoing theory," he says, "that, as this operation of the mind, by which we infer like effects from like causes, and *vice versa*, is so essential to the subsistence of all human creatures, it is not probable, that it could be trusted to the fallacious deductions of our reason, which is slow in its operation; appears not, in any degree, during the first years of infancy; and at best is, in every age and period of human life, extremely liable to error and mistake. It is more conformable to the ordinary wisdom of nature to secure so necessary an act of the mind, by some instinct or mechanical tendency, which may be infallible in its operations, may discover itself at the first appearance of life and thought, and may be independent of all the labored deductions of the understanding. As nature has taught us the use of our limbs, without giving us the knowledge of the muscles and nerves by which they are actuated; so she has implanted in us an instinct, which carries forward the thought in a correspondent course to that which she has established among external objects; though we are ignorant

of those forces and powers on which this regular course and succession of objects totally depends." ¹ We have here, then, what may fairly be called an ultimate category. In this sense we can say, even on the empirical interpretation of causality, that there is an element in our conception of cause which must be attributed to the nature of man as such.

We may also approach the problem from another side and reason thus: Mere association of ideas would never give us an idea of uniformity; indeed, it would not enable us to connect any two experiences. The having of a series of sensations or ideas will not yield knowledge; a succession of sensations is not a knowledge of succession. In order to have a consciousness of succession, an additional psychical element must be introduced: a feeling of succession. If our consciousness consisted simply of a series of disconnected mental facts, a heap (*ein Haufe, ein Gewühl*) of sensations, as Kant terms it, knowledge would be impossible. As James says: "Take a hundred of them [feelings], shuffle them and pack them as close together as you can (whatever that may mean); still each remains the same feeling it always was, shut in its own skin, windowless, ignorant of what the other feelings are and mean. There would be a hundred-and-first feeling there, if, when a group or series of such feelings were set up, a consciousness belonging to the group as such should emerge. And this 101st feeling would be a totally new fact." ²

Hence we could not even say, *some events* succeed each other, if we accepted a purely sensationalistic theory. In order to have this experience, we must, roughly speaking, be able to keep two ideas together in consciousness, we must connect our sensations. The sensations will not connect themselves, we must connect them. This synthetic function we cannot further explain; we are compelled to accept it as a fact of consciousness. We believe that it belongs to the furniture of the mind and in this sense can call it *a priori*.

Now let us consider our own interpretation of the causal law.

¹ *Inquiry*, Section V.

² *The Principles of Psychology*, Vol. I, ch. vi, p. 160.

We mean by causality the reference of a thing to something else as its *ground*, as that to which the thing somehow owes its appearance. Here we not only hold two ideas together in consciousness, synthesize them in the manner already indicated, but we view one thing as standing in a particular relation to the other. Whenever we observe an event, we ask for its ground, we ask for some other fact or phenomenon on which it depends. We cannot explain why we do this, it is a way we have, a mental attitude or, if we choose to call it so, an *a priori* form of the mind. We are so constituted, in other words, that whenever a phenomenon is presented to us, we refer it to another phenomenon as its ground.

It is possible that this function is a product of natural selection, that only such animals as possessed it survived in the struggle for existence and handed it down to offspring, and that in this way a race of beings was finally produced having the so-called 'causal instinct.' But all that does not explain to us the possession of this function by the first animal that handed it down.

We repeat then: The causal function, as we have described it, is a postulate of our thinking, a tendency to connect phenomena in a certain way. It is an attitude of consciousness towards phenomena, a way we have of connecting things, a way that cannot be further explained.

This does not mean that we have an *a priori* knowledge of the principle as a law, that we know from the very beginning that every phenomenon has its cause. We ask for the cause every time a phenomenon is presented to us,—in this sense, the causal idea is a form of the mind,—but we do not formulate the general proposition that every effect must have its cause until we reflect upon our experiences, and, in this sense, the causal law is a generalization from experience, the result of induction. There is a difference between looking for a ground in each particular case presented and formulating the general proposition that every phenomenon must have a ground.

The third question which we have to answer concerns the validity of the causal principle. We relate phenomena according to the notion of cause and effect. We cannot help doing

this ; it seems to be an inevitable tendency of the mind to connect our facts in the causal manner. We say: This fact or phenomenon is, because that one is or was ; the two are not only co-existent or successive, but one is the ground of the other, without it the other would not and could not be. Now we may ask two questions here : (1) What right have we to regard one phenomenon as the cause of the other ? (2) What right have we to say that all phenomena are causally related ?

What right have I to speak of a particular phenomenon having a ground ? I find a phenomenon surrounded by countless other phenomena. I select one of these as the cause of the other. All I perceive is the phenomena themselves. I rub an object and it becomes warm. I say the rubbing *made* it warm. I heat a body and it expands. I say the heat did it. I see a moving bell, I hear a sound. I say the bell makes the sound. I have a feeling of effort and then my muscles move. I say the feeling of effort or my will causes the movement of my muscles. I remember a certain scene and a sorrowful feeling arises. I say the memory image is the ground of the sorrowful feeling. Now in all these cases I do not merely say that the different phenomena follow each other, but that the one is the ground of the other. Why should I look for a ground at all, why am I not satisfied with saying, the bell and the sound go together, the sound never comes alone ?

Some one perhaps answers: The primitive man learned by experience that he produced changes in the world. He pushed an object and it moved. He therefore regarded himself as the ground of the movement. *He* did it. Then he reasoned that when other things moved there was something behind them that moved them as he moved them. But the question is : Why should he regard himself as the mover in the first place ? You say he perceived himself moving it. No, he did not. He said move, and it moved. All he experienced was that a movement followed his volition. But he does not stop here ; he is not satisfied with saying that a movement follows his act of will. He says he *made* it move, he was the ground of its moving. What right has he to say that ? He has a right to say : I pushed and it

moved ; I put forth effort and something happened. Perhaps the first time it happened, he did not look upon himself as the ground. He stopped pushing and it stopped moving, he pushed a little and it moved a little, he pushed much and it moved much. Then he said, I did it, I made it move, I can do it again, I am the cause. Here he reasons that he did it because, when he stops, it stops, when he pushes, it moves. If he should say to the sun, stop shining, and it should stop shining, and, now shine again, and it should shine, he would come to regard himself as the cause of the sunshine.

Here we reach an element which we cannot explain. It is a mental attitude, a postulate of thought, if we choose to call it so. We can state the conditions under which it appears, but we cannot tell why it follows these conditions. In order that this causal function shall arise, certain conditions must be fulfilled, but when it arises something new and unique appears on the scene. What justification is there for its use? What are its rights? Well, it is a postulate of our thinking, and there can be no human knowledge without it. The human mind is a relating activity, it aims to understand the world, to find a meaning in it, to bring order and connection into it, to explain it. Wherever a phenomenon is presented, we look for a ground or cause, for dependence, we seek to bring it into connection with something else, we are never satisfied with a bare fact as such. The mere statement of spatial and temporal coexistence or sequence is not explanation, and without explanation scientific knowledge is impossible. Nor is mere description science, if we mean by description the mere statement of what happens in space and time. If thinking means to relate things in the manner indicated, then we have a right to say that for thought all phenomena are causally related and will be so related as long as thinking is what it is. Where explanation stops, science and philosophy find their occupation gone.

FRANK THILLY.

THE UGLY INFINITE AND THE GOOD-FOR- NOTHING ABSOLUTE.¹

EVER since philosophy emerged from the hylozoic age and began to free itself from the bondage of picture-thinking, it has been pursued by an antinomy which haunts it still, the antinomy of the Infinite and the Absolute.²

It seems to the early Greek philosopher, as it seems to every one when he first starts on his quest after truth, that what he is seeking is the changeless reality that lies behind, and occasions, the changing things of experience, the ultimate unity that ties together the obvious variety which experience presents. That grand old man Parmenides firmly grips this conception, and boldly draws the inevitable inferences, laying down the law as one who speaks with authority, as an absolutist should :

“ Listen, and I will instruct thee, and thou, when thou hearest, shalt ponder —
What are the sole two paths of research that are open to thinking.
One path is : That Being doth be, and Non-Being is not :
This is the way of Conviction, for Truth follows hard in her footsteps.
Th’ other path is : That Being is not, and Non-Being must be ;
This one, I tell thee in truth, is an all-incredible pathway.”³

But when Parmenides goes on to tell us *what* Being is, he simply piles up the negative characteristics, — the only kind left when the world of change is excluded, — which merely declare what Being is not : It is birthless and deathless, whole and unbecotten, neither more of it here nor less of it yonder, the one true reality which things are merely our names for.

No doubt the rabble, blind worshippers at the shrine of common sense, displayed their ingenuity in jibes and jeers hurled at

¹ Read before the American Philosophical Association, at the New York meeting, December 27, 1906.

² By Infinite is here meant the boundless, the *ἄπειρον*, the endless regress, which is implied in empiricism, as the idealist views it ; by Absolute, the fixed and definite and final, whether regarded simply as pure Being, or as standard of reference, scale of worth, or world of meaning.

³ The quotations from Parmenides I give in Mr. Davidson’s translation.

the head of the philosopher off in his cold realm of abstraction ; but he in turn shows a fine scorn for "the deaf and dumb and blind and stupid unreasoning cattle, herds that are wont to think Being and Non-Being one and the same thing, and that all things move in a circle," — that is, for those who fancy they can get along without any fixed reality and truth, can think from hand to mouth, and still count themselves reasonable.

It is, however, cold comfort to nurse an abstraction ; and making an abstraction into reality does not explain the world of experience, but would rather explain it away. If this be knowledge, it is useless. And over the water, in the opposite border of Greece, another philosopher had been following that "all-incredible pathway," and it may well enough have been he whom Parmenides had in mind when he paid his respects to his opponents in the words I have quoted, which were possibly written to even the score with Heraclitus, who had spoken with scorn of Parmenides's teacher when he said : "Much learning doth not make wise, else would it have taught Xenophanes." To Heraclitus, "the eyes and ears are bad witnesses," but only "to him who has not an understanding heart." Rightly used, they reveal the truth that in the actual world all is ever changing, nothing ever stays put, opposites unite, and strife is the life of all things. Heraclitus has reached the wisdom of Uriel, when, in Emerson's poem, he declares :

" Line in nature is not found ;
 * * *
 In vain produced, all rays will turn ;
 Evil will bless, and ice will burn."

And the poet goes on to tell how this shocking heresy produced consternation "in the holy festival." The stern old war gods of absolutism shook their heads, and the seraphs, sheltered under the wing of absolutist tradition, and peacefully lounging on their myrtle beds, frowned. This rash doctrine boded ill to all.

" The balance-beam of Fate was bent ;
 The bounds of good and ill were rent ;
 Strong Hades could not keep his own
 And all slid to confusion. "

But, none the less, "truth-speaking things" are gradually justifying Uriel-Heraclitus, and the old gods of absolutism are quaking in their spheres though they do not know just why.

Thus, at the dawn of philosophical reflection, this troublesome antinomy of the Absolute and the Infinite appears. It is not too much to say that most of the discussions of fundamental problems in philosophy center in it, and that the chief effort of philosophers from that day to this has been to find a way of solving it; and that when with respect to any problem one attempts, as is customary, to dichotomize philosophers, the principle of division will be found to be based on the relative importance assigned to one or the other of the sides of this antinomy. When philosophical discussions wax polemical, as once in a while they will, then one's opponent is supposed simply to have embraced one side of the antinomy, while blindly ignoring, or shamefully belittling, the reasons which make for the other side. This granted, the logical difficulties of his position are easily made evident, and adjectives of abuse, now as of old, not infrequently enliven the discussion. In earlier times the partizans of the Absolute triumphed, and the Infinite, to which their opponents were supposed to be committed, was dubbed 'ugly,'—about as strong a term of reproach as the Greek could find; for the ugly was the bad and the false made manifest. In recent times, and partly due to the conquests made by the theory of evolution in all fields of knowledge, the partizans of the Infinite are coming to be more and more conspicuously in evidence, and they are returning the compliment. Their opponents' view leads to an Absolute which is 'good-for-nothing,'—as abusive an epithet as one can find in our own strenuous and practical age. And as for the 'ugly infinite,' why, they add, we are romanticists nowadays, and may retort with Lowell concerning your classical ideal:

"The Grecian gluts me with his perfectness,
The one thing finished in the world."

I shall not attempt to dispute about taste in ultimates. If one likes a 'wide open' universe, that is his affair. If, however, this view is presented as true, it comes within the field of discussion.

Now the difficulty with this empiricism is, that it involves the infinite regress, and thereby takes away the meaning of truth. It only seems not to do this because one keeps arresting the process continually to suit the needs of the passing moment. But, in fact, one no sooner gets his anchor down on what appears to be solid ground than one finds it dragging once more. The view, in short, leaves us with a subjectless, objectless, substanceless, godless philosophy. I am, in this paper, not concerned to substantiate these charges, but rather to consider the counterblast that comes from the camp of empiricism. That charge is practically as follows: In attempting to extricate himself from his ontological bankruptcy, the idealist has simply spent his last remaining resources in purchasing a gold-brick called the Absolute. This may, indeed, give him for the time being a feeling of relief, as he dreams of the untold wealth of meaning that might be his; and the illusion will last, until he tries to cash it in and make it work in the matter-of-fact world of experience. Then its true nature appears. It is utterly useless.

All who are not radical empiricists or immediatists, all who believe in a reality which cannot be dissolved in the river of experience, are declared to be absolutists. I pass by the realists, who, from this point of view, must be ranked with the absolutists, and confine my attention to the idealists. And I ask: Is it true that their conception of the real-ideal as in some sense fixed and eternal is a useless conception?

There are, of course, many forms of idealism, but with respect to no one of them can the charge be made out that its conception of reality is useless. Idealists fall into two broadly distinguishable groups, according as their reality is conceived statically or dynamically. The former group may, with a certain surface show of plausibility, be charged with introducing the conception of an absolute which is useless in the interpretation of experience. And yet philosophers of all schools owe a lasting debt of gratitude to the stubborn and uncompromising old Eleatic logician whom the impulse for self-consistency drove to this view. Our early pictorial symbolic terms, our rough and ready-made notions, are sharpened into precise instruments of thought only through

the fearless efforts of philosophers to recognize their tacit meanings, and hold them up in clear relief, one by one, and test them by giving them plenty of rope. Nine-tenths of our difficulties in philosophy come, not, as is usually supposed, from hugging hypostatised abstractions, but rather from employing vague terms of many meanings, and unconsciously shifting the meanings in the course of a discussion. Again, bare and barren as is this conception of the Absolute in its first appearance, it is just this notion of reality that reappears in every form of mysticism. It has given us some of our best devotional literature, and has been the inspiration of some of the most beloved saints and seers. But, one may reply, the first service has been accomplished, the second is perhaps questionably a service. And, anyway, the usefulness of a *conception* is to be tested by asking whether it is of service in making the world of experience more intelligible, and here it fails. But even this much cannot be made good. Or rather, we should say, it stands or falls with the possibility of showing the usefulness of the conception in the more developed form of dynamic idealism. If this conception of the permanent is of use, then even that earlier form, though its advocates may have failed to work it out, failed to reconcile it with the changing world of experience, still, so far as it went, helped to make the world intelligible.

As applied to the later forms of dynamic idealism, the charge is wholly without force. It rests upon the assumption that because the idealist believes in a world of eternal truth where values are assessed with finality, believes in a world of meaning which changes not with our shifting beliefs, he must therefore, in order to make any real use of this conception, himself have had the completed vision, have reached finality.

It would indeed be a glorious thing, as Socrates in effect remarks in the *Phædo*, if we could tell how things are by simply showing how it is best for them to be. That would be, however, the wisdom of a god and not of man. "But," he adds, "I had a second string to my bow"; and so have we. Put briefly it is this: We have, of course, to begin with experience, and to it we must ever return; and, in trying to understand it, we do not

escape from our human limitations, and the notions that we use are confused and imperfect and open to revision. None the less, by persistent effort to think clearly, and to think consistently, that is, to think complete thoughts, we are able to work away from our initial position by definite and sure steps. There is not simply change, but progress; and progress is progress and not simply change, because a less complete view can once for all be set aside in favor of a more complete view. It is thus in this indirect way that one reaches again the concept of a fixed by starting from experience. What experience brings to light becomes intelligible if we can only suppose that all partial truths have their positions, fixed in a scale of worth and meaning which we are gradually finding out, but which we certainly do not make as suits our passing mood or present state or present felt need. And this conception, once reached, is one upon which we lean at every step in our efforts to make experience intelligible, and it is this that gives us our faith that the game is worth while.

Belief in absolute truth does not imply the belief that one has found the absolute truth, or even that one ever will. The idealist too is a modest man, and does not "affect omniscience," as Professor James puts it. He is satisfied if he can only keep moving on the road that leads in that direction. If now the question be asked, But when does one ever use this conception of the absolute truth, if in every concrete situation one is always forced to work with the imperfect tools that experience furnishes? the answer is, that it is used in precisely the same way that the similar conception of the fixed is used in the region of physical fact. The concept of the conservation of energy enables us to think the physical world as the same in and through all its changes. Here too one may say, no one ever found this energy that is conserved. In any concrete situation, one always finds specific cases of energies, nor could one ever tell what energy in the singular, and with a capital E, would be like.

One finds, in short, with regard to the physical world the same difficulty that one meets with in the wider region of philosophy; and again it may be said to be the antinomy of the Infinite and the Absolute, of the flowing and the fixed. The fixed easily becomes

an hypostatised abstraction, but none the less the conception of the fixed is one upon which one leans at every turn in one's effort to explain physical facts. And there is here too an interesting development which, as far as it goes, is closely parallel to the development of the similar concept in philosophy. This conception at first appears as that of an indestructible matter made up of hard atoms. Into such a fixed world it proves to be difficult, if not impossible, to introduce motion. This corresponds to the Eleatic Absolute. Then one attempts to conceive of the real physical world dynamically, and the concepts of force and energy supersede that of matter. But even these concepts prove to be not wholly free from the old taint, and so one now attempts to state the doctrine of the conservation of energy as meaning no more than this: that nature is uniform and dependable to such an extent that one can reproduce a given situation at will, and find always the same quantitative values, before and after, that existed in the original case. This is closely parallel to the development in idealism, as one passes from the earlier static type, first to the Platonic and Aristotelian types, and, later, to the modern types in which the Absolute is hardly recognizable any longer, and appears as a world of meaning, not separate from the several facts of experience but implied in them one and all, — the fixed order of worth in which all values are assessed. This order no one knows in its completeness; its existence we all presuppose.

Throughout the history of idealism runs the thought of the All-knower, the 'Man in the heavens,' the God standing within the shadow 'keeping watch over his own.' And the world which abides is simply this our changing world of experience as such a knower would know it. At first knowing is conceived as immediacy, as appropriation, as absorption in the object, after the analogy of sense experience, and then the Absolute is the mystic's Absolute, and it is hard, if not impossible, to get motion or change into this world. And the progress of idealism has been marked by an ever-increasing respect for the world of experience, for the Infinite. The real must be the real of just this world of fact, and it must make that world intelligible. One takes one's key from

what goes on in every science. There the fact of immediate experience is always merely the point of departure. It is not by staring at the fact, by immediately experiencing it, that one understands it, but by getting away from it in its immediacy, and reading its meaning in the light of all other facts that fall within the same field, and by reading the meaning of all other facts in the light of it. When one has got the particular fact in its setting and context, one has for the first time discovered its meaning and its reality. Similarly in philosophy the aim is ever to get the particular experience in its total context, and to attain unto vision in the light of the whole. The idealist is one who believes that there is such a total context, and that this total context exists in and gives meaning to every fact of experience, as every fact exists in it and contributes to its meaning.

But, after all, does not the old taint reappear here? Does not this system of truth, once for all realized, destroy the significance of change? If it does, it certainly calls for revision. I believe that it does so long as one is over-influenced by the incomplete analogy of the natural sciences. The remedy is then to be sought in conceiving the fixed not merely as dynamic, but also in the light of the categories of personality. The Idea must be carried up into the Ideal, as this is implied in personal association. Then change can become truly significant, for every person has his unique share in the creation of the ideal; it exists not without his sanction. It is some such revision of the basic concept of the Absolute that furnishes the central problem in modern idealism. And, this being the case, is it not true that humanist and personal idealist are 'twin brothers under the skin'?

But, whatever may prove to be the next steps in the development of idealism, in no one of its meanings has the conception of the Absolute been useless.

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THE CONCEPTION OF MORAL GOODNESS.¹

WHATEVER else may be involved in moral judgments, these attribute *moral goodness* to some object. Every moral experience apprehends such a property or set of properties as distinguishing the acts, persons, or institutions which possess it from those which do not. The ethical investigator must address himself to the task of purifying, generalizing, and defining the conception which is thus given. He must abstract or isolate it from its context and from its particular cases. To this task, strictly construed, the present paper confines itself. For the significance and conclusiveness of the results, the writer must rely largely on such suggestions as they will convey to a reader already familiar with the special problems of ethics.

The phrase, 'moral goodness,' is doubtless ambiguous in its connotation; were this not so, there would be no need of systematic ethics. Here, as elsewhere, linguistic usage is the rough guide to a truth which will certainly determine it more exactly, if indeed it does not substantially depart from it. For, with the exception of the philologist or etymologist, no scientist is engaged in the definition of words.

Again, moral opinion is doubtless conflicting; but this is characteristic of all opinion. The moralist, it is true, is peculiarly embarrassed by the quantity and variety of the opinion within his field. Here, as Socrates complained, all men account themselves experts. Concerning moral problems no man can escape making up his mind. Every deliberate act is virtually a moral belief; and most sentiment is moral opinion compounded with ardor and tenacity. Conversation and literature consist of little else than the criticism of life. This situation is not without its compensations; for here abundance of opinion signifies abundance of experience in available form. Hence no moralist can complain of the meagreness of his data. But, except in so far

¹Read before the American Philosophical Association, at the New York meeting, December 28, 1906.

as they may afford access to the experience upon which they were based, the moralist is not directly concerned with particular moral opinions ; and his results must in large measure demonstrate their falsity or inadequacy. The study of opinions as such is the special task of the psychologist, anthropologist, or historian. The moralist, like the physicist, constructs opinion, or standardizes a certain class of opinions on the ground of an examination of their objects.

That morality is a relatively complex phenomenon, is generally agreed. However much doubt may exist as to the exact meaning of moral goodness, certain general and distinguishing characteristics of the realm are matters of common sense. These characteristics make up a complexity which is attributed not merely to moral judgments, but to moral objects ; in other words, they define the meaning of moral quality as such, and not the meaning of thought, which has its own characteristic complexity whether the topic be moral or otherwise. It is understood that a pure mechanical system falls short of being a moral system, because certain essential elements are lacking. For the same reason a mechanical system is too meagre even to provide for the phenomenon of life. Although there are elements in a mechanical system which are doubtless not essential to a moral system, in their historical genesis these three realms, mechanical, organic, and moral, form an ascending order of complexity. A mechanical system must be complicated through the introduction of new elements and principles before an organic system is realized, and this system must be further enriched before it can constitute a moral order. Thus morality is superimposed upon life, as life is superimposed upon nature.

While the foregoing consideration affords us the best approach to an analysis of moral goodness, there is a formal factor in the situation that will serve to guide us and to test our results. It is significant that we cannot avoid employing a phrase rather than a single term for the representation of our central conception. Goodness is not necessarily moral, nor is morality necessarily good. Furthermore, it may be remarked that the modification of goodness by morality is not like the modification of morality

by goodness. There may be entirely unrelated senses of the term 'goodness'; and in any case moral goodness is only a subclass of goodness in general. Morality, on the other hand, contains three determinations which are systematically related to one another in a manner characteristic of the realm. Thus it is impossible to define moral goodness except in opposition to moral badness, and in a peculiar relation to moral indifference. In analyzing the essential meaning of moral goodness, therefore, it is necessary to modify the idea of goodness up to the point necessary for the construction of a system in which moral goodness is both distinguished from, and definitely related to, moral badness and moral indifference. We shall find that this successive modification coincides with the order of complexity already indicated.

Within a mechanical system it is clear that no objects or actions possess moral value. Whether they possess value in a more general sense, is a question that may for the present be left open. The terms of a mechanical system possess determinateness, and may vary in the degree to which they represent the total system; but these formal properties are in all likelihood values only in a derived sense. Determinateness is a value incident to the interest of knowledge, and representativeness is a value incident to the interest of art. When the term 'value' is applied to such properties apart from these relations, it is doubtful if that term retains any identical meaning. However, there can be no doubt of the radical alteration which is effected through the introduction of a physical organism into such a system. A physical organism reacts to mechanical nature in such wise as to persist and grow. This consequence is not accidental, but essential to organic action. The distinguishing mark of the organism is its systematic and determinative concern for itself. It is impossible to sunder the organism, in this sense, from what is commonly called its environment; for the organism is essentially constituted by its functions and not by its structure, and its functions cannot be brought within the spatial limits of its body, any more than they can be identified with the material content of that body at any given

time. In the more rudimentary organisms, such mechanical action as light, heat, or pressure, together with bodily states, is brought into a unity which acts in such wise as to persist and grow. This unity, which we may designate as an interest, is consciousness in the earliest phase of its natural genesis. Such interests may be empirically discerned, thrown into relief upon the background of mechanical nature. For reasons that will appear shortly, it is important to distinguish them as simple, undifferentiated, or exclusive interests. Physically or psychically, they are complex; but as interests, they are not further analyzable in that they contain no elementary interests.

An interest persists and grows through selection and rejection. In accordance with its actuating principle of self-conservation, it must deal differently with 'objects' according to their favorable or unfavorable bearing on itself. These two opposite forms of reaction distinguish two general groups to which reflexes, instincts, and feelings may be assigned: the group of liking and the group of aversion. But there is also a form of reaction, or a phase of one of the above forms of reaction, where neither liking nor aversion is appreciable. The object is *noticed*, but is held in reserve, subject to action when the occasion arises. The constituents of a simple system may now be said to possess a certain intrinsic value. In so far as the interest selects them or assimilates them to itself, they are good; in so far as the interest rejects them, they are bad; in so far as the interest contains but neglects them, they are indifferent. These are the values characteristic of a simple interest. Such a simple or exclusive interest is commonly known as a desire, preservation being the desire characteristic of the animal organism. We may, therefore, properly term such intrinsic values as have been described *desiderative values*.

But before examining these further, let us reconsider the mechanical environment. This realm now evidently sustains new relations; for it provides the material out of which interests are continually developing themselves. Mechanical action now bears upon interests. There is a new difference between the heat which is radiated through the interstellar spaces and the

heat which is absorbed by the earth ; the one is vitally indifferent, the other of vital concern. There is a new difference between moderate and extreme temperatures ; the one is favorable, and the other unfavorable to life. Such values may properly be termed 'material,' or 'potential,' since they are adventitious and not determining. Mechanism passively submits to life, differing in the degree of its availability or plasticity. Material value is also extrinsic ; for mechanism requires to be transmuted into another form before its value is realized. But material values are clearly more remote from moral values than are those which appertain to the simple interest. We must therefore take the simple interest or desire as the starting-point for our further analysis.

Were the desire the only type of interest, there would yet be no moral goodness or obliquity, and no meaning in moral approbation or reproach. It is quite possible to conceive such a realm ; indeed, it is through such a conception that animal life possesses its homogeneity, its freedom from moral liability. A variety of organisms, or even of vitally connected groups, in which each unit is governed solely and regardlessly by the instinct to preserve itself, a 'state of nature' such as Hobbes described, manifests vicissitudes of fortune and types of adaptation, but does not contain any moral situation. This appears only with a new type of interest, supervening upon simple elementary interests, and providing for their control. We may conceive this alteration in the status of interest in either of two ways : either as the *differentiation* or as the *affiliation* of simple interests. In the actual genesis of morality, these processes blend indistinguishably, but it is useful to abstract them.

The differentiation of a simple interest may be observed in the appearance of special interests within the organism. Activities which were interested only in behalf of the preservation of the total organism become interested in their own behalf ; or special functions come to be determined by the law of their own persistence. Meanwhile, however, the original interest does not disappear. In the case of the physical organism, such special interests are naturally possible only when they are regulated by

the general interest of self-preservation. The consequence is that the general interest assumes a new form. The special interests must have been qualitatively distinguished; that is, they must contain discriminated ideas or objects. The general interest thus becomes a higher interest; that is, an interest embracing and organizing elementary interests. In short, the simple interest in the preservation of a single vital organization is replaced by an interest in the maintenance of a group of coördinated interests. But there is an intermediate stage in this construction which is of sufficient importance to warrant special mention. Elementary interests may be integrated only so far as is necessary for a recognition of their reciprocal dependence; in other words, each may be so far considerate of the others as is necessary for its own persistence and growth. In this case the elementary interests in their severalty remain the ends of action, while the unity appears only in their reciprocity. Such a coördination of interests is commonly known as 'prudence,' and is to be distinguished from 'idealism,' in which the group of interests becomes a new interest of a higher order. Prudential action may be represented by the grouping of interests, thus, $ai + bi + ci$; idealism by the constitution of a group interest, thus, $I[ai + bi + ci]$. In order that such a group-interest shall be maintained, the constituent interests must not only assert themselves, and thus contribute to the content of the group, but also limit and direct themselves in such wise as to be consistent with the group. The higher interest is both the resultant and the law of the subsumed interests. The characteristic moral situation is now realized. Each subsumed interest possesses moral value in that it bears upon the higher interest; and according as that bearing is favorable, unfavorable, or negligible, the subsumed interest will be morally good, bad, or indifferent. Each subsumed interest is now subject to a joint determination; that of its own persistence, and that of the persistence of the higher interest. When the two forms of determination are coincident, the subsumed interest is morally good; when the lower order of determination overrules the higher, the subsumed interest is morally bad; when the higher order of determination overrules the lower, the subsumed interest is in the

act of becoming morally good. Or one may apply moral predicates to the higher interest itself. Thus, when the higher interest pervades the subsumed interest without encountering resistance, the whole may be said to be in a state of moral goodness, or of spiritual health; when the higher interest is without honor in its own country, suffers violation and loss of prestige, the whole may be said to be in a state of moral badness; when the higher interest is engaged in assimilating the lower interests to itself, in forming them to its own image, the whole may be said to be in a state of moral development.

But we must return again to the simple interest in order to understand the second type of moral genesis, that which takes place through the affiliation of simple interests. Let us suppose two organisms, determined simply by the instinct of self-preservation, to come into contact externally. In so far as they merely bear upon one another, serve, injure or indifferently affect one another, they compose a desiderative, but not a moral system. Each possesses for the other only material values analogous to those of mechanical nature. But just as two bodies approaching one another from remote spaces come to revolve about a common center of mass, so two interests brought immediately into the relation characteristic of interests, produce a mutual interest of a higher order. Such mutuality of interest may be distinguished, first, in its merely reciprocal, or prudential form; second, in its synthetic, or ideal form. Before such a higher interest can truly be said to exist, it must be elicited from each elementary interest. This occurs naturally through the fact that each elementary interest, if it is to react effectively to the other, must recognize that other as an interest. Each interest acquires a higher capacity through first adding itself to a similar interest, and then subordinating itself to the interest of the sum. When this has taken place, the situation is parallel to that which is reached through the process of differentiation described above. Elementary interests will now possess moral properties in relation to the higher interest in which they now unite; and, according as they are coöperative, hostile or negligible in relation thereto, they will be good, bad, or indifferent.

If our analysis is to be complete, we must make one further construction. A higher interest of the type already defined may be said to constitute a moral unit; that is, it is barely sufficient for moral values. But there is a significant implication which is necessary for the elucidation of the more complex moral relations which are characteristic of society. This implication appears when we conceive moral units to be themselves coördinated. Within such a system there arise higher moral interests such as civilization and the community of moral selves. The priority of such higher interests over the moral interests which enter into them, is not, however, formally identical with the priority of the latter over their constituent simple interests. For simple interests may be said to be morally plastic, and are properly to be regarded as the material of the moral interest, as mechanical nature is the material of the simple interest. Moral interests, on the other hand, possess an inalienable moral validity; in its formal determination, each constitutes a moral finality. In consequence of this, if they are to be modified, this must take place through affecting the material of which they are formed,—as through the arousing of latent interests or the eliciting of new interests. The principle limiting the constraint which may properly be put upon moral beings is the principle of justice. Through the principle of justice, moral beings compose a system within which the members are subject to only two kinds of constraint: in the first place, the forcible repression of such members as disqualify themselves through violation of the principle of the inviolability of a moral being; and, in the second place, the assimilation of members to higher ideals through appeal and persuasion. In short, the constitution of a moral interest effects a radical alteration in life, transforming plastic interests into free ideals.

We may summarize the foregoing analysis by enumerating its constructive stages. The interaction of interest and mechanical environment involves material values; the inherent structure of a simple interest, desiderative values; the differentiation of a simple interest, or the reciprocity of two or more simple interests, involves fundamental moral values; the reciprocity of moral interests, justice and free ideal values.

Now all this, doubtless, seems both irrelevant and dry. It is the somewhat thankless task of analysis to strip experiences to their strange and unlovely conceptual framework. The harder the thinking, the further it removes us from the brilliant and engaging scene of life. The poor abstractions of ethics are a sorry substitute for the dramatic play of concrete morality. Indeed, the only justification of analysis lies in the possibility of rehabilitating the concrete with its structure accentuated and its basal principles invigorated. If the distinctions which have been made are true and essential, it should be possible, after thus isolating them, to recognize them in the context of common experience.

Nature, as interpreted for common sense by the inorganic sciences, presents a spectacle of impassivity. There is neither fortune nor calamity, neither comedy nor tragedy, because no claims are made. Redistributions of matter make no practical difference, because there are no interests at stake. There is no object of applause or resentment, because there is nothing in whose behalf such sentiments can be entertained. But with the addition of life, the whole situation must be reconstructed. Nature has become another system with a new center. The organism inherits the earth, and the varieties of nature become the resources of the vital interest. The mark of life is partiality. A living body makes certain requisitions upon nature, maintaining itself through the assimilation of material to its own organization. The vital interest acts upon the environment in its own behalf, thus transmuting material existence into value. The realm of natural life, embracing innumerable desires externally related and struggling for the possession of material resources, constitutes a new order in which good and evil abound. The sympathy aroused by life in any form and the inevitable inclusion of animal life within the sphere of human interests, lead to a confused interpretation of this order. But common sense entertains no serious doubt as to its status. Life here involves no issues of right and wrong. There is no provision for the characteristic moral questionings: Should this passion be suppressed, limited, or fulfilled? Is this individual, bent upon his own end, good in the broader bearings of his life? There is no moral inhibition,

no moral authorization of action. Morality arises only when there is such dividing and compounding of interests as to permit of some interplay of part interests and whole interests, of exclusiveness and considerateness. The moral being appears as one divided against himself; as one uniting interests into a self, varying from a desultory collection to an absorbing purpose; or as one brought to recognize the claims of his community. The new order provides for duty, for praise and blame, for criteria of moral qualities and degrees, because the higher interest possesses a priority of claim and constitutes a basis for criticism. Thus generous, disinterested, self-consistent, devoted, principled action is good; good both for what it contributes and for its willingness to contribute. All action within such an order recognizes a higher claim into which its private claim is incorporated, a completer interest in whose behalf it may be determined. Finally, in this submission of interest to interest, the moral will is confronted with itself, and called upon to recognize its identity. In the constitution of a just society, the natural genesis of morality terminates. Growth in goodness is henceforth growth in sensibility, knowledge, art, and religion. A moral civilization consists in the unfolding of impartial, hospitable, disciplined ideals. The moral basis of ideals is justice; hence the ideals which morality will support must be those in which moral beings may be brought to unite, not by repression or forcible constraint, but through the free cultivation of love and enlightenment.

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THE CONCRETENESS OF THOUGHT.¹

AMID the disagreements of present philosophical discussion (and these are neither few nor unimportant) there stands out one proposition on which all parties are agreed. Whether we are radical empiricists, pragmatists, or transcendental idealists, we all agree that experience is the only reality and that experience must be the foundation of a philosophical system. Moreover, we agree that experience is real precisely in proportion as it is concrete, and that the attempt to explain all experience in terms of any one part is a false philosophical method. True, we do not by any means agree in our definitions of concrete experience. On the contrary, one might well say that this is the 'locus' of present philosophical discussion. The conceptions of concrete experience and the relation of thought to this experience are precisely the points at issue between the different schools. The present paper is an attempt to outline one point of view from which the problem may be attacked. Its thesis may be expressed provisionally as follows: Rational thought is a process not of abstraction from concrete experience, but a process of interpretation, in which there occurs a progressive rationalization of experience and through which the indefinite and fragmentary becomes definite and coherent. By means of this interpretation, experience is at once differentiated and integrated. In other words, thought is essentially a process of concretion, not a process of abstraction from an experience which, as given, is already concrete.

Let us begin with the definition of concrete experience. Many phrases are now in vogue to express the nature of the concrete. It is the 'given,' or it is experience 'taken at its face value,' plain unqualified actuality, the bare fact precisely as we feel it, and not as we afterward think about it. There can be no doubt that these phrases are descriptive of an aspect of our experience. The con-

¹ An abridgment of this paper was read before the American Philosophical Association, December 27, 1906, at Columbia University.

crete is the immediate ; it is that which is given and which we in no sense make. It is reality forced upon us and ready to our hand. In short, the immediate is knowledge in its categorical aspect, in which we affirm something to be true of reality. It is the assertion that the given is real, though we may not yet know precisely in what reference it is real, or what changes may be necessary in the future to define this reality.

Immediacy, then, is an undoubted aspect of the concrete ; but it is important to notice that it is merely a single aspect, the mere 'thatness' of experience. It is an attribute which all our knowledge possesses, though the application of any particular judgment to reality may be more or less direct. Nevertheless, as a single aspect of experience, it is clear that immediacy is not, in itself, a sufficient description of the concrete, for it leaves experience without a definite content. But the concrete is just that which has the richest of all possible contents, for it is of the real that we affirm every significant idea. The real or concrete is the individual, that in which we find the maximum of many-sidedness.

It is, of course, impossible here to take up the problem of individuality. It is necessary, however, to insist that individuality does not mean abstract isolation from all other beings. Even bare unlikeness (and this is surely the lowest form of individuality) is a relation. It rests on a judgment of comparison and establishes a logical connection between the two things compared quite as much as if the judgment were one of identity. Exclusion or isolation itself rests on the establishment of a complex system of relations, provided the isolation be real. It is mere confusion to equate the unrelatedness of naïve experience with actually established isolation. The first is the mere absence of relations because the whole experience is vague and indefinite ; the second is a peculiar kind of relation (a relation of negativity) and rests on comparisons which may involve a greater or less extent of experience and more or less systematization.

If we consider a typical case of individuality, the historical person, we find that we have at once the maximum of isolation and the maximum of relatedness. To be an historical person means that one stands in certain relations to an indefinitely large

number of persons and events in one's past, present, and future. The number of such relations is infinite, for they ultimately involve all human society and implicitly all reality. Apart from these relations the individual is nothing, and only by the establishment of them can we define the individual at all. In general, therefore, it may be said that individuality consists in occupying a place in an organized system. History is preëminently such a system, and in history we find our most truly individual phenomena. Just because history attempts to present a system of events which has teleological unity, in which every part stands in a functional relation to the whole and to all the other parts, the units of history are true individuals. If the wholeness of the system were to disappear, the individuality of the parts would be obliterated at the same time; they would descend into vague relationlessness. Relation and system, therefore, are necessary conditions of that individuality which is universally attributed to the concrete and real.

On the other hand, it is equally clear that rational system is the *sine qua non* of all generalizing thought. We cannot universalize unless experience presents to us real identities which we can grasp and express in the form of laws. When the scientist attacks a problem, he invariably assumes that there is a rational explanation to be found. If he did not make this assumption, he could not take the first step toward a solution. The same assumption is made universally in practical life. The plain man is the last person in the world to doubt that his conceptions are able to deal with reality, and this firm conviction has no other logical basis than the postulate that experience is implicitly rational from beginning to end, that it is a unified system in which events occur in a rational manner.

Both individuality and universality, therefore, appear to involve the conception of organization and system in experience. Without such a system individuality is impossible, because individuality means always a certain sort of relation within a unified whole. At the same time, universality is equally impossible, because conceptual thinking cannot take place unless generalization can at least partially grasp real principles of synthesis. But it is

equally clear that both individual and universal are necessary to our conception of a systematic experience. Without the individual, as has many times been shown, the universal is a bare identity about which nothing can be predicated. Without the relational aspect of experience, on the other hand, the totality disappears entirely. The two are absolutely correlative, and the failure of a philosophical theory to do justice to either cannot fail to leave the other imperfect. Accordingly, in the concrete experience to which we attribute reality, both must find adequate acknowledgment. Concrete experience must unite what is perfectly individualized with what is perfectly unified; it must be an organic whole in which complete differentiation is combined with complete integration. In a word, there is no concrete reality short of the Absolute; for only there can we assume that the immediate involves all its relations and that the abstractly mediated has put on immediacy.¹

But this ideal has clearly led us to a paradox; for the concrete in this complete sense obviously cannot be given to a finite being, and it appears as if, in attempting to equate the concrete and the real, we had put them outside of experience altogether. At most, such a reality can play a part in our finite lives merely as an ideal which we progressively realize. Its sole reality for us is that of an end toward which knowledge is directed and toward which we make a real advance. For our human experience, therefore, the Absolute is nothing except an immanent ideal of perfected rationality. Here, however, the all-important question arises, whether an ideal of such concreteness actually exists in our experience and whether it is capable of progressive realization. Is such an ideal organic to the experience we actually have, or is it merely an *ignis fatuus* which the idealistic philosopher pursues to his own destruction? Is our thought of such a character that it renders our experience progressively more concrete, in the sense

¹ Cf. Professor Bernard Bosanquet's discussion of the question, "Can Logic Abstract from the Psychological Conditions of Thinking?" *Proceedings of the Aristotelian Society*, N. S., Vol. VI, 1905-1906, pp. 237 ff. Note in particular the distinction between the real or rational concrete and the concrete of confusion, pp. 264 ff. I ought also to express my indebtedness for the point of view of the present paper to the same author's *Logic*. Cf. especially Vol. I, chs. v and vi.

in which the concrete has been defined? In a word, is thought a function of concrete rationality by which experience is brought nearer to ideal organization?

There can be no question that experience, as we actually have it, is in some sense concrete. At all events, it is the best we have, and admittedly our problem concerns nothing except experience. Now it will easily appear, I think, that the truth of our actual experience lies in just the fact that it is already partially organized. In this partial organization we have some adumbration of that ideal experience in which we must assume the truth to consist. In other words, it is wholly fallacious to oppose the given, actual experience 'as it comes' to conceptual thought. Experience, however 'pure' it may be, is always instinct with the results of previous thought; the immediate of to-day is that which has been mediated in the past. If this were not the case, conceptual thinking could never by any possibility get a foothold in experience. A multiplicity of unrelated objects, no matter how great their number and diversity, can never present a logical problem to thought. The only problem which thought can solve is one set by an experience which recognizes its own contradictions; and such an experience is not one in which thought relations are absent, but which is in a state of partial but incomplete unification. Nor can we escape from the difficulty by supposing that the problem of thought is set by an unsatisfied desire or a practical tension in experience. A need may be the stimulus which makes us think, but *qua* need it cannot set a logical problem. Even the need for consistency is not itself a problem for knowledge; only the inconsistency which gives rise to the need can be such a problem. Knowledge, therefore, grows out of a partial truth into a more complete truth, from partial congruity (but also partial incongruity) to more complete consistency. Our experience, as we now have it, is real or true; but it is true only by virtue of the fact that it is partially rational, or, in other words, partially concrete. When it becomes more rational, more thoroughly integrated and at the same time more individualized and differentiated, then it will be more concrete and real.

In the language of logic, then, experience invariably has the

form of a judgment ; that is, it is essentially a unity in difference. It is always partially organized and capable of indefinite progress toward more complete organization. At the same time it is never a blank identity, but is an integration of differences ; that is, a synthesis of individuals. Moreover, it can be shown that the progress of thought always leaves to experience this character. In other words, thought is not merely a process of abstraction from the concrete, but is the function by means of which rational organization is furthered. Thought does not leave behind the concrete and, in the effort to compress experience into manageable formulas, pass to greater and greater abstraction. On the contrary, the abstraction which thought undoubtedly uses is invariably a means and never the end of thought. It is the instrument by which thought is able to attain its goal of concrete rationality.

I have no disposition whatever to underestimate or belittle the part which abstraction plays in thinking. It is no doubt true that all conceptual thinking is abstract, and much more is it true that those great conceptual systems which we call sciences are abstract. Some of them are in the highest degree abstract. Moreover, they are scientific for that very reason ; they have laboriously defined a standpoint from which to regard experience, and they properly insist that for their purposes all experience must be treated from that point of view. To admit other aspects of experience, even though they be admittedly more concrete, is to desert the point of view and thus to defeat the aim of science. In this case, therefore, concreteness would be merely bad science, because it would introduce something irrelevant into the conceptual system at which the science aims. But all this may perfectly well be admitted, while we maintain that the abstraction is not an end in itself, but is a necessary means of attaining a more ultimate end. Nor is this end to be conceived as merely practical ; the ideal of knowledge itself cannot be expressed in terms merely of abstraction. On purely logical grounds, it may be shown that the abstractness of science is merely a means to a more complete rationality within experience as a whole.

In the last analysis, abstraction is nothing but the division of a

task, and in this sense any determinate thought is abstract. We concentrate our attention on certain aspects of experience in order that we may devote our energies to a task that falls within a manageable compass. In this sense, abstraction is a universal phenomenon of human life, appearing everywhere in our most ordinary activities. For the merchant, the persons who enter his store are possible customers and very little else ; it is this aspect of their many-sided personalities that concerns him. The abstractions of a sophisticated science differ from this practical abstraction only in the accuracy with which the point of view is defined and the pertinacity with which it is held. Since we cannot deal with all our experience in a lump, we are forced to attack it piecemeal, and this process is abstraction. But nowhere is the abstraction more than a means of simplifying the problem. Even in the abstract sciences, it is not the abstraction which constitutes knowledge. Knowledge in science, as everywhere else, is a matter of logical consistency. What the scientist wants is a self-consistent body of concepts, and in the possession of such a system his knowledge consists. He is trying to do justice to the unity of experience from his own particular point of view. The abstraction as such tells him nothing ; only the unification of his data adds to his knowledge. In the same way, the making of the abstraction can be justified for purposes of knowledge only if the results which the scientist gains add to the rationality of experience as a whole. There would be no purpose in making the abstraction, if it did not enable us to attain knowledge which is to some extent real and true ; and to be real and true means nothing except that partial knowledge takes its place in the rational totality of experience as a whole.

The concrete fact, therefore, is at once the starting-point and the goal of thinking ; but at the goal we find the fact interpreted, that is, enriched and individualized by its passage through thought. Not only does the generalization proceed from facts, but it invariably turns back upon the facts and redefines them. The particular as actually experienced thus becomes a new particular, when its conceptual relations have been made explicit. A scientific law is significant solely because it is a generalization

of certain facts, but it is equally true that the fact has truth only by virtue of its relations within a universal. The particular never exists except in a certain context of relations, and if the context be changed, the particular itself is *ipso facto* changed at the same time. A scientific law, therefore, does not merely resume a multiplicity of individual events; it interprets them and gives them a new and richer individuality by defining them in relation to each other. Without such relations, the individual would remain a bare isolated 'that' without content.

The end toward which thought directs itself is therefore the complete interpretation of experience. By this means, the Absolute, the ideal of rational unity, is immanent in our experience and organic to it. Thinking issues in knowledge and knowledge is an experience which realizes in part its implicit wholeness. Abstract conceptual thinking, the one-sidedness of the sciences, is the means by which we attain to concrete reasonableness. The concepts of science are instrumental in the attainment of that one-sided logical unity at which the science aims, and they derive their logical validity precisely from this fact. Similarly the science as a whole is true solely because it is capable of interpretation as a rational part of a concrete experience. One science may more completely do justice to the nature of the concrete whole than another, and in so far as this is the case we may properly speak of degrees of reality among the sciences. But every science, even the most abstract, draws its logical validity from nothing except the fact that it does partial justice to the nature of a perfectly organized experience, that it introduces into human experience some part of that total organization which is truth. In this sense, therefore, we may hold an instrumental theory of the sciences which is genuinely logical and does not rest upon the introduction of extraneous practical ends.

If this view of the relation between thought and experience be justified, considerable light is at once thrown upon certain current philosophical problems.

I. From this point of view, a 'pure' experience, in the sense of an experience from which thought is excluded, is nothing less

than a contradiction in terms. If experience exists at all, it is already implicitly in the form of a judgment. It is capable of giving rise to logical problems, and this means that it is partially organized and capable of further organization. Without the possibility of progressive organization, experience would become unrecognizable; it would lack precisely those qualities which, from the logical point of view, it must possess in order to be an experience. 'Pure' experience is either an abstraction or a fiction. If it is assumed that the immediate, extra-rational character of our experience is merely one aspect of it, the 'that-ness' of experience, so to speak,¹ there is no reason why this position should be combated; but it is clear at once that such a definition reduces pure experience to an abstraction, and that it is therefore impossible to equate pure experience with reality, unless one is willing to give up the fundamental position that the real is also the concrete. If, as is ordinarily the case, it is assumed that at some stage of development, or at some time, one's experience is actually 'pure' in the sense that it is a mere datum with which thought has not yet concerned itself; then pure experience is a fiction. No experience is ever given which does not contain incipient logical distinctions, and which is not therefore capable of developing explicit logical consistency or inconsistency. The development of such distinctions within the unity of a single experience is precisely what we mean by thinking about that experience, and the validity of our thought rests on the fact that the distinctions we make in thinking are inherent in the experience itself. Otherwise they could be no more than artifacts and would necessarily remain external to the matter in hand. Surely we always assume that the space relations, for instance, with which we deal in geometry are indigenous to the space of our every-day life. Of course no one ever experiences mathematical space in its purity, for this is an abstraction made to suit the convenience of one of the most abstract of all sciences. But it is equally certain that such an abstraction is far from arbitrary. The abstraction consists in the artificial isolation of certain real relations within our experience in order to make

¹ Cf. Professor James, "The Thing and its Relations," *Journal of Philosophy*, Vol. II, pp. 29 f.

them the subject of a consistent logical development at the hands of a separate science. The propositions of geometry are real facts for no other reason than that they are thus at home in our experience, that they are bone of our bone and flesh of our flesh. Our experience is of such a kind that all the distinctions of geometry develop within it as a natural logical growth. If this were not the case, it is impossible to see how science would have any experiential application, either theoretical or practical.

The view that we are here combating, that real experience must be in the form of a datum, seems to be at bottom a relic of the psychologism that was an essential character of the traditional English empiricism and which clings persistently to those who are deeply imbued with its spirit.¹ How often does one find it tacitly assumed in current discussions that the psychological process is somehow a real fact, while meaning is in a way a derivative and secondary development from it?² Because the process is a structural element, while the meaning is always a reference or a function, the former seems somehow, for those who have once got a firm grasp on the psychological point of view, to possess a *quasi* tangible reality which the meaning can never attain. But if we leave out of account the vague substantive feeling that we naturally associate with the psychical process, how do the two things compare in point of concreteness? We may readily grant that both are abstract, that each involves an abstract point of view from which experience is regarded. But if each abstraction is consistently carried through, there can be

¹ One ought to except Professor Münsterberg, who has clearly not been led astray by the English philosophy. His view avowedly rests, however, on another form of subjectivism, viz., the idealism of Fichte. It is sufficiently clear that all the criticisms of pure experience made above apply to any definition of experience which assigns a subordinate or derivative place to rationality. Whether the experience is described in terms of essentially irrational sensory data or irrational acts of will is a matter of indifference.

² Cf., as a single example, Mr. F. C. S. Schiller's discussion of the question, "Can Logic Abstract from the Psychological Conditions of Thinking?" *Proceedings of the Aristotelian Society*, N. S., Vol. VI, 1905-1906, pp. 224 ff. Note the following sentences: "I meant [by 'psychological conditions of thinking'] the most concrete thing imaginable, the psychical process in its all-inclusive activity. I called it 'psychological process' merely to indicate that it was what psychology seems to aim at describing in its integrity and as it occurs" (pp. 257 f.).

practically no question that the point of view of meaning does more complete justice to our total experience than that of psychical structure. An elementary logical problem, like the formal validity of an argument, is comparatively lucid even to the man in the street, while he would probably find it much more difficult to understand what was meant by the analysis of a merely psychical complex even of the simplest kind. In a word, the psychical process, in the strict psychological sense of the term, is a conceptual instrument of a highly abstract kind which is directly applicable nowhere except within the limits of the science by which it was framed. To equate psychological process with the 'most concrete thing imaginable' is simply confusion worse confounded.

It is surely the irony of fate that our most insistent and determined 'functionalists' and 'instrumentalists' should have been caught in the snare of the 'given.' When truth is defined as merely that which works, or as that which is instrumental in satisfying a felt need, or as that which looses a functional tension in experience, it seems a trifle incongruous to find reality (with which the definition of truth might appear to be pretty closely related) defined as that which is merely given, as a datum about which nothing can be said without translating it into conceptual, and hence to some extent unreal terms.¹ In other words, though truth is always relative to some particular situation, and hence is always instrumental, reality, which is commonly supposed to measure truth, gets its entire definition from the fact that it is merely what occurs and has never been defined from any particular point of view. No doubt there is at work here a fundamentally sound though misguided philosophical instinct, viz., the apprehension that relativism or instrumentalism *ad infinitum* leads nowhere except to scepticism. Accordingly, pure experience, so far as it has a logical function, is merely a form of the much despised Absolute. Because our knowledge cannot be relative without end, these thinkers assume that it must some-

¹ Cf. also the anomalous fact that Professor Münsterberg, the arch-instrumentalist, has based his classification of the sciences not on instrumental but on ontological distinctions.

where show itself as a pure datum which, as an isolated particularity, stamps that knowledge as definitively true or false. In short, we have here nothing more than a repetition of the fallacy which lay at the root of the pre-Critical theories of knowledge, whether empirical or rational, viz., the attempt to find reality once and for all in some single fact or aspect of experience, either in the datum of sense or in the rationally intuited axiom. But if the real is the concrete and the concrete is nothing short of an experience completely rationalized, then clearly nothing can be more fallacious than to say of reality 'Lo here!' and 'Lo there!' Truth is the whole, and anything short of the whole, any single datum or single principle, must of necessity fall short of the complete truth. The principle may embody the truth in so far as it is an adumbration of the ideal totality, but just in so far as it is isolated from its context in experience, it must cease to claim for itself absolute truth.¹

II. It follows as a corollary that, along with pure experience, the much debated distinction between reflectional and pre-reflectional thinking must also be given up.² So-called pre-reflectional thinking sets the problem for reflection, and this problem, when explicitly put, always takes the form of a logical inconsistency. Reflectional thinking takes up the problem and solves it, and the solution always means the reintroduction of logical consistency into experience. Where, then, is the distinction in principle between the two? We are not concerned, of course, to deny any of the actual differences between the two sorts of experience which, for convenience, may be described as reflectional and pre-reflectional. We would maintain, however, that these differences are not relevant in the field of logical theory. Logic is not concerned with a description of those intellectual short-cuts which habit and training, for example, introduce into our thinking, or of those *quasi* instinctive judgments which we have never had occasion to elaborate and criticise. However much these mutilated forms of reasoning may differ in actual content from explicitly reflectional

¹ Cf. Professor Ernest Albee's discussion of the relation between constitutive and regulative principles in "The Significance of Methodological Principles," *THE PHILOSOPHICAL REVIEW*, Vol. XV, pp. 267 ff.

² Cf. Professor Dewey, *Studies in Logical Theory*, pp. 43 ff.

thinking, or however important for our mental economy may be the power of thus abbreviating our intellectual functions, it still seems clear that the logical validity of non-reflectional thought rests on no different grounds from reflectional thought. In order to test a judgment which we have customarily made without much reflection, we have no course to pursue except to develop the implications that are latent in that judgment; that is, to bring it into logical relation with some accepted system of judgments and thus determine its congruity or incongruity with the system. The system concerned may be more or less definite and more or less inclusive. That is, it may be merely the more or less systematic body of knowledge about a subject that the average man possesses, or it may be a highly developed science; it may be knowledge of a narrow field, or it may be coextensive with the whole range of our experience. In any case, however, the truth, here as everywhere, consists in the inclusion of an isolated judgment within an organic body of knowledge, and hence, so far as logical theory is concerned, the case of non-reflective judgments does not differ in principle from any other judgments.

Moreover, reflectional thinking is a reinterpretation of the principles by which naïve experience was organized. Nothing can be more arbitrary than to assume that unreflective or 'pure' experience is constituted by a system of principles which are somehow different from the principles with which reflective thought works. Thought is merely a reconstitution of experience, a process in which the constitutive principles (and therefore the whole experience) are developed toward greater definiteness and coherence. It is fundamentally false to assume that there are certain principles which lie outside the process of this reflective growth and which are therefore fixed. Even such very general principles as causality and teleology are always changing their connotation with the progress of scientific and philosophical thinking; they have a strictly instrumental value as means of rationalizing our experience, and are therefore constantly being reinterpreted as the experience within which they have their place grows and expands. Now this reciprocity between reflective and non-reflective thinking surely involves their identity as

regards essential logical nature. Accepted constitutive principles of experience are constantly growing by means of reflection, and the tentative principles of reflection are constantly being accepted as modifications of the essential framework of experience itself. The reflective thought of to-day is the constitutive thought of to-morrow. Both are in principle the same, and the growth of knowledge involves at once the making explicit of what is implicit in naïve thought, and the making implicit in immediate experience of what is explicit in reflective thought.

III. If logical thought is really a process of concretion, as we have tried to show it to be, it follows that no extra-logical factor such as feeling is required in order to attain concrete individuality. According to the view of Mr. F. H. Bradley,¹ thought essentially involves the separation of a 'that' and a 'what.' The subject of the judgment is nothing short of the whole of reality, and it is the function of the judgment to predicate of reality a significant idea. But the predicate can never be entirely equivalent to the subject; there is always some discrepancy between the ideal content and the reality which it qualifies. It is in precisely this discrepancy that the ideality of thought consists. If the mere idea, the 'wandering adjective,' were to gain actual existence, truth and thought would have vanished into a higher reality. Accordingly, from this point of view, the ultimate synthesis of subject and predicate, of reality and thought, must take place through the medium of an extra-logical function which can best be conceived as analogous to the immediacy of feeling. It is, of course, assumed that this feeling is hyper-logical and not a mere return to the primitive wholeness of the datum.

But is this a fair representation of the nature of rational thought? Does the judgment merely operate externally upon reality by labeling existence with a non-existent adjective? In a word, is thought abstract in the sense that its qualification of reality must by some inherent necessity fall short of complete individuality? If the preceding analysis of the function of abstraction in thinking is accepted, these questions may be answered in the negative. The difficulty seems to lie in the fallacy contained

¹ *Appearance and Reality*, ch. xv.

in the following argument : Because judgments are actually abstract, *i. e.*, because they deal with a determinate part of reality, therefore the function of judgment is essentially a process of partitioning the real and hence cannot attain concrete totality. Or, in Mr. Bradley's terms, because in judgment we qualify reality, which is always more than appears in any single judgment, with an adjective which, as a determinate meaning, is less than all-inclusive, therefore it is an essential moment of judgment to maintain the inequality between the two ; if the inequality should disappear, judgment would vanish with it. But this is not necessarily the case. If judgment is conceived not as an adjectival qualification of a previously undetermined reality, but as the expansion and interpretation of an already qualified experience by a process of logical growth, the difficulty disappears. The new qualification is not a 'wandering adjective' to be attached to reality *ab extra*, but is a development of the substantative reality itself. The judgment has merely brought to light certain relations latent in the experience ; it has not superadded an ideal content to an existence already definitively real. The fact that some, or even all, judgments deal with less than the whole of experience does not justify the conclusion that any effort to express the totality of experience is necessarily incompatible with the nature of judgment. On the contrary, from the point of view of the present paper, the hope of solving, by a hyper-logical feeling, an essentially rational problem which has been defined as inaccessible to thought must be regarded as an *ignis fatuus*. If the judgment is a function of concrete organization by which our finite experience approximates complete rational unity, it is clear that this rational unity itself cannot be conceived under any other analogy than that of judgment. The introduction of 'feeling,' even though defined as hyper-logical, merely adds a new difficulty to the problem by neglecting that form of unity in difference which is the essential mark of all rational thinking and which appears to be absolutely essential to any fruitful conception of synthesis whatever.

IV. Last, and perhaps most important, the admission that thought is a function of concrete organization implies a definite

conception of the nature of reality. From this point of view, it is fundamentally an error to look for reality in a given experience which is not rationally organized. This is to attack the problem from the wrong end. Reality lies not back at the beginning of experience, in an experience which has never suffered the contamination of thought, but forward in the ideal which we are trying progressively to realize. Present experience is undoubtedly real ; it is all the reality of which we are possessed or of which we can now have any knowledge. But it is real because rational thought is immanent in it, because it has reached a stage of partial organization. A perfectly rationalized experience is the ideal at which the search for truth aims, and such an experience is the absolutely concrete and hence the absolutely real. Only in this ideal of an absolute experience, in which both the universal and the particular are at once satisfied, can we hope to find metaphysical reality. And the instrument by which this reality is made organic to our actual experience is a concrete thought which uses abstraction only in the progressive realization of such an ideal.

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THE THEORY OF GOD IN BOOK Λ OF
ARISTOTLE'S *METAPHYSICS*.

THE present paper is an impression of those sections of the Eleventh Book of the *Metaphysics* in which Aristotle treats of the nature of God. The passages with which the comment is concerned follow upon an argument in which Aristotle seeks to show that both the fact of motion as apparently involving an infinite regress, and its nature, definable alike in alteration and locomotion as a transition from the relatively potential to the relatively actual, are ultimately explicable only on the assumption of a first, absolutely actual, and unmoved cause.

The description of the nature of this prime mover is given us by Aristotle in Sections 7, 9, and 10, of Book Λ. "Upon such a principle," he proceeds in Sec. 7,¹ "depend heaven and nature. Its life is like that best life which we for a brief space sometimes live. This life it lives eternally (which is beyond our power). And the reason that its life is such is that its very operation is pleasure. Hence it is that consciousness, perception, thought are pleasurable to the highest degree, and so hopes and memories. But the absolute thought is of the absolutely best, the highest thought of the highest object. The intellect thinks itself in grasping the intelligible, since in the act of touching and knowing its object it becomes intelligible. Therefore the intellect and the intelligible are the same. For that which can receive the intelligible and essence is the intellect, and its operation lies in possessing the intelligible. It follows that the object rather than the power of thought is that which is divine in the intellect, and that the contemplation thereof is supremely pleasurable and good. If, then, that happiness which is ours sometimes is God's always, it is a marvellous thing; if a greater happiness, it is still more marvellous. And this is the case. Life also is his, for the operation of the intellect is life, and he is that operation; and his operation of reason in and for itself is life supremely good and

¹ *Met.*, 1072^b 14 *et seq.*

eternal. We say, then, that God is living, eternal, supremely good. Hence life and existence continuous and eternal are God's, for God is these things."

In Sec. 9 the argument is further developed. Certain difficulties at once arise, Aristotle tells us, regarding the conception of this divine intellect. It must think of something, else it is no better than a man asleep. But if it thinks of something, of what does it think, and after what fashion? Clearly a divine intellect cannot think now about one thing and now about another. It can think only of what is most divine and lofty, and this steadily "without change or shadow of turning." Moreover, the essence of such an intellect must be the very operation rather than any mere faculty of thought. Were it not, it might conceivably weary of thinking, and in any case would find the justification of its operation in the object of its thought rather than in itself.

For all these reasons, Aristotle concludes that "the intellect thinks itself, if it is the most excellent of things, and that its thinking is thinking of thinking." But he goes on to explain: "It is plain that science and opinion and thought are always of something other than themselves, and of themselves only accidentally. Still, if thinking and being thought are different, by virtue of which is worth attributed to the reason? For, in that case, to be thinking and to be thought will not be the same. The fact is that in some cases a science is its own subject. In the case of the arts, immaterial substances and essences are the subject, in the speculative sciences, ideas and thinking. But now, since the object thought and the thought of the object are not different in cases where matter is not involved, they will be identical, and thought will be one with its object."

Aristotle then takes up the other question, the question of the way in which the divine intellect knows itself, enlarging upon the point already made that its knowledge cannot be discursive, but is steady and without change or process. "There is," he says, "yet another perplexity, — the difficulty whether the object of thought be manifold. If it were, there might be change among the parts. But we must say that immaterial things are indivisible. And just as is the condition of the human reason, or of

any reason which synthesizes the manifold in some one moment of time, grasping, as a reason so constituted must, the good not in this or that moment, but the sovereign good, in a certain wholeness of time, — such, I say, is the condition of the divine thinking of itself, throughout all eternity.”

“At first sight these passages seem mystical enough; especially such phrases as “the intellect thinks itself in grasping the intelligible,” and “thinking is thinking of thinking.” But Aristotle, we may be sure, was far from intending them mystically. And it behooves us to see whether they be not capable of interpretation in clear and reasonable terms. To this end we shall do well to consider, first, the relation which Aristotle conceives the divine intellect to bear to its object, and secondly, what he conceives that object to be.

The first point, I think, offers no special difficulty, but is cleared of its apparent mysticism by our own modern epistemological doctrine. To the question, ‘What is truth?’ we to-day reply that truth is not an outer or an alien object into correspondence with which our minds bring themselves, but rather something internal to the reason and expressive of its nature. Truth is the ideal of rational activity; in attaining it, reason is only realizing itself. Apart from a reason which thinks and intends it, truth as such would have no existence; and, conversely, apart from the truth which it thinks, reason could not exist. Take from it that rational organization of things which is its object and complement, and there is left precisely as much, for example, as when you empty sense of the sensuous, consciousness of its content, clouds of their rain. The intellect then is the intelligible, as Aristotle says. Moreover, it is “the intelligible rather than the intellect which would appear to be the divine part of the mind.” For it is the content of consciousness which gives consciousness its value and justification. Reason means no more than that there is a rational order in experience. Apart from that order it is meaningless.

“In like manner, in the divine mind the thinker and the thought are one. The thinker merely states and guarantees the fact that the thought exists. The thought tells us what it is that exists.

That the divine intellect thinks itself in thinking the intelligible, will signify, then, simply that there exists an experience of a certain definite essence or character. ✓

We must, however, exclude from our conception of the nature of the divine experience all idea of self-consciousness, in the sense of personal self-consciousness. God embodies or enacts the ideal operation of the reason. But the character of this ideal operation Aristotle finds revealed in those moments of our own thought when we are most engrossed, and least aware of the 'fringe' of extraneous consciousness or of supererogatory reflection upon the fact of our own absorption. And the ideal itself would be attained precisely when that awareness of a 'fringe,' and that 'knowing that I know' disappeared completely in the all-absorbing interest of the object of vision or meditation; when, in a word, my thought was so abandoned to its object that it, nay that I, meant no more than that the object was incandescent with existence and value.

Such is the divine experience. In that profound meditation upon itself in which the life of God consists, that accurate focus of thought upon and complete absorption in its object which is the perfection of rational thinking, is a realized fact. 'God knows only himself, with a knowledge in which there is distinction neither of self from not-self, nor of the activity of thought as such from its content, — two distinctions which are indispensable conditions of personal self-consciousness.' ✓

With us the moments of such self-transcendence and union with the object of our thought are fleeting and abortive, but with God the moment is as eternal as the identity is complete. By this we are to understand not that God's self-meditation endures through endless time, but rather that it is independent of the conditions of time altogether. The eternal for Aristotle, as for many modern theories, is that in dealing with which we need take no account of time. The laws of nature, for example, we call eternal laws; that is, in the laws of nature we have a description of phenomena which is capable of abstraction from temporal relations. They are exemplified in time, indeed, but their vitality is drawn from a sphere quite outside of time, the sphere of logical

order and connection. They are the result of an express intention to rise above one and all moments into a world of logical sequences and permanent aspects existing in no one instant, but 'good' for and applicable to all moments.

Such a world is the mind of God. Its content, that is, itself, is a logical content of pure thought. The matter of our experience is given from moment to moment, and we must perforce compose the manifold of its temporal succession and discover its structure and meaning by attention to the monotonies in a process of endless reiteration. But God is, as it were, eternally complete. He is simply what he is, one fact or act of thought into whose being and consideration time does not enter.

This 'eternal' act of thought, however, is not vapid or colorless. Like those 'best moments' of our own self-forgetfulness in the presence of an absorbing object, it is supremely pleasurable. God not only exists, he lives. What makes life worth living is not its quantity but its quality, and the happiness which we pick bit by bit from the passing years is gathered up and enjoyed by him in the felicity of that single and final act of consummate vision which enshrines the sovereign good of the rational will. Than such vision there is for Aristotle no higher or more joyous life. The contemplation of truth is life; it has within it all that goes to make up a life, the activity, the happiness, the completeness. Truth, as we say, is a living truth; it is what is vital and permanent in things. The value of truth and of knowing it is vindicated in God, — the greatest of all philosophers.

So much by way of interpretation of the form of the divine knowledge. We pass now to the second point, and ask, What is its object? The answer seems ready. God, says Aristotle, knows himself. God is the perfect operation of thought in and for itself, and hence his thinking is thinking about thinking. *Νόησις νοήσεως νόησις.* But this answer, on closer scrutiny, carries us nowhere except into the midst of a war of commentators. Thinking, we at once ask, about thinking what? and the battle is on.

A suggestion which immediately offers itself to us as plausible, in view of the foregoing discussion about the form of the divine

thought, is that the object of the divine knowledge, *i. e.*, God himself, is really nothing but absolute truth. As we saw, Aristotle, in his conception of the *modus operandi* of the divine intellect, appears to have in mind the relations of the human reason to its object. Now the human reason has for an ideal nothing short of the truth, the whole truth, and nothing but the truth. But its attainment of this ideal would mean its own expansion into an absolute reason, whose single, immutable act of thought should once and for all enshrine the logical system of forms and relations which we call truth. Such a reason would be the absolute form of the world. It would mean merely the self-knowledge of the formal and intelligible, the self-existence of the vision *sub specie æternitatis*. We are tempted, then, to say that the Aristotelian God, actually realizing as he does the formal conditions of such a reason, embodies also its matter; that is, that he is the intelligible order or truth of things incompletely reasoned out by us, guaranteeing its existence as a fact already *there* in its completeness, prior logically to its inadequate embodiment in particular things and its imperfect operation in human reasons, and drawing its vitality and validity from springs other than those of human thought.

This view, which after some fashion conceives the object of the divine knowledge to be the logical universe of interrelated forms, has the support of some commentators; but by others it is rejected.¹ The latter contend that Aristotle means to exclude from the mind of God not only all knowledge of particulars, but also of all forms save his own. His form is the one pure form that there is, different from every other form in that it is the form only of itself, containing within itself the basis not only of its abstract but of its concrete existence. And within this unique fact, all God's life and thought are locked up. He knows nothing but it, nothing but himself.

If this interpretation be correct, it is again not difficult to divine what Aristotle has in mind. All ordinary forms or concepts are

¹ For a discussion of this point, into a consideration of which it is not the intention of the present paper to enter, *cf.* Zeller, *Phil. der Griechen*, Vol. II, 2, pp. 382 *et seq.*

forms of something. They are found only in the particular objects which exemplify them, and from these particulars can never be wholly extracted. However high their heads may be in the clouds, their feet always must rest upon a basis of solid earth. Or, to put it in psychological terms, we can never get a pure concept. Abstract our thought as we may, we can never rid it completely of an admixture of sense and fancy. It is tied to experience by a thread of imagery which, however it may be stretched and attenuated in its infinite elasticity, cannot be broken.

Now it is precisely this thread which Aristotle would appear to be trying to break. As long as it is tied down by this reference, however remote, to a sensible content, thought, as he apparently holds, cannot realize its pure actuality. There is always something left for it to assimilate, a residuum which is not pure thought. The ideal thought would be thought cut loose altogether from the anchor of a sensible point of reference, and thinking wholly and only of its character *qua* a mere thinking process. So the ideal form would be a form not of sensible particulars, but of a purely formal and abstract subject-matter. It would be the form or concept of just the formal and conceptual element in things. This ideal limit and standard of thought and form must actually exist, Aristotle thinks, in order both to excite that approach towards it which all thinking means in proportion as it is rational, and to guarantee the validity of that approach by assuring us of the reality of its goal.

It is not the purpose of this paper to attempt to decide in any way between these rival interpretations. Personally, I incline to agree with the latter view. But I cannot refrain from pointing out that, whether or no it represent Aristotle's thought, it is liable to a very obvious *reductio ad absurdum*. God's essence, we are told, is thought of thought. But thought of thought of what? By draining thought and form of its filling of sensible reference, we have apparently deprived it of all that gives it value and relevance. It is reduced to mere reflection upon itself, with no other self than the barren act of reflection to reflect upon. It is thinking about thinking not that intelligible content, that logical constitution of a sensible world, which alone gives thought

its dignity and worth, but about nothing but itself, — which without that content is nothing. It is like consciousness without anything but its mere name to be conscious of, and therefore meaningless.

We leave, then, this perplexing question of the content of the divine mind unsettled, and perhaps insoluble, and pass on to consider certain aspects of the Aristotelian theology which bear upon modern thought. In the first place, we have to note the dualism of the Aristotelian teaching. However we may solve the knotty problem of the content of the divine mind, there is no doubt that we must exclude from it the whole phenomenal universe. That universe is the expression of another point of view, of which we, *qua* imperfect mortal beings of sense and flesh, are the vehicles. And as these points of view are distinct and opposed, so are their metaphysical bases. The one is in no wise the substance or ground of the other. The two eyes of reason and sense are, as it were, connected with different brains. Opposed to God, the pure form, stands *ἕλη, δύναμις*, the raw material of existence, symbol of the fact that there is a condition of things other than they appear to the divine insight, — if, indeed, the universe be known under any aspect at all to God. Of this otherness, of the mundane point of view with its categories of generation, corruption, and motion, God is not even aware, much less is he responsible for it. Even granting the contention that he knows and constitutes the logical order of forms inherent in the world, his vision of himself, to use a figure not entirely adequate, is not of

“The sun, the moon, the stars, the seas,
the hills and the plains,”

but of the configurations of atoms in space. His experience is not a panorama but a plan.

This dualism, viewed in the light of modern theories, seems to me to be the source both of the strength and the weakness of the Aristotelian system. Regarded in its moral aspects, it stands, I believe, as a sane and valid protest against all systems of ethical monism. Its metaphysical reinforcement of the vital, practical distinction between what is and what ought to be, its insistence

upon imperfection as a real condition of affairs, and not a mere hallucination, contrast it with many systems of the present day in the same terms in which Aristotle contrasted Anaxagoras with the other Pre-Socratics. Theory may dream, if it likes, that somewhere and somehow real and ideal, good and evil, black and white, are one and identical, but practice must always act as if they were two. And there is a strong presumption inherent in the nature of thought against the validity of theories which cannot be acted upon, nay, which, if they were valid, would invalidate action. In this matter, at least, Aristotle is the exponent of common sense, and of what we call real life. He preaches what we practice. The pure-mindedness of his God rebukes the *double entendre* of the absolute mind. His perfection, like the perfection we worship, is the absence, not the sum of finite imperfections; not the fictitious justification of what is, but the concrete embodiment of what ought to be. We may perhaps challenge the content of that ideal as too abstract and cold; but we may doubt whether it be any more cheerless than that which makes the peace of God to consist in a victorious battle of himself, by himself, with himself.

Moreover, if our ear be only alert to catch what I conceive Aristotle really means by this apotheosis of the contemplative life, we shall perhaps be willing to withdraw our challenge altogether. There is nothing really pedantic, I believe, as might at first appear, in this exaltation of the operation of thought above the other functions of our nature. It is not the narrow view of the recluse magnifying his own sedentary interest and belittling all others, but rather a clear and sympathetic insight into the purpose and perfection of all rational life. Aristotle is not saying that man should be only a thinking being, but simply that of all the activities of our nature thought best exemplifies in its inner relations what should and must be the organization of our whole life, so far as it is a life, the *διαγωγή* of a rational and moral being. And it is principally, I believe, because the activity of thought reveals most clearly this ideal constitution of all noble life (though doubtless his insight was cheered and warmed by an enthusiasm for the high serenity of philosophic contemplation) that Aristotle makes of it the very essence of godhead.

I mean that for Aristotle a life of moral and rational value must be a life of activity devoted to fine purposes. It must, as it were, make of itself a vehicle or medium for the manifestation of splendid and noble things. As thought should aim merely to be its own object, so such a life in proportion as it fulfils its function will be a more transparent medium of expression and less discernible from what it conveys and represents. Could its activities completely clarify themselves of all that was irrelevant to its purpose, they and it would mean nothing but the living presence in the world of the ideal things for which it stood. All self-consciousness and extraneous experience and inappropriate operation would have been sloughed off as functions in excess. We, freed from all 'selfishness,' should have become wholly our high callings. Thus the isolated moments of self-forgetfulness in meditation and contemplation which we now and then enjoy, might truly be said to have forecast the form of a whole life which in all its activities should signify merely the actual existence of the noble purposes to which we had devoted ourselves.

So much for the ethical aspects of Aristotle's dualism. But its pertinence to modern thought is not confined to them. From the point of view of psychology, we may also ask whether the complete isolation of the divine mind from all knowledge, certainly from all knowledge of the phenomenal world, and probably from that of the logical universe, be not, in spite of its difficulties, a valid criticism of the 'awful mystery' which characterizes the digestion of experience by the Absolute, or, indeed, of any attribution of sense-perception to a being 'without body, passions, or parts.' The analogies of experience certainly do not warrant the assumption of sensible experience apart from the existence of sense-organs; and this, whether we be materialists or idealists. In the one case, we say quite frankly that sense is conditioned by the existence of a physical body; in the other, that it is always found connected with that set of experiences which we call a body. Nay, Aristotle's apparent denial to God of all knowledge save of himself, is in one sense logical enough. For all forms except the divine form are forms of sensible particulars. Psychologically speaking, they are not pure thought, but are accompanied by

imagery. Apart from the particulars which they cover and the imagery which gives them content, they are forms of nothing and are void. Their relevance, then, is drawn from a kind of experience which in its turn is relevant only to a substratum, material in both our own and Aristotle's sense of the word. Hence they cannot be appropriate objects of a divine or of any disembodied and pure intelligence.

But although this dualism may be a fair criticism from the point of view of morals and psychology of much of the thought of to-day, it yet involves grave difficulties in other directions. We may doubt, indeed, whether the metaphysical separation of the finite and the Absolute involves any graver difficulty than do our modern attempts at metaphysical derivation of finite from absolute, imperfect from perfect, or even sensible phenomenon from atom; but the separation is still indefensible. Subjectively, it sunders a real unity of experience; objectively, it attributes reality to abstractions, even if it does not try to make appearance of reality. For the purpose of our criticism, it is much the same whether we put the cart before the horse like the absolutists, or unyoke them altogether like Aristotle. To the latter, one may reply that what is practically is also metaphysically one; to the former, that what is practically is also metaphysically real. God and the world are one, indeed, but it is the world which is *the* one. The finite, the imperfect, the particular, is the real thing. The Absolute, the point of view *sub specie æternitatis*, the Aristotelian God, are universals, ideal abstractions from the particular objects which compose reality. God, as Aristotle describes him, is merely an abstract, general description of the nature and ideal of the human reason; but it is the finite reasons on which the description is based, which are the real things. Pure form, in a word, is no less an empty logical concept than pure matter, which Aristotle recognized as such.

That Aristotle insisted on the concrete self-existence of pure form in the divine being is perhaps due to his identification of form and matter with actuality and potentiality respectively, combined with considerations of physics and astronomy involved in his doctrine of the priority of the actual. The cogency of this

argument I do not deny. A thing, indeed, can only be explained out of its possibilities in retrospect. We must have the thing before we can derive it. We derive, for example, the solar system from the nebular only by assuming the existence of a number of conditions or laws, which the system as it is to-day, or rather the whole history of the system, has revealed to us. The nebula explains the world, simply because this *is* the world which is proved *de facto* to be the actualization of its possibilities. Prospectively, too, the ideal must already be given, in part at least, before it is realized. Form is prior to its embodiment. But, on the other hand, form is modified, nay, made by its embodiment; the ideal is generated out of the real. Form, both so far as it is realized and so far as it is idealized, has no other *point d'appui* than the particular object whose real or ideal form it is. And for the ideal to be realized, it is necessary only that it should be an ideal, not that it should have an extraneous hypostasis. The ideal like the universal, we may say, exists only in and for the reals whose ideal it is. It turns from the expression of an unfulfilled interest into a fulfilled fact only when it is made a fact in and by the real whose interest it expresses. The universe is just as good, just as rational, just as complete as its members make it. This would seem to be implied in the very nature of the good and rational. Both are social in their genesis and reference, the expression of an interest to find common ground for the building up of a common weal. The finding of that common ground, the full realization of that common weal, necessitates in the very nature of the case a discovery and a realization common to the finite individuals whose interests and aspirations are involved. A perfection which is social cannot be realized in anything short of society; a perfection which is ours, in or by anything but ourselves.

We may say, then, of the Aristotelian deity, in his rôle of sovereign good, as of any other perfect being that arrogates to itself in that capacity a self-existence transcending mundane realization of itself, that it is a myth. Its separate hypostasis is simply a fond anticipation in a metaphysical fairyland of an ideal begotten by the human will and conceived by the human imagination and to be born, if ever it shall be, in a world of human experience.

Moreover, supposing that we admitted the Aristotelian contention that the highest good, the goal of the world movement, contains within itself the conditions of its own existence, and is from all eternity embodied in a self-subsistent life, we might well question whether such an independence of the end of the process seeking it did not invalidate the Aristotelian teleology. As the case stands, the attempt to identify the efficient with the final cause appears to be unsuccessful. God may be the object of the world's desire, but the desire, the appetite, the impulse to seek Him which is the real motive power of cosmic movement, it would seem impossible to dissociate from matter. This failure to reduce efficient to final causation is due, I think, to a defective psychology. In interpreting the movement of the world by the analogy of causation, Aristotle did not fully grasp the nature of the analogy of which he made use. He failed to see that the object of desire is nothing extraneous to and independent of the desire, but is simply its own self-fulfilment. It is no transcendent *summum bonum*, but the mere possession of unrealized capacities which incites the will; the non-existence, one might say, rather than the existence of perfection. The will, in a word, is precisely that which Aristotle considered impossible, a self-actualizing potentiality. The correct understanding and application of the analogy, then, should have led Aristotle to deny rather than to assert the independent self-existence of the sovereign good. It should have been the absence rather than the presence of perfection which moved the world; not the fact that perfection existed, but the fact that the world was not perfect, and that perfection could not exist till the world became perfect.

But admitting all these faults in the Aristotelian thought,—faults, indeed, which make mythology of its metaphysics,—its 'mythos' is yet that of the goddess of truth. Though we may recognize that it is only the life of reason in the larger sense which can be the true sovereign good, and that this life can have no existence apart from finite individuals, either so far as they conceive it ideally, or so far as they actually embody it,—in fine, that the Aristotelian God is a pure ideal rising out of and reacting upon a world of finite beings, where alone, if at all, it

can find concrete existence, the system is nevertheless an accurate description of the structure and meaning of experience. For the nature of the experience which constitutes the universe for any one finite center is, in truth, a movement from possible to actual, from unrealized to realized capacities, from the chaos of mere sensation and apperception to the cosmos of a rationalized and ordered world, from a partial and distracted to a more complete and self-forgetful identification with the good,—a movement which might not inaptly be described as a striving of consciousness to think itself in rational form. And of this there can be at least no finer allegory than Aristotle's vision of the world as the result of the yearning of imperfect and unrealized matter after the *pax, ordo, et tranquillitas* of the perfect life of God.

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REVIEWS OF BOOKS.

Platons philosophische Entwicklung. Von der Königlich Dänischen Gesellschaft der Wissenschaften gekrönte Preisschrift. Von HANS RAEDER. Leipzig, B. G. Teubner, 1905. — pp. 435.

The author says in his preface: "The theme of the present work was not chosen by the author, but was set by the terms of the prize offered in the spring of 1902 by the Royal Danish Academy of Sciences. The subject proposed was 'an inquiry into the order of the chief Platonic dialogues, considered as well from the philosophical-as the chronological point of view.' This theme was further defined by the requirement that the fruits of recent studies be gleaned and sorted, and additional results be derived from the point of vantage thus gained. Hence it was not my prime purpose to seek new and independent results on my own account, but rather to garner in what seemed to possess abiding worth in the voluminous literature of the Platonic question. I believe, however, that I have been able to gain a number of new points of view and not a few substantial results."

The work was originally composed in Danish and entered for the competition in 1903; on its publication in German, therefore, it was two years old, and hence could take little account of studies published in the interval. The book consists of four parts. The author begins (I) with a sketch of the history and present status of the Platonic question (pp. 1-19). He then (II) treats of the necessary points of view for the consideration of Plato's dialogues, discussing (1) the question of genuineness, (2) investigations relative to language and style, (3) the dialogue-form, (4) the determination of the chronological order as indicated by historical allusions and the philosophical contents (pp. 20-87). Then follows (III) a detailed examination of the individual dialogues (pp. 88-419); and the inquiry closes with (IV) a review of the outlines of Plato's thought (pp. 420-426).

In the first part Raeder tells with skill and critical judgment the story of Platonic studies from Schleiermacher down to our own day. It is not too much to say that his account is the best available introduction to the subject, setting forth as it does in brief what is essentially true and what is radically false in the positions successively taken in this controversy by the great scholars of the last century. Time has passed upon the parts of the protagonists and impartial judg-

ment may now be rendered. It is therefore not strange if the critical reader regards this chapter as the best in the book.

In regard to the question of genuineness, Raeder appears to reject the following: *Eryxias*, *Alcyon*, *Sisyphus*, *Axiochus*, *Demodochus* (all of which Diogenes Laertius pronounced 'admittedly spurious'), *Anterastæ*, *Hipparchus*, *Minos*, *Alcibiades II*, *Theages*, *Alcibiades I*, and, probably, *Clitopho*. The *Letters* Raeder regards as genuine. Whether he be right or wrong, it is certainly strange to find him asserting that their genuineness has not been impugned with any arguments worthy of consideration.¹ While there are several letters in the collection which may well be genuine, there are others of which it is well nigh impossible to entertain so good an opinion. My study of the question ten years ago and my subsequent observations have convinced me that the matter can be finally disposed of only by a comprehensive examination of the *Epistolographi Graeci*, a task so arduous and in part so uninteresting that nobody is likely soon to undertake it. The case of the disputed dialogues is much the same. They do not stand alone, but must be considered in company with other suspects and *pseudepigrapha* of about the same date.

Raeder's discussion of the linguistic and stylistic criteria is, on the whole, sane and satisfactory. He calls attention to the errors of Lutoslawski, whose tabulation was based on a classification and evaluation of marks often extremely superficial and whimsical. But taking it by and large, his inquiry leads to much the same results as Lutoslawski's. But, in thus commending Raeder's procedure, I would not be understood as accepting his conclusions in detail; for the nature of these criteria is such that they can be conclusive only as applied to longer periods, and even then only when properly discounted and taken in conjunction with other indications.

So, too, one may accept in the main the principles laid down by Raeder in regard to dialogue-form and historical allusions without assenting to many of his conclusions. Thus it by no means follows from Plato's criticism of the recounted dialogue in the *Theætetus*, that the *Republic* must have been written at an earlier date. Plato was too great an artist to be restrained from using a form offering such splendid dramatic possibilities (see the beginning of Books I and V) by a desire for a marionette-like consistency with a pronouncement he had once made and might disregard when he chose. One might as well infer from the slighting view taken of writing in

¹ Dr. Raeder has just published (*Rh. Museum*, 61, pp. 427-471; 511-542) an elaborate and excellent essay designed to prove the genuineness of the *Letters*. This is, of course, not the place to review his fuller discussion of the question.

the *Phædrus* that Plato could not have written dialogues at all. Again, one may willingly admit that the temper which made of Plato an enthusiastic moral reformer in his day was ill-suited to the detachment of thought requisite to an historically accurate portrayal of a past conflict between true and false philosophy in the persons of Socrates and the Sophists of the *Aufklärung*, without supposing, with certain scholars of our time, that one may even now reconstruct the philosophy of Antisthenes from the polemic of Plato.

Raeder says of the order in which he arranges the dialogues, that it does not claim to agree exactly with the order of composition, thus admitting that there is still a reasonable doubt in many cases, and that Plato may well have been simultaneously engaged in the writing of several dialogues. Besides, he says, some dialogues are discussed one after the other because of their affinity in subject or thought. Yet in the main he regards the following order, observed by him in the consideration of the dialogues, as following the order of composition: (I) The Socratic dialogues, *Apology*, *Ion*, *Hippias Minor*, *Laches*, *Charmides*, *Crito*; (II) *Hippias Major*, *Protagoras*, *Gorgias*; (III) *Menexenus*, *Euthyphro*, *Meno*, *Euthydemus*, *Cratylus*; (IV) *Lysis*, *Symposium*, *Phædo*; (V) *Republic*; (VI) *Phædrus*; (VII) *Theætetus*, *Parmenides*; (VIII) *Sophist*, *Statesman*; (IX) *Philebus*, *Timæus*, *Critias*; (X) *Laws*, *Epinomis*. It may be of interest to compare with this arrangement that of Gomperz. The *Crito*, which Raeder places among the early Socratic dialogues, Gomperz thinks may have been written, together with *Phædo*, *Euthydemus*, and *Menexenus*, during the period when Plato was at work on the *Republic*, whereas Raeder places the last mentioned dialogue between *Gorgias* and *Euthyphro*, and sets down *Euthydemus*, along with *Cratylus*, between *Meno* and *Lysis* (*Symposium*). These differences in detail do not, however, signify as much as might at first appear, because they leave in general the same dialogues in the same parts of the column, taking the *Republic* as the point of division.

With this scheme, if it were allowed to stand without much elaboration in detail, scholars with few exceptions would probably be found to agree. The opinion of scholars, that is to say, is crystallizing in some such form as this: There are some dialogues which may be regarded as in some sense preliminary to the *Republic*, and may be called the earlier works; there is a second class, grouped round the *Republic*, which may be said to mark the maturity of Plato's philosophical and artistic powers; there is a third class which betrays a passing phase of Plato's thought characterized by absorption in prob-

lems somewhat largely formal and dialectical, represented by *Parmenides*, *Sophist*, *Statesman*, and *Philebus*; and there is a final phase of mellowed wisdom, comprehensively constructive but somewhat negligent of artistic form, finding utterance in *Timæus* and *Laws*. All attempts to go beyond a rough classification of this sort, with slight emphasis on the distinction between the first and second classes, seem destined to mislead the scholar into unprofitable refinements and various kinds of special pleading, in the interest of a contention which another may readily refute without himself being able to establish a different order.

Raeder's book, like all works of this sort, contains so many instances of such arguments that it may be worth while to consider a number of them, in order that the student of Greek thought who is not a specialist may take warning and use the supposed results of these investigations with becoming caution. A good illustration is to be found in Raeder's treatment of the *Crito*, where he successfully combats the arguments by which Gomperz sought to prove its comparatively late date, but is himself guilty of dating the dialogue on insufficient grounds. If the peculiar differences between the *Crito* and *Phædo* may be explained by reference to dramatic considerations, why may not those between *Crito* and *Apology* (p. 100) and between *Apology* and *Gorgias* (p. 123) be accounted for on similar grounds?

Much has recently been made of a supposed difference between Plato's earlier and later dialogues in regard to his attitude toward the Sophists. Raeder shares this view, and maintains that in the *Apology* Plato endeavors merely to distinguish between Socrates and the Sophists, whereas later on he proceeds to attack the latter. So far as concerns the *Apology*, the explanation is not far to seek. If the illusion of a forensic defence was to be maintained, Plato must needs confine himself to the case, and defend his client against the misconception of the multitude, whose prejudice against the Sophists was an important factor in the charges brought against Socrates. His direct defence is restricted to such externals as the Sophists' public advertisement of themselves as teachers, and their consequent acceptance of fees for tuition; but indirectly he sufficiently indicates the more essential difference in method by characterizing the critical quest of Socrates for the *rationale* of the arts. There is nowhere, I believe, a suggestion that Plato did not from the first observe this distinction. In the minor dialogues he represents Socrates by preference as dealing, so to speak, at first hand with the popular notions and prejudices, showing that they are founded on ignorance and want of self-examination; in the

'Sophist' dialogues he takes up essentially the same notions as they appear embodied in the pseudo-science of the popular teachers. How difficult it may be to differentiate the two classes is well shown by the *Euthyphro*, which is commonly assigned to a comparatively late date. The seer *Euthyphro*, however, though professing to be a teacher of religion, cannot in any proper sense be classed as a Sophist.

This same dialogue presents several striking resemblances, commonly overlooked, to *Hippias Major*, which is regularly dated early. Thus, when Hippias, responding to a demand for a definition of beauty, replies (287E) that it is 'a beauty,' that is to say, a beautiful girl, one is properly reminded of Euthyphro, who defines piety by saying that it is doing as he is doing, to wit, prosecuting his father (5D). Compare also 296E with 10A ff., 297B-C with 11E ff., and study the closing scenes of the two dialogues. Hence one may be pardoned a doubt when Raeder (p. 104) says that εἶδος, which is found also in *Euthyphro* (6D), occurs first in the *Hippias Major*, and that the use of the word contains only a 'germ' of the Theory of Ideas.

A rather amusing instance of the inconsistency to which those who would be over-exact in dating the dialogues are prone, occurs on p. 106. Here Raeder, speaking of the *Protagoras*, notes that, among the Sophists assembled at the home of Callias, Gorgias does not appear, giving as a reason the explanation that this Sophist was later on to be treated of separately. But why, then, one is prompted to ask, is Hippias represented as present? Is it, forsooth, because he has already been treated of separately? I may say in passing that Raeder here and there gives space to criticism of suggestions too inept for notice, merely because some scholar of reputation has chanced to make them, as for example in note 1, p. 106, where he refutes Dümmler's theory that we are to look for Isocrates under the charitable mask of Hippias.

In *Laches* courage is regarded merely as a species of virtue, whereas in *Protagoras* the virtues are said to be wholly alike. Raeder considers this fact as proof that *Protagoras* is of later date. But the position taken in this dialogue is clearly a paradox such as might have been enunciated at any time on the basis of Socrates' doctrine that virtue is knowledge. The Stoic dogma that he who has one virtue possesses all virtues, stands essentially on the same footing. That Plato was well aware of the logical error of this proposition, which involves false conversion of terms, is sufficiently indicated in the *Protagoras* itself (350C-D); but in the 'later' *Euthyphro* the same 'error' occurs. Manifestly, then, other points of view must be taken in the interpretation of such phenomena. It is beyond question that Plato was not

always a victim of his own sophisms. It behoves the student of his dialogues to inquire in every case whether or not he was aware of the so-called fallacy, and, if so, what his motive may have been, before basing upon the occurrence of a sophism an argument for the date of the dialogue. This inquiry is still, after many correct observations, far from a satisfactory conclusion. Thus Raeder declares (p. 114) that this 'superficial' use of the copula is abandoned after the *Protagoras*, although, as has just been said, it recurs in the *Euthyphro*, which he regards as of later date.

I will take one more instance from the *Euthyphro*. Piety is here (11E ff.) subsumed under justice. Now, because Plato in *Protagoras* enumerates piety among the so-called cardinal virtues and in *Gorgias* (507B) distinguishes between piety and justice, the one denoting righteous conduct toward the gods, the other toward men, Raeder assumes (p. 129) that *Euthyphro* is of later date than the other dialogues. This may indeed be the case, but does the conclusion follow from the premises? Piety was doubtless, as in *Protagoras*, popularly regarded as an independent virtue; and, if it was to be distinguished from justice, it would most naturally be defined in current speech as it is in *Gorgias*. There is nothing in either dialogue to compel the conclusion that Plato is expressing his own reasoned analysis of the virtues; for his practice is in this respect very different from that of the systematic Aristotle. It is just this difference that lends vivacity to Plato's dialogues and saves them from the severe technicality of an Aristotelian treatise. In the *Euthyphro*, however, he is expressly bent on finding the true definition of piety. In a sense every virtue, as denoting propriety of conduct, must be a species of justice or righteousness, as appears, indeed, from the *Republic*. Hence it was a difficult task to keep distinct the spheres of the several virtues, as is evident in his great masterpiece; for precisely the same terms are in part employed in the *Republic* to characterize sobriety (*σωφροσύνη*) and justice (*δικαιοσύνη*).

I have said enough to show what I meant above by saying that Platonic criticism is yet a long way from a satisfactory solution of the question as to the order of the several dialogues, except as it concerns the larger groups above mentioned. Indeed, it may well be doubted whether the question in this form admits of solution with the data at command. For all that, the detailed study of individual dialogues in their relation to the rest will unquestionably contribute to a fuller appreciation of Plato's thought and method. The time has not yet come for a definitive statement; for there has never been more

fruitful activity in this field of research than there is at present. While we may not, therefore, blindly accept the conclusions of any critic, the summing up of the debate at any given point in its progress must prove of great value, especially when it is done with the skill and judgment displayed in Dr. Raeder's book.

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Symbolic Logic and Its Applications. By HUGH MACCOLL. London, Longmans, Green, & Co., 1906. — pp. vi, 141.

The Development of Symbolic Logic. By A. T. SHEARMAN. London, Williams & Norgate, 1906. — pp. xi, 242.

The former of these two works is an exposition of the author's system of symbolic logic. The latter is a general outline of the history of symbolic logic, "a critical-historical study of the logical calculus," as the sub-title of the works states. In Mr. MacColl's treatise a number of the chapters are reproductions of articles of his which appeared originally in *Mind* and the *Athenæum*. His system is given here, however, for the first time in its entirety. The fundamental characteristic of his system lies in his use of symbols to represent propositions rather than classes. His unit of thought is thus the judgment rather than the concept; and his point of view is that of implication rather than that of the inclusion and exclusion of related classes. In his insistence, however, upon the propositional representation as the sole method of logical symbolism, he fails utterly to appreciate the possibilities or the value of such systems as those of Boole, Venn, Jevons, and others. While not allowing the exclusive character which Mr. MacColl claims for his method of representation, one must nevertheless admit that, in making the proposition the unit of thought, he has brought the symbolic logic into line with the general theory of modern logic to-day. Mr. MacColl differs, again, from earlier systems in not employing the equation as the elemental mode of expressing the various judgment forms. He represents the subject of a proposition by a letter such as *A*, its predicate by the use of an exponent, and an adjectival qualification by a suffix.

Thus with the proposition, 'An experienced man is always confident,' he would represent 'man' by *M*, 'experienced' by *e*, and 'confident' by *c*. The stenographic symbol of the proposition would be, M_e^c . If a negative predicate is to be indicated, it is done by the *minus* sign attached to the exponent. Instead of employing the sign of equality, =, he substitutes for it the sign, :, which signifies the relation of impli-

cation. For instance, let k stand for 'knowledge,' and p for 'power'; then $k : p$ would signify — 'knowledge implies power.' Then there is also his syllogistic formula, — $(x : y)(y : z) : (x : z)$. This formula asserts that, 'If x implies y , and y implies z , then x implies z .' We have now before us the essential elements of his symbolical machinery. They admit naturally of indefinite explication, and complication as well, but this is his symbolism in the small at least.

Mr. MacColl's most original contribution, in the presentation of his system, is his so-called *calculus of limits*. This is illustrated at length in this volume.

In the course of his symbolical treatment of the subject, he touches upon general questions which are related immediately and essentially to the general theory of logic. In the limited space assigned to this review, I can mention but briefly in passing the most striking of these.

1. Instead of the simple categories of the true and the false, upon which all logical significance or value turns, Mr. MacColl introduces three additional categories which he insists must be reckoned with in any symbolic system of logic, namely: the certain, the impossible, and the variable. This is certainly a needless complication, and does not make for clearness or for definiteness of thought. The question of certainty or impossibility is one which naturally arises in the course of thought, but it is essentially a different question from the strictly logical one of the true and the false. Moreover, the idea of the true carries with it the implication of the certain according to the general dictum: 'Once true, always true.' The variable element in the statement of a truth, if any such exists, lies wholly in the difficulty of exact and adequate knowledge and the limitations in expressing the same. But when the truth is fully established as truth, all variable elements are eliminated. Indeed, the progress of thought in any field of research may be described as the process of eliminating the variable elements in the formulation of universal and necessary truth. Truth is revealed by the presence of this necessary element. It must be remembered that the general logic is the science of exact thought, and that exact thought may be expressed symbolically by the symbols 1 and 0, the 1 representing truth, and the 0 representing falsity. Any intermediate statements having an obviously variable character may be represented by the proper fractions lying between the limits of 0 and 1, that is, the sphere of probability, which is confessedly a sphere of tendencies at best and not of law or of constant behavior. The moment such a tendency is further qualified so that the variable element is eliminated, it admits of exact formulation and swings into the

orbit of the logic of determinate thought, which is expressed by an algebra wherein the values of x are 1 and 0 respectively. Mr. MacColl gives an illustration of what he is pleased to call a variable proposition in the following: 'Mrs. Brown is not at home.' He insists that this statement is true in some contexts, but not in others. "By a variable," he says, "I merely mean that the symbol, word, or collection of words, sometimes represents a truth and sometimes an untruth." Such a formal representation is, however, not a proposition; it is only the skeleton of a proposition. To say that the proposition, 'Mrs. Brown is not at home,' is true or false according as we state one definite time or another in connection with it, is merely saying that it is only the blank form of a proposition to be made definite, and therefore in truth a proposition, by filling out the blank spaces with terms having a real worth and significance. Mr. MacColl could with as much propriety call a blank check negotiable paper. It is not a check until it is filled out and signed. It must be remembered that logic, even symbolic logic, does not deal with form without content. Even its most general expressions imply that the content, though not specifically expressed, must be regarded as having a constant and not a variable logical significance.

2. Mr. MacColl insists, and quite properly, upon the essentially hypothetical character of the syllogism, and urges that, when we say: 'Every A is B , and every B is C , therefore every A is C ,' we really mean: 'If every A is B , and every B is C , then every A is C ' (p. 47). This is all very well as far as it is the expression in exact terms of the underlying law of implication, but it will not do at all when we are face to face with a concrete situation and have to render a definite judgment as the result of our interpretation of the law of implication. Mr. MacColl states that, when we say P is true, *therefore*, Q is true, we really mean, If P is true, then Q is true (p. 48). I insist, however, that there are situations which a hypothetical never satisfactorily meets. The point often is, whether a P is true or not, and that being settled, the implication that Q is true also follows necessarily and there is a force to the connecting word *therefore*. For instance, let us take an illustration which the author himself gives to substantiate his contention (pp. 48, 49). "Suppose a general whose mind, during his past university days, had been over-imbued with the traditional logic were in war time to say, in speaking of an untried and possibly innocent prisoner, 'He is a spy, therefore he must be shot,' and that this order were carried out to the letter. Could he afterwards exculpate himself by saying that it was all an

unfortunate mistake, due to the deplorable ignorance of his subordinates; that if these had, like him, received the inestimable advantages of a logical education, they would have known at once that what he really meant was, 'If he is a spy, he must be shot'? The argument in defense of the traditional wording of the syllogism is exactly parallel." Now, in reference to this illustration, I take it that, before the fact of his being a spy or not had been established, the general or any one else could only state the situation hypothetically, "If he is a spy, he must be shot." But when the evidence is all in, suppose the general continues to reiterate indefinitely, "If he is a spy, he must be shot"; and when asked "But what are we to do with the prisoner?" his only reply continues to be, "If he is a spy, he must be shot." Then I say that the general is talking sheer nonsense. The logic of the situation demands that the general assert that the man is a spy and *therefore* he must be shot, or that he is not a spy, and *therefore* need not be shot. The potential of logical implication always rests upon a hypothetical relation. The logic of an actual situation or relation cannot remain merely hypothetical.

3. There is also a discussion at some length concerning the traditional treatment of distribution of terms in a syllogism. Mr. MacColl attempts to prove that the distinction between a distributed and undistributed term is misleading. He says: "The leading syllogism *Barbara*, must hold good whatever values (or meanings) we give to its constituents X, Y, Z . It must therefore hold good when X, Y, Z are synonyms, and therefore all denote *the same class*. Now consider one of the premises, say, 'all x is y .' Here, by the usual logical convention, the class X is said to be 'distributed' and the class Y undistributed. But when X and Y are synonyms, they denote the *same class*, so that the same class may at the same time and in the same proposition be both 'distributed' and 'undistributed.' Does not this sound like a contradiction?" No, most certainly not, if the significance of the terms 'distributed' and 'undistributed' be clearly understood. To say that a term is distributed means that from the very form of the proposition it is rendered explicitly determinate as a universal; to say that a term is undistributed does not, however, mean that the form of the proposition renders it explicitly determinate as a particular. The universal affirmative proposition, 'all X is Y ,' does not by any means determine the predicate as particular; it merely leaves it indeterminate. The subject is necessarily universal; the predicate term is not necessarily universal. Mr. MacColl throughout labors under the mistaken idea that the form of a proposition is entirely

independent of its material content. He forgets again and again that mere form without any indication of content may give you certain information; but that, when you fill out the symbols with actual significant terms, your information concerning the meaning and scope of that proposition must be materially changed, and the form of a proposition will itself vary as the significance of its terms varies. The one is so essentially the function of the other that to regard the one apart from its relation to the other is a separation needlessly artificial and misleading.

4. Again, the author objects that the traditional rules of the syllogism regarding the undistributed middle and the illicit process of the major or the minor terms do not hold invariably in the symbolic logic. He cites as an exception the following inference which is valid and nevertheless follows from an undistributed middle.

“If every X is Y , and every Z is also Y , then something which is not X is not Z .” This reasoning, however, while in the form of syllogism, is not a syllogism; for in addition to the three terms X , Y , Z , which constitute the syllogism proper, there have been introduced two additional terms, the contradictory of X and the contradictory of Z . Mr. MacColl’s strictures upon the syllogism are based throughout his discussion upon a mistaken idea of what a syllogism is. The syllogism has three terms and only three terms. There are extra-syllogistic forms of reasoning in the general guise of a syllogistic form, but they are not syllogisms. Mr. MacColl’s criticisms are quite correct concerning these pseudo-syllogisms, but they do not in the remotest manner touch the syllogism in its proper and true form.

Unlike Mr. MacColl’s work, that of Mr. Shearman does not attempt the formulation of any system. His purpose is to indicate the fundamental principles of symbolic logic and their historical development. He traces the line of development from Boole to the most recent contributions of Frege, Peano, and Russell. Mr. Shearman’s treatment of the subject is determined by his general postulate that there is one logical calculus and that all the several authors on the subject have been working toward one and the same end. Mr. Shearman’s account of the principles of the symbolic logic is clear and illuminating. His work serves the purpose of an excellent orientation of the subject.

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The Life of Reason, or The Phases of Human Progress. By GEORGE SANTAYANA. New York, Charles Scribner's Sons, 1905-6. — Vol. III, pp. ix, 279; Vol. IV, pp. ix, 230; Vol. V, pp. ix, 320.

The first two volumes of this work, "Reason in Common Sense" and "Reason in Society,"—which define the author's point of view and indicate the general nature of the undertaking,—have already been noticed at some length in THE PHILOSOPHICAL REVIEW (Vol. XIV, pp. 602 ff.). The remaining volumes have the titles: "Reason in Religion," "Reason in Art," and "Reason in Science." It will hardly be necessary to examine these in detail; for Professor Santayana has by no means attempted to write a systematic treatise, and, moreover, the first two of these last three volumes are on subjects which he has already treated almost, if not quite, as adequately in his earlier volumes, *Interpretations of Poetry and Religion* (1900) and *The Sense of Beauty* (1896). (For critical notices, see this REVIEW, Vol. IX, pp. 531 ff., and Vol. VI, pp. 210 ff.)

Indeed, these later volumes, though containing much that would be interesting, if Professor Santayana had not already made us familiar with his point of view and characteristic method of treatment, are something of a disappointment. It is not easy to see exactly for what class of readers they are intended. Much might be said for a really popular philosophical treatment of the highly interesting problems considered; but, as a result of his almost ostentatious attempt to neglect technicalities and put everything in literary form, the author has produced three volumes of more or less consecutive essays which are by no means as uniformly intelligible as they might appear to be, on superficial examination.

Not that the technical reader will encounter real difficulties, though he must be prepared for a good deal of vagueness even where this seems wholly unnecessary; but he is likely to become restive, after a time, when he glances back through chapters of graceful prose, and attempts to define more clearly the drift of the argument as a whole. On the other hand, the general reader, for whom the volumes seem intended, is in serious danger of getting lost altogether. No references are given, no names of recent writers are mentioned; even the names of the classic philosophers of modern times appear in the text only as the rarest exceptions. So far from conducing to clearness, this ultra-literary reticence is a real hindrance, in any case; and the allusions to philosophers and systems are sometimes so vague as to amount to substantial inaccuracy.

Moreover, in aiming, as he doubtless does, at a more systematic and comprehensive treatment of religion and art than that given in the earlier volumes mentioned, Professor Santayana partly sacrifices the essential privilege of the essayist, *i. e.*, the privilege of confining himself to the subjects that most appeal to him, and with which he is most competent to deal. As a result, the most interesting of the three volumes under consideration, "Reason in Religion," hardly compares favorably, either in directness of treatment or charm of style, with the very interesting earlier volume, *Interpretations of Poetry and Religion*, the suggestiveness of which was hardly the less on account of its rather questionable fundamental thesis, that "religion and poetry are identical in essence, and differ merely in the way in which they are attached to practical affairs." The suggestive feature of Professor Santayana's treatment of religion, in both its earlier and its later form, is his constant insistence upon the perverse tendency of dogmatism to transform spiritual meanings and values into mythological statements that purport to tell of matters of fact. But in this present volume, as well as in the *Poetry and Religion*, there is an over-emphasis of the negative side of the argument; for it is not clearly pointed out that, even in ordinary, concrete experience, the teleological side is quite as 'real' as the merely existential; and that the two can be separated only for purposes of conceptual thought or ideal constructions of whatever kind. Moreover, when thus separated, the ideal constructions in teleological terms are likely to explain fully as much of the 'real' of actual experience as the corresponding constructions in merely existential terms. Otherwise our highest human ideals would vanish into thin air when discovered to be ideals; for certainly no ideal, whether of morality or religion, is worthy of serious consideration if not deeply rooted in the 'real.'

Unfortunately the last volume, "Reason in Science," — the only one of these last three volumes in which the author enters a new field, — is perhaps the most disappointing of all. The very qualities which make Professor Santayana so suggestive a writer on some of the collateral problems of philosophy seem partly to unfit him for the more technical treatment of philosophy in its relations to science. And let it be said, once for all, that no fairly adequate treatment of this extremely important problem can possibly neglect technicalities that concern the essential methods of the sciences and disciplines in question. Throughout this volume we find much of the literary man's dissatisfaction with what is apt to seem to him the unimaginative procedure of science; but there is no adequate discussion of the essential limita-

tions of the method of the physical sciences, when applied to human experience as a whole. Too often appreciations, — by no means uninteresting, in themselves, — are made to serve as arguments; and, when arguments are forthcoming, they not infrequently take a dubious direction. For example, the author says: "Science is a half-way house between private sensation and universal vision. . . . The critics of science, when endowed with any speculative power, have always seen that what is hypothetical and abstract in scientific method is somehow servile and provisional" (pp. 20, 21). This, surely, is to attack not the weakness, but the strength of science; for the existence of "what is hypothetical and abstract in scientific method" is simply an indication, on the one hand, of the increasing definiteness of scientific problems, and, on the other hand, of our growing comprehension of the true nature and significance of the postulates and methods employed. It is only when these absolutely necessary abstractions of science are wrongly interpreted or applied, that they invite criticism. The author, indeed, adds: "In transcending science, . . . we must not hope to transcend knowledge, nor in transcending selfishness to abolish finitude" (p. 21). But this is the very reason why we cannot afford to speak in a patronizing way of the "hypothetical and abstract in scientific method." As finite beings, whether in our theoretical or in our practical capacity, we must always be guided in the last resort by general principles; and even if these general principles permit of being stated as universals, they can only be 'hypothetical universals,' in the technical sense of modern logic, — though this is far enough from saying that all sciences and disciplines are equally abstract in their dealing with reality.

Instead of being guided, in his classification, by the technical problems that have arisen in recent times regarding the relations of the several sciences to each other and to philosophy, — problems which naturally could not have arisen before these sciences became differentiated and developed, — Professor Santayana prefers the characteristic division of Ancient Philosophy. He says: "Following ancient usage, I shall take the liberty of calling the whole group of sciences which elaborates ideas *dialectic*, and the whole group that describes existences *physics*" (p. 29). It will readily be seen that this distinction, however inevitable for certain important schools in Greek Philosophy, is ill calculated to serve our more definite purposes at the present time. Indeed, the problem of the relation of the ideal to the real has shifted to such an extent in the course of the development of Modern Philosophy, — including quite recent philosophy, — that

the arbitrary retention of the ancient classification tends seriously to confuse essential issues. Perhaps this may partly explain misleading statements like the following: "Anyone who can at all catch the drift of experience — moral no less than physical — must feel that mechanism rules the whole world. . . . If a principle is efficacious it is to that extent mechanical" (p. 76). It is only fair to say that passages like this, taken by themselves, would give a very wrong impression of the author's philosophical position; but they illustrate only too well the danger of neglecting the problems and methods of contemporary philosophy. Other passages, really more characteristic, are often illuminating. For example, in writing of "The Nature of Intent," Professor Santayana says: "Feelings and ideas, when plucked and separately considered, do not retain the intent that made them cognitive or living; yet in their native medium they certainly lived and knew" (p. 173). And again: "To ask a thinker what he means by meaning is as futile as to ask a carpenter what he means by wood" (p. 183). Quotations like these might be multiplied; but the failure always is to carry out to some definite and convincing conclusion the suggestive, but fragmentary insights with which the book abounds.

This criticism applies particularly to the chapters on "Prerational Morality," "Rational Ethics," and "Post-rational Morality," with which, — except for a very slight chapter on "The Validity of Science," — the volume ends. The author's general position, though picturesque enough to lend itself readily to literary treatment, is extremely vulnerable from the point of view of ethical methodology. In fact, it is wholly characteristic of Professor Santayana's habit of mind, that throughout these chapters the very existence of modern ethics is all but ignored. We are told: "When morality is . . . non-dialectical, casual, impulsive, polyglot, it is what we may call prerational morality. . . . On this stage, in the moral world, are the judgments of Mrs. Grundy, the aims of political parties and their maxims, the principles of war, the appreciation of art, the commandments of religious authorities, special revelations of duty to individuals, and all systems of intuitive ethics." But, again: "Prerational morality is vigorous because it is sincere. . . . It is hardly too much to say, indeed, that prerational morality is morality proper. Rational ethics, in comparison, seems a kind of politics or wisdom, while post-rational systems are essentially religious" (pp. 211, 212).

If "prerational morality," or "morality proper," possesses so little internal organization, it is difficult to see how that "dialectic of the will . . . which, for want of a better name, we must call ethics

or moral philosophy" (pp. 213, 214) is able to make a beginning at all. But the author says later: "A truly rational morality, or social regimen, has never existed in the world and is hardly to be looked for. . . . In lieu of a rational morality, however, we have rational ethics." And yet, apparently, we can recognize as "rational ethics" only what was "founded by Socrates, glorified by Plato, and sobered and solidified by Aristotle" (pp. 239, 240). The only reference to "modern rational ethics . . . or what approaches most nearly to such a thing," is a belated concession to the ameliorating influence of Christianity,—followed by a very brief, but somewhat effective exhibition of the weak side of 'utilitarianism', which, however, is described as "the only modern school of ethics which is humane and honestly interested in progress" (p. 256).

The reader will be prepared to learn that "post-rational morality" is a term comprehensive enough to include the most of what we ordinarily mean by religion, philosophy, and modern ideals generally,—as well as what came after Aristotle in Greek Philosophy. The treatment of this portentous subject is rather half-hearted, as might be expected. "When Socrates and his two great disciples composed a system of rational ethics . . . they were merely writing an eloquent epitaph on their country. . . . The biographer of reason might well be tempted to ignore the subsequent attitudes into which moral life fell in the West, since they all embodied a more or less complete despair" (pp. 262, 263). "Socrates was still living when a school of post-rational morality arose among the Sophists, which . . . settled down into Epicureanism and has remained the source of a certain consolation to mankind, which if somewhat cheap, is none the less genuine" (p. 268). Not only the Epicureans, however, but the Stoics themselves, it seems, come under the "post-rational" ban. "Despair, in this system, flooded a much larger area of human life; everything, in fact, was surrendered except the will to endure whatever might come" (p. 272). There follows a very cursory mention of Islam, pantheism, and Neo-Platonic morality; and finally Christianity is somewhat ambiguously described as "a system of postponed rationalism, a rationalism intercepted by a supernatural version of the conditions of happiness" (p. 283). Even here, however, we are still adrift; for, we are told: "Christianity, even in its orthodox forms, covers various kinds of morality, and its philosophical incoherence betrays itself in disruptive movements, profound schisms, and total alienation on the part of one Christian from the inward faith of another" (pp. 286, 287).

Such is the gloomy picture of Post-Aristotelian and modern ideals, drawn by one who, though otherwise free from Scholastic prepossessions, appears to hold that Aristotle was, — if not the only, — at any rate the last philosopher really worthy of the name. But it is to be remembered that “Reason in Science” is a subject that has only recently engaged the attention of this gifted writer; and it is to be hoped that the pessimism so frankly expressed may be in part dispelled, when the author becomes more familiar with and sympathetic toward what, for better or for worse, have come to be recognized as the essential problems of Modern Philosophy.

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Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythos und Sitte. Zweiter Band, Mythos und Religion. Erster Teil. Von WILHELM WUNDT. Leipzig, Wilhelm Engelmann, 1905. — pp. xi, 617.

In this first part of a treatise on the psychology of myth and religion, we have a further instalment of Wundt's monumental work begun several years ago with a voluminous treatise on the psychology of language. The professed aim of ‘Völkerpsychologie,’ it should be remembered, is primarily psychological, to develop insight into psychological processes rather than to set to rights the sciences which furnish the material for the study by the application to the phenomena of psychological principles already elsewhere established. Still it is Wundt's view that the problems of these other sciences cannot all be satisfactorily solved without psychology, notably the genetic problems; and it is clear from his method that he considers the principles to be applied already in part at least established elsewhere, namely, in experimental psychology. The processes here in question are those of the myth-making imagination. Myths are evidently the product of the imagination, or phantasy, as Wundt prefers to call it, and the question is, What is the nature of this function? What light is thrown upon it by the phenomena of the myth, and what light does an understanding of its nature throw on the origin and development of myths? The present part deals only with the making of myths, leaving, it is to be presumed, the treatment of their development in religion to the part to follow.

Before dealing with the mythologic imagination proper, Wundt devotes two chapters to, first, the imagination (phantasy) in general, and, second, the æsthetic imagination. The elaborate chapter of

nearly four hundred and fifty pages on the latter topic is a sort of psychologic history of art, conceived as a history of the development of the imagination, and should prove of special interest to students of psychological æsthetics, who, unless their attention were called to it, would very likely not suspect so important a contribution to their discipline in a work dealing with myth and religion. The intimate connection between art and mythology is conceived as due to the fact that both express the activity of the imagination, and that the history of art affords a picture of man's views of life, such as mythology and religion preëminently contain, evoked by the interaction of impressions from the outer world and the inner stirrings of man's mind. Hence the need of art to express the motives of myth and religion, and of the latter to enable art to express the full content of human life.

In the first chapter a conception of the imagination is developed on an experimental study of its elementary functions in perceptions of space and time relations and their contents, showing the inevitable modification of the given by subjective factors, and on an examination of the play and drawings of children. The general result is that imagination contains nothing that is not reducible to normal mental functions. This, then, becomes the guiding principle of the whole treatment, that the productive imagination, even in its highest achievements, is only an intensification, or exaltation, of normal mental functions. These functions are those of impression, assimilation, and apperception, with the emotional excitements and impulses involved. The latter, indeed, the emotional and impulsive factors, play a leading rôle in the process. For the essence of the imagination is defined, according to Wundt, — this appears as the conclusion of the study of it in its more elementary forms, — by two principles: (1) 'enlivening apperception,' including what recent psychologists have designated by 'Einfühlung,' the projection into the object of the observer's self in such sort that he feels one with it; and (2) the power of illusion to enhance feeling. By the former of these principles is explained the origin of the works of the imagination, by the latter their tremendous influence. Both, it is held, affect the mental life in all its forms and at every stage of its development.

The characteristic of the mythologic (mythopoetic) imagination is that in it the principle of 'Einfühlung' is carried to an extreme. Here there is such a projection of feelings, emotions, and impulses into objects that they are not merely apperceived with a moderate degree of liveliness, but actually appear themselves animated and personal beings. It is of the very essence of Wundt's theory to conceive this

personification as the immediate and direct way in which, under the given psychological conditions, the objects are apperceived, and to regard it as but a heightened form of that projection of subjective feelings into objects which appears in the most elementary forms of imagination, and again, on a higher level, in æsthetic 'Einfühlung.' He rejects every theory of the myth which would import into it in its origin an element of reflection, as though its content were originally conceived as a symbol or as a primitive scientific theory. The characteristic of all original mythological ideas, he insists, is to appear as immediately given reality. It is not, accordingly, a 'theory' to the primitive man that the image seen in a dream, or that the last breath of the dying, is the soul of the person represented or seen, but immediately apprehended fact. This fact of immediately given reality is the *primum movens* of all further construction. With it is connected, in the second place, the unrestrained power of association, unrestrained because its inhibitions only come from more developed thought. Thus the quality of animated reality attached to the first object may be attached to other objects associated with it; the soul-breath is associated with moving clouds, animated clouds with the flight of birds, with departing ships, with the rising and setting sun, etc. Hence the myths of the bird of death, the ship of souls, and the various myths connecting souls with the sun. The associations aroused include those that obtain between the subjective feelings and impulses and the objective contents of consciousness. The resultant of the fusion and assimilation of the objective and subjective elements is apperception. The three complex factors into which the mythologic imagination is resolved are, accordingly, impression (of objective reality), association, and apperception. These, however, denote not separable factors, but one and the same process in three aspects. The process is called an impression, when we more particularly consider the associations between the new elements entering consciousness; association in the narrower sense, when we consider the connections of these elements with previous experiences of the same consciousness; apperception, when we consider the combination of all these factors in one resulting function of consciousness (p. 589).

This view of the myth as the immediate content of an apperception in which subjective qualities are so projected into the object as literally to animate and personify it, is supplemented by the view that it is the product, not of the individual, but of the general, community consciousness. Even if we assume that it originated with an individual, it must lose its individual character and be adopted by the community

as an adequate expression of its thoughts, feelings, and interests in order to figure as a myth. This is what distinguishes it, according to Wundt, from poetry. Poetry is the product of individuals and bears the marks of its individual authorship. The myth is the product of the soul of the community. This distinction enables us at times to analyze out the original mythical element in a myth from later accretions and modifications. Where, for example, the myth appears in the form of a story with particular local or temporal setting, as in theogonic and cosmological myths, there, thinks Wundt, we may safely assign to the individualized part of it an individual origin. But it is impossible to draw any hard and fast distinction. As long as poetry remains on mythological ground, the only difference between myth and poetry is that the latter, as an individual creation, carries out in a connected way what the mythologic imagination had begun in looser images (p. 616). Similar allowances must be made for the symbolic elements in a given myth; for, while insisting that the myth proper has no sort of symbolic character at the beginning, Wundt regards it as equally important to note that it carries with it a tendency to become symbolic.

The work shows all the masterly qualities that we have learned to expect in a writing of Wundt's and gains in interest as it advances. We may complain perhaps of its length, and fancy that the same thing might in many cases have been said in fewer words; and we may regret that, in propounding a theory of the myth, the argument at that special point should remain so much in the abstract and so little avail itself of concrete illustrations. This latter defect, if it be one, may perhaps be remedied in the part still to be published. Meanwhile we may cordially recognize the great value of an attempt to find in the tangled labyrinth of mythology the operation of nothing but recognized psychological processes. To be sure, Wundt's solvent 'apperception' will not seem equally satisfactory to all readers. Granting the normal tendency to 'Einfühlung,' one may still ask why some objects are mythically apperceived, apperceived, that is, as animated and personal, and not all; why, for example, some stones are made fetiches, and not all stones indiscriminately. Or is every object at first apperceived in this way? Wundt seems to say that it is. Genetically, he says, mythological apperception comes first, then æsthetic, finally ordinary 'transcendental' apperception, an order which philosophy is wont to reverse (pp. 580 f.). This, no doubt, offers a consistent theory, but is it uniformly the fact? As to apperception itself, it appears throughout this work primarily as a unifying

function. The Kantian doctrine is criticised, but the term 'transcendental' is allowed to remain as indicating that the apprehension is an act of will which carries over into the object the unity which is a fundamental characteristic of the subject, and in this sense apperception is regarded as an irreducible logical postulate. But, in actual mental life, this form of apperception is always mixed up with the forms of the like function possessing richer content. Æsthetic feelings are constantly being interjected into the normal course of our objective perceptions, and this æsthetic apperception may pass into mythologic (p. 581). It itself, finally, is described as an 'act of will,' but also as the resultant of the associations between the different elements of the content, a function comprehending alike the objective contents and the feeling-elements of the consciousness (p. 589). This is presumably not quite the same as the old associationist doctrine, though the language suggests something not essentially different. That 'apperception' should be at once an 'act of will' and a resultant of associations may be consistent with Wundt's peculiar terminology, which enables him, *e. g.*, to define an act of will as a sudden change of content in idea and feeling terminating an emotion (*Grundriss*, p. 215), but it is a little perplexing to the average student. And it is perhaps a little unfortunate, that what appears to be so characteristically a process of fusion and assimilation of contents of present consciousness with organized material and impulses of preëxisting dispositions, should have to be described by a term so implicated with the suggestions of an antiquated psychological theory.

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NOTICES OF NEW BOOKS.

Greek Theories of Elementary Cognition from Alcmaeon to Aristotle. By J. I. BEARE. Oxford, The Clarendon Press, 1906. — pp. vii, 354.

The present volume should be of the greatest service not only to Greek scholars, but to all psychologists who take an interest in the history of their science. There have been useful works on the history of Psychology,—unfortunately, none of them in the English language,—but it is only within the last thirty years that materials have been made available for a really trustworthy history of the first beginnings of the science among the Pre-Socratic philosophers of Greece. Until the publication of Diels's *Doxographi Graeci* in 1879, it was impossible to distinguish with any confidence between the trustworthy and untrustworthy elements in the later classical tradition as to the doctrines of the Pre-Socratics, while the first satisfactory complete collection of the actual fragments of these earliest men of science is the same scholar's *Fragmente der Vorsokratiker*, of which the first edition did not appear till 1903. (Vol. 1 of ed. 2 was issued in the summer of the present year.) Hence psychologists, who are not also usually Greek scholars, have hitherto had to depend for their knowledge of the beginnings of their subject upon compendia dating from a time when the first requisites of a really critical history of the science were not in existence. This is, no doubt, why the statements to be found in treatises on Psychology as to the theories of the Greeks are almost always such as no competent Greek scholar can tolerate.

Professor Beare is exceptionally fitted for the task he has undertaken by the fact that, besides being a sound Greek scholar, he is also well acquainted with modern Philosophy and Psychology, having occupied the chair of Moral Philosophy in Trinity College, Dublin, before his appointment to his present post, that of Professor of Greek in the same institution. In the present work he treats only one department of Greek Psychology, the theories of sense-perception held by Greek men of science from Alcmaeon of Crotona, the originator of sense-physiology, down to Aristotle. In arrangement the work falls into three sections. We have, first, an examination of the various theories of the perceptions of the several senses, next a discussion of the qualities ascribed by the early philosophers to sense-perception in general, and finally, a most valuable account of the development of the doctrine of what Aristotle called "common sensation," *i. e.*, the faculty of synthesis implied in perception and imagination of objects. This last division, naturally enough, is mainly concerned with the doctrines of Aristotle himself, almost resolving itself into a learned monograph upon the Aristotelian theory of imagination and memory. Professor Beare's

treatment of Aristotle is indeed throughout so excellent that it inspires only one regret, that he has not promised a companion study of the great philosopher's psychology of rational thought. I must particularly commend his elucidation of the deep significance of the well-known Aristotelian definition of sensation as a *δύναμις κριτική* and his exhaustive account of the same philosopher's remarkably 'modern' discussion of memory. Psychologists who have little or no knowledge of Greek will be particularly thankful to Professor Beare for the liberal use he has made throughout his treatise of the collection of psychological essays known as the *Parva Naturalia*; most of Aristotle's detailed views on sense-perception and imagination are more fully presented in these monographs than anywhere else in his writings, but unfortunately they had not previously been made properly accessible to the merely English student.

In a work in which the citation and discussion of actual texts necessarily plays so large a part, there are sure to be passages about which the view of an individual author is open to dispute, and I have noted a few such cases where Professor Beare appears to me to adopt a doubtful reading or translation. I will only mention here, however, one or two expressions in the version given of Plato's account of vision which appear to me to involve actual mistakes as to the sense or construction of the Greek text. On p. 45 the author, apparently following Mr. Archer-Hind, renders a passage from the *Timæus* as follows (*Timæus*, 45 B.): "That part of fire which has the property of not burning, but yielding an innocuous light, they contrived to fashion into a substance homogeneous with the light of day. For the fire within us, being twin with this, they caused to flow through the eyes in its pure form, smooth and dense, having constructed the whole, and especially the central part of the eyes, in such wise as to confine all the remainder." This translation seems to me, as to Professor Cook Wilson in his essay on *The Interpretation of Plato's Timæus*, to involve a double error as to construction. In the first sentence, the clause *οἰκεῖον ἐκάστης ἡμέρας* should probably be construed not with *σῶμα*, but with *ὄσον*, and in the second, the sense absolutely requires that *λείον καὶ πυκνόν* should be regarded as agreeing with *ὄλον*. Translate, "the kind of fire specially appropriated to the light of day, *i. e.*, the kind which has the property of yielding an innocuous light without burning, they fashioned into a body. For they caused the fire within us, being twin with this, to flow through the eyes in a pure form, constructing the whole, but more especially the central part, of the eye so as to be smooth and dense in such wise as to confine all the remainder." There is a minor slip in the translation of the concluding sentence of the same passage (p. 46); what Plato means to say there is not that in the dark the visual stream "becomes no longer *homogeneous*" with the surrounding air, but that it "no longer *coalesces*" with it.

In note 3 to p. 107 it should have been noted that the remark quoted from the *Placita* to the effect that articulate speech (*φωνή*) is so-called be-

cause it φωτίζει τὸ νοούμενον, 'illustrates (or illuminates) one's thought,' is meant for an etymology. The writer is deriving φωνή from φῶς (light) and νοεῖν (to think).

In the account of Plato's classification of tastes (p. 173), the oily tastes should have been ascribed to bodies which *divide* (not *dilate*) the visual current.

The note about Empedocles on p. 204 would gain by a reference to *Emped.*, l. 199 (Stein), the actual words upon which the criticism of Aristotle discussed by Professor Beare appears to be founded.

It is not clear what the author intends when he says on p. 208 of Anaxagoras that he *necessarily* regarded sensation as due to the action of unlike on unlike in consequence of his theory of the absolute contrast between mind and all other things. As Professor Beare correctly remarks on the very next page, the *unlikes* of Anaxagoras' theory are both *physical*; hence the contrast between mind and other things has no logical connection with the further assumption of contrast between the perceiving organ and the perceived object as required for sense-perception.

In *Timaeus*, 43 B-D (quoted on p. 212), there is, of course, a suggested derivation of the word αἰσθησις (sensation), but I do not think it can be that supplied by Professor Beare from ἀσθμαίνεω (to gasp). Plato's language clearly requires us to think of a word indicating rapid motion; αἰσθησις is so-called because of the vehement motions with which stimuli from without affect the percipient. Hence Martin's view that the intended derivation is from ἀττοσεω (to rush, to shake) seems to me pretty obviously right.

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Leib und Seele : Darstellung und Kritik der neueren Theorien des Verhältnisses zwischen physischen und psychischen Dasein. (Natur- und Kulturphilosophische Bibliothek, Vol. IV.) Von RUDOLF EISLER. Leipzig, J. A. Barth, 1906. — pp. vi, 217.

Dr. Eisler has given us an excellent analysis of the problem and an almost exhaustive summary of theories in a book of rare clearness and structural beauty. While we do not think he has proved his thesis, we think its defense could hardly be better conducted. The preface states his general position, — parallelistic monism (p. i), external nature being regarded as the manifestation of inner spiritual activity (p. vi). In the brief introduction, after some discussion of method, he divides his problem into two: (1) the qualitative and numerical relations between mind and body: are they alike or different, one or two? and (2) their functional relation: are they causally connected or not? Dualism, materialism, and the identity-theory answer the first; interaction and parallelism the second.

The main body of the work defines and criticises these answers in four chapters, with a final chapter on immortality. The chapters are alike in structure: definition of about every form of the theory discussed, a brief

historical sketch, and criticism, bringing out more and more of the author's view as we go on, till it stands completed in Chapter IV. It is impossible here to do justice to the thoroughness of treatment; only the chief arguments can be indicated.

The kind of dualism which Dr. Eisler accepts may be thus stated: Experience is primary, and consists of contents given to an experiencing subject. These contents, "abstracted from the experience in which they occur" and "regarded as self-existent members of a world-system independent of our choice," constitute the physical. Viewed as "found in the individual unity, the subject" (p. 14), they are psychical. In formulating these definitions, Dr. Eisler fails to consider the merits of those functional definitions (Dewey, Meade, and others) which derive the psychical from tentative action and failure. To continue: The unity, or subject, is a real soul but no simple essence; considered "from the point of view of objective contents" (p. 23), it is the body. It is more than a bundle of states, in that it tends to preserve itself (p. 19). It is *the* reality and the condition of all reality. "Dualism, in the sense of two ways of regarding, or two appearances of, one and the same reality, is not to be contested" (p. 30).

Chapter II, "Materialism," accuses many idealists of psychological materialism, for placing all causation on the physical side (p. 41). The familiar objections against materialism are exhaustively resumed. Psychological analysis does not, like physical, give "unreal fictions"; for the psychical qualities, though never isolated, are "real constituent parts" (p. 57) of experience. Here appears the primacy and efficacy of the psychical. Psychology must "explain the law and causation immanent in spiritual life" (p. 58). "No one who appreciates frankly the standpoint of inner experience, can contest the right to assume psychical causation" (p. 62). Such causation is of the subject, not of one content among others (p. 65). The argument here seems weak, in not defining causation before deciding that it belongs to the subject as such.

Chapter III, on the "Identity-Theory," defines it as "any monistic view . . . according to which one and the same being or event . . . is in one relation psychical, in another physical" (p. 67). This view Dr. Eisler accepts. "The spiritual . . . as experience, subject and subject-activity, is not mere phenomenon . . . but is and has absolute reality itself" (p. 91). The self is the *Urbild* of all transcendent external reality. We speak of forces in the physical world, in analogy with ourselves as active. All reality is spiritual force-centres; the physical is these force-centres viewed in relation to each other, "a bridge between subject and subject" (p. 96). Nature is "a sum of mechanised impulse-reactions" (p. 108), and "the soul of the organism is the will" (p. 109). Interaction is only between the impulsive-mechanical and the intelligent will-activities (p. 110). The psychical and physical as such cannot interact. "This psychophysical parallelism is the necessary consequence of the identity-theory" (p. 110).

Chapter IV, "Interaction and Parallelism," bases the decision on four

theses in addition to the above arguments: (1) The dissimilarity of psychical and physical; (2) the principle of closed physical causation, — a postulate of "highest regulative-heuristic importance" (p. 140), which, however, we fear many defenders of interaction do not feel bound to make; (3) the conservation of energy; and (4) the correlation of physical and psychical. The psychical is not cause, but ground, of the physical. "Supra-phenomenal grounds are determinable not only in the organic field, but for *all* phenomena" (p. 146). Ground and phenomenon can always be found, if we know how to look for them, though Dr. Eisler defends no "picture-parallelism" (p. 164). Value cannot be physiologically represented as value in the brain, but purposiveness corresponds to the most intense and concentrated brain-activity. Psychical unification corresponds to the unity of the physical organism "represented and centered in the central nervous system" (p. 169). Every living body has "definite, self-existent, relatively independent forms of reaction" (p. 173); a spontaneity in mechanism. To mechanical analysis must be added teleological interpretation.

Chapter V, on "Immortality," decides for a "subpersonal" immortality, *i. e.*, a man lives after death not personally, but in "the persistence of those psychical inner states belonging to the elements into which the organism falls after death" (p. 199). "Nothing which the I has felt, thought, striven for, is not, in the effects of the individual spirit on other spirits higher and lower, somehow continued" (p. 200). There is, too, immortality in that we are eternally present to the mind of a timeless Absolute (p. 203).

It is impossible to do justice to the thoroughness of the treatment in a short resumé. While some of Dr. Eisler's arguments seem to need further support, — *e. g.*, his doctrine of psychical causation, his acceptance of closed physical causation as an ultimate postulate, and especially his lack of analysis of teleology, — yet we think the book invaluable to a student of the problem, for statement and classification of the arguments. It is to be hoped that it may be translated, as it would make a serviceable textbook on its special problem.

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On Life after Death. By G. T. FECHNER. Translated from the German by H. WERNEKKE. Revised Edition. Chicago, Open Court Publishing Co., 1906.— pp. 134.

Individuality and Immortality. By WILHELM OSTWALD. Ingersoll Lecture. Boston, Houghton, Mifflin & Co., 1906.— pp. 74.

The Evolution of Immortality. By C. T. STOCKWELL. Fourth Edition. Boston, James H. West & Co., 1906.— pp. 170.

The three discussions of the doctrine of immortality above named represent totally different standpoints and reach very different conclusions. Fechner first published his well-known essay, *Das Büchlein vom Leben*

nach dem Tode, in 1835 under the pseudonym of Dr. Mises. The second edition was published under his own name, supposedly as representing his serious philosophical beliefs. A fifth edition appeared in 1903 after his death (1887). Fechner had an interesting personality, in which strongly antithetical elements were present; he was both rigid scientist and mystic. These two aspects of his mind are exhibited in the physical and psychophysical writings, on the one hand, and, on the other hand, in the imaginative, emotional, and even phantastic writings under the pseudonym of Dr. Mises,—“*On the Comparative Anatomy of Angels*” (1825), “*Proof that the Moon is Made of Iodine*” (1821), “*The Four Paradoxes*” (1846). In his *Nanna, or the Soul-Life of Plants* (1848, published under his own name), he assumed that plants, as well as men, have souls, or rather, like men, are body and soul in one; the body and soul are only different aspects of a single being. So, also, he proceeded to enlarge the conception by ascribing to the celestial bodies a soul. Indeed, the whole universe is alive, a sublime organism with an inner life. In the *Zend-Avesta or Things of Heaven and the Hereafter* (1851), he says that the Earth-spirit is not merely an aggregation of all the spirits of the Earth, but is a higher individual spirit, a conscious union of subordinate spirits within its sphere. So in turn all the spirits of the stars belong to the still more inclusive spirit of the universe, *i. e.*, the divine spirit. The divine spirit is one and all-conscious. When a man dies, his spirit will not be absorbed into the higher spirit, out of which it became an individual spirit. Its relation to the higher spirit will become clear and conscious. Our present life is a perception-life; our future life will be a reminiscence-life, a life of recollection in God. As the sense-perception is not lost when it is taken up into the consciousness of the individual, so the individual consciousness is not lost when it is taken up into the consciousness of God. Only human souls have the higher consciousness of past and future, while plants and animals are bound to the present. The relation in which God stands to the universe is analogous to the relation in which the spirit of man stands to his body; God is not without body (the world is God’s body) and there is nothing psychical apart from a physical, so the soul in a future life is not bodiless. “The human soul is spread throughout the body; when the soul departs, the body decays. In death, it will wander beyond our body, like a man who, having had his little house destroyed, wherein he moved about for years, leaves it forever to wander to distant countries” (p. 99). In the second stage the soul passes to the wide life of the Earth-soul and in the third stage to God. “Thus your whole earthly *life of perception* in God will be gone one day, but a higher *life of recollections* in God will have arisen out of it; and as your recollections move and associate within your head, the spirits of the hereafter move and associate within the Divine head. It is only one step higher on the same ladder, which does not lead to God, but higher up in God, who holds within himself top and bottom of that ladder” (p. 109).

Ostwald's essay is the Ingersoll Lecture at Harvard University for 1906. The author bases his view of survival on the psychology of memory and the persistence of the most general entity we know of in the physical world (p. 22), viz., energy. In science "no predictions of any kind which relate to infinite time or to eternity are possible. For a limited time predictions are possible, but never with absolute certainty. They are in every case subject to a certain probable error, which is dependent on the nature of the case, but increases invariably with the length of time over which the prediction is extended" (p. 36). This holds true with regard to the eternity even of energy and mass. "From what I know of science I have the impression that energy will outlive everything else in the Universe. I should not feel justified in saying more than this" (p. 35). By virtue of the property of memory, "organisms form classes and species . . . for no animal would keep a constant form or constant habits, if the repetition of an act already performed were not easier than doing something else" (p. 10). But while identity or individuality is dependent on memory and heredity, we have, on the other hand, the fact that diffusion, or homogeneous distribution of energy is the general aim of all happenings (p. 43), and this law of diffusion is apparently valid not only for the physical world, but also for human development. The single cell loses in individuality, but gains in duration by partition. The individuality of a living man is an ever changing one. In advanced age one has become a different individual from the individual of youth, and these changes apply to both body and mind. The "individuality of a man consists only in the *continuity* of his changes." After death, the individual leaves behind him certain changes impressed on the world by his personality and work, — a house, a book, a fortune, children. "These relics are wholly personal or individual, and depend on the man who caused them; only their effect is not alone determined by this, but also by the person or thing on which the effect is impressed. Such effects may last a longer or a shorter time, but they finally die out asymptotically into imperceptibility" (p. 54). So, too, the family and race, which are individuals of a larger size and are possessed of the instinct of self-preservation, die out asymptotically by diffusion into the greater mass of general existence. As to the ethical aspect of this doctrine of limited survival in the form of posthumous influence, Ostwald thinks it is a sorry and inefficacious way of influencing men to ethical action by holding before them the hobgoblin of eternal punishment. The fact that there is inherited perfection as well as inherited taint, the fact that every advance made toward our own perfection by the sweat of our brow is an inheritance for our children and children's children (p. 74), make this view of survival the grandest "perspective of immortality" that Ostwald can think of.

Stockwell's discussion of immortality is based, in the first place, on the biological analogy of cell-history, in which death signifies birth into a new life. The transforming process is mistakenly called death (I am quoting the writer's opinion); it is really the condition of an evolving life. The

discussion is based, in the second place, on the spiritual identity between God and man in point of essential nature, *i. e.*, our author starts with the assumption that our life originates in the Life of God and forms part of the Infinite Life, and is therefore coëternal with it. In the appendix to the fourth edition, which forms the last chapter of the book as now printed, the author seems to identify God with the sum of etheric energy or the sum of cosmic life (p. 169), which he calls the subjective side of cosmic matter. The physical world or cosmic body is the objective or substance aspect of etheric life, in which it expresses its energy. There is no life and no soul without body, no energy without a substance, so no cosmic energy without a physical world, *i. e.*, the world is an energy-charged organism. In this there is no room for death, which would be the annihilation of energy, but only for transmutations of life. These seem to the reviewer to be the fundamental ideas in the volume, but the relation between the individual life and the absolute life is not intelligibly made out, the leaps in the argument from energy to world life, from world life to pantheism are startling, and no adequate reason is advanced for the persistence of individuality in the processional of life's mutations. However, it is only fair to say that the author explicitly disclaims any attempt to present scientific demonstrations, and he has certainly succeeded in putting before the reader many interesting thoughts.

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Einleitung in die Philosophie. Dritte Auflage. Von WILHELM JERUSALEM. Wien und Leipzig. Wilhelm Braumüller, 1906. — pp. xvii, 249.

This is the third edition of a short Introduction to Philosophy which Professor Jerusalem, the author of *Die Urteilsfunktion*, first published in 1899. With the exception of the section on Genetic and Biological Æsthetics, which has been entirely rewritten to express the author's present convictions on the subject, no serious changes have been made in the text. The book discusses the fundamental problems, methods, and movements of the philosophical sciences (psychology, logic, theory of knowledge, metaphysics, æsthetics, ethics, and sociology) in a simple, clear, and interesting manner, and is well suited for its purpose.

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La morale scientifique: Essai sur les applications morales des sciences sociologiques. Par ALBERT BAYET. Paris, Felix Alcan, 1905. — pp. 180.

The object of this book is to show how the scientific spirit must alter our old conceptions of ethics. The business of ethics is not to work out a code of absolute duties based upon the principle of individual responsibility, but "to ameliorate the moral reality." In order to do this the moralist must study the social and moral facts, and then aim to improve the existing conditions in the briefest and most practical way. Ethics, as a science, is therefore but a branch of sociology, while, as an art, it is a branch of pol-

itics. The proper function of the moral art is to correct the ethical conceptions, on the one hand, and to perfect the social machinery, on the other; that is, to adapt the latter to the demands of the conscience of the groups and to the changing conditions of social life.

The ethicist, in other words, is to choose as his model and example the modern engineer; he is to be a "social engineer." Just as the construction of the smallest machine presupposes a knowledge of physics, chemistry, and mathematics, so the improvement of social institutions presupposes a knowledge of all the sociological sciences. The engineer draws his plans in his office, he puts his invention on paper, and then superintends the construction of the work. So, too, the moralist must think out improvements and then superintend the construction of the new social machine. But he must also prepare the collective mind for the change, just as the engineer must interest the capitalists in his new invention; this is done by advertising; the ethical notions of the group affected are influenced by books, pamphlets, articles, and instruction. Moral instruction in the schools will become a powerful means of realizing the ends; it is an instrument of *rèclame*. Inventors, propagandists, organizers, and legislators will cooperate in utilizing the results of science.

The moral art, being essentially social, will not regulate the inner life of the individual; it will allow the individual to develop freely and spontaneously.

The naïve faith which the author of this book has in the possibilities of sociology reminds one of the eighteenth century *Aufklärung*. If human beings and societies were machines, and we possessed a mathematical knowledge of the workings of these machines, his dream of a "social engineer" might perhaps come true. But this mechanical conception is thoroughly out of place here, and however much we may hope that kings may be sociologists, it is not to be expected that the sociologists will be made kings.

FRANK THILLY.

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Ethik. II. Theil. Von MAX WENTSCHER. Leipzig, Verlag von Johann Ambrosius Barth, 1905.—pp. xii, 396.

The first volume of this work, which appeared in 1902, offers a critical examination of the ultimate standards of all ethical evaluation. In it the author emphasizes his opposition to the tendencies of our age; his system is idealistic, individualistic, and indeterministic. The principle of freedom is made the basis of ethics, and the development of the free personality into a complete self, the ideal. From this principle of freedom, Professor Wentscher holds, all the moral ideals, duties, and rights can be deduced with logical necessity, that is, a *system* of ethics can be erected upon this principle. The construction of such a system is the object of the second volume.

Freedom is not a natural or native possession of man, but something to be achieved. In order to realize itself, the free will must have problems to solve, the personality must have a field in which to exercise itself. Three great spheres of human action are taken up by the author in three books ; they are : the Organization of Individual Life, the Organization of Historical-National Life, and the Organization of Cultural Life. In the First Book are discussed Education and *Bildung* ; Marriage and Family ; Calling and Conduct ; Conceptions of Life and the World. The Second Book deals with the Individual and Society ; Historical-Political Life (the Constitution, Politics, and Ethics, State and Church) ; National Spiritual Life. The Third Book takes up : Problems of Civilization and the Particular Personality ; the Organization of Cultural Life. All these spheres of action owe their ethical significance solely to the fact that they offer the personality a field for the exercise of its free willing. The state, the church, national life, and civilization are not goods in themselves ; the achievements of men have value only as means of realizing personality, as living acts of personality. Life is worth as much as we can make of it ; its worth depends not upon external results ; it consists in the realization of higher freedom, of a higher, diviner humanity. To be sure, such a higher humanity cannot be attained unless we earnestly strive to realize fully and perfectly our ideas and ideals in this world, unless we devote ourselves with an undivided love to all our works. But this love must never become a slavish *passion*, and lose itself in its object ; the work has eternal value only as the living deed of the personality.

“Höchstes Glück der Erdenkinder
Ist nur die Persönlichkeit.”

We are not greatly impressed with Professor Wentscher's attempts to deduce all forms of conduct from so empty a formula as the principle of freedom. Still, the important thing for us, after all, is not how he thinks he gets his ideals, duties, and rights, but what they actually are. The book is a fine expression of the doctrine of self-realization in its best form. As a protest against certain extreme socialistic tendencies of the age and as a plea for a vigorous, healthy, ethical individualism, it is especially valuable.

FRANK THILLY.

CORNELL UNIVERSITY.

Die Erkenntnistheorie der Naturforschung der Gegenwart. Unter Zugrundelegung der Anschauungen von Mach, Stallo, Clifford, Kirchhoff, Hertz, Pearson und Ostwald, dargestellt von H. KLEINPETER. Leipzig, Verlag von Johann Ambrosius Barth, 1905. — pp. xii, 156.

Dr. Kleinpeter bases his theory of knowledge upon the views of Mach, Stallo, Clifford, Kirchhoff, Hertz, Pearson, and Ostwald. The present work is an endeavor to expand the kernel of thought common to all these writers into a complete and coherent epistemology. Thus, while the general stand-

point of the book is not new, it has the merit of presenting in clear and systematic form a view which has elsewhere received only scattered and partial expression.

The author aims to formulate an epistemology which shall meet the needs of the natural science of the present time. His standpoint is that of thorough-going phenomenalism. He holds that the individual knows only his own psychic states, and can never gain knowledge of absolute truth. Hence thought can attain only subjective conviction and never objective certainty. Its ultimate aim is practical: it economizes the energy and increases the efficiency of the individual by demarcating that section of his experience which is not under control of his own will, and whose consequent independence he must recognize. Science also owes its existence to its practical utility. It economizes the strength of the individual by enabling him to profit by the experience of others.

After developing his theory of knowledge, the author makes use of the results in a brief study of the methods and postulates of the different sciences. He is most at home in discussing the methodology of Mathematics and Physics, and here his remarks are interesting and suggestive. But his treatment of the principles of Logic and Philosophy is very unsatisfactory, betraying both misconception and prejudice. The student of philosophy will be amused to find Hegel represented as one possessed by the "*ungeheurliche Idee*" that Logic is an instrument for the creation of new truth; and his amusement will be increased when he reads Dr. Kleinpeter's criticism of the formal laws of identity and contradiction, which is a very weak reminder of Hegel's annihilating criticism of these abstract principles. Throughout the book the author's attitude toward the epistemology of the past is unappreciative and contemptuous. He thinks, apparently, that the philosophy of knowledge has been astray from the time when, following the lead of Plato, it abandoned the 'homo mensura' doctrine of Protagoras, even until recent years, when it was set on the right track again by Mach and others of similar view.

H. W. WRIGHT.

CORNELL UNIVERSITY.

Poetry and the Individual: An Analysis of the Imaginative Life in Relation to the Creative Spirit in Man and Nature. By HARTLEY BURR ALEXANDER. New York, G. P. Putnam's Sons, 1906. — pp. x, 240.

"When the history of poetic genesis and the secret of poetic power are finally determined," thinks Dr. Alexander (p. 5), "they must assuredly give clue to the better understanding of life in our better knowledge of that which makes life fair." And he adds: "To the furtherance of such end the ensuing discussion is addressed."

Now, supposing that the history of poetic genesis can ever be finally recorded, and the secret of poetic power laid bare, and that such chronicle and revelation are the precise objects of this book, what qualifications for

his task must we demand of its author? Either he must be a great introspective poet himself, able, like Wordsworth in the *Prelude*, to sketch the development of his own imagination, and make living generalizations from his own individual experience; or, born something less than that, he must know how to gather typical experiences, not from any, but from the greatest poets, and fortify his conclusions by comparison with the best previous theories of poetry and fine art. What, then, has Dr. Alexander read?

On this head we may learn a little from his Index. This seems to say that he judges poetry as often by the standard of Tennyson as by that of Shakespeare, and that he is about three times as familiar with Blake, Shelley, Keats, Poe, and Browning as he is with Chaucer, Dante, Milton, Homer, and Virgil. Spenser, Aeschylus, Aristophanes, Theocritus, he does not mention. On other grounds it is apparent that by poetry he means lyric poetry *par excellence*; yet he does not refer either to Pindar or to Sappho. He has an obvious leaning to what is short of the best.

Among the historic treatises on poetry he seems to know but one, that attributed to Aristotle; to Mr. Butcher's commentary on the *Poetics* the present book is deeply indebted. Dr. Alexander would have done better had he absorbed even more of that commentary, and in addition read Longinus instead of Mr. Courthope, Sidney instead of Mr. Will H. Low, and Lessing, Wordsworth, Coleridge, Shelley, and others, who have written with genius and erudition on the same subject, and for whom he has no adequate authorities to substitute. Besides Mr. Gummere, to whose talents he does scant honor (p. 178), he should have consulted continental writers like Bücher. The latter's work on *Arbeit und Rhythmus* is, of course, the most valuable recent contribution on the origins of poetry.

Dr. Alexander's whole discussion turns upon the question whether fine art in its origin and appeal is mainly communal or individual; a question which, as Bacon might say, "belongs to the class of unprofitable subtleties," never to be given the same answer twice in succession. The naive and individualistic treatment of this problem presented here is based upon a tacit acceptance of Macaulay's creed that an objective poetry flourishes in a lower rather than a higher state of civilization. In Macaulay's time to be ignorant of the culture of the Homeric age was pardonable. To consider Milton's age over learned, and to forget the greater learning and more vigorous poetry of Shakespeare's age, just preceding, was not. The entire heresy, however latent, is unpardonable now.

Enthusiasm such as Dr. Alexander undoubtedly possesses, occasional nicety of distinction in smaller matters, an untrained gift of phrase that sometimes does grotesque violence to our idiom, and frequently leaves the author's intended meaning dubious, are insufficient capital for the production of a work on so pretentious a subject. If we may believe Chapter Fifteen of the *Poetics*, even Aristotle had read "the published treatises."

LANE COOPER.

The following books also have been received :

Morals in Evolution: A Study in Comparative Ethics. By L. T. HOBHOUSE. 2 vols. New York, Henry Holt & Co., 1906. — pp. xvii, 375 ; vii, 294.

Social and Ethical Interpretations in Mental Development: A Study in Social Psychology. Fourth edition. By JAMES MARK BALDWIN. New York, The Macmillan Co., 1906. — pp. xxvi, 606.

The Psychology of Religious Belief. By JAMES BISSETT PRATT. New York, The Macmillan Co., 1907. — pp. xii, 327.

Aristotle on his Predecessors. Being the First Book of his *Metaphysics* translated by A. E. TAYLOR. Chicago, The Open Court Publishing Co., 1907. — pp. 159. ✓

The Fourth Gospel: Its Purpose and Theology. By ERNEST F. SCOTT. Edinburgh, T. & T. Clark, Imported by Charles Scribner's Sons, 1906. — pp. ix, 379. \$2.00.

Jesus and Nicodemus: A Study in Spiritual Life. By JOHN REID. Edinburgh, T. & T. Clark, Imported by Charles Scribner's Sons, 1906. — pp. ix, 288. \$1.75.

Tent and Testament: A Camping Tour in Palestine with some Notes on Scripture Sites. By HERBERT RIX. New York, Charles Scribner's Sons, 1907. — pp. xiii, 312. \$2.50.

To Christ Through Criticism. By RICHARD W. SEAVER. Edinburgh, T. & T. Clark, Imported by Charles Scribner's Sons, 1906. — pp. 211. \$1.50.

The Aesthetic Experience: Its Meaning in a Functional Psychology. By ELIZABETH KEMPER ADAMS. Chicago, The University of Chicago Press, 1907. — pp. 114.

The Argument of Aristotle's Metaphysics. By EDITH HENRY JOHNSON. New York, Lemcke & Buechner, 1906. — pp. 186.

On the Doctrine of Personal Identity. By C. COMYNS TUCKER. New York and Bombay, Longmans, Green, & Co., 1906. — pp. 31.

Philosophie der unbelebten Materie: Hypothetische Darstellung der Einheit des Stoffes und seines Bewegungsgesetzes. Von ADOLPH STÖHR. Leipzig, J. A. Barth, 1907. —xiv, 418. Mk. 7.00.

Einführung in die Erkenntnistheorie: Darstellung und Kritik der erkenntnis theoretischen Richtungen. Von RUDOLF EISLER. Leipzig, J. A. Barth, xii, 292. Mk. 5.60.

Der Gottesbegriff bei Leibniz. Von ALBERT GÖRLAND. Philosophische Arbeiten, 1. Band, 3. Heft. Giessen, Alfred Töpelmann, 1907. — pp. vi, 103–240. Mk. 3.60.

Immanuel Kant's Kritik der reinen Vernunft. In achter Auflage revidiert von THEODOR VALENTINER. Neunte Auflage. Leipzig, Verlag der Dürr'schen Buchhandlung, 1906. — pp. xi, 769. Mk. 4.

- Herder's Philosophie: Ausgewählte Denkmäler aus der Werdezeit der neuen deutschen Bildung.* Herausgegeben von HORST STEPHAN. Leipzig, Verlag der Dürr'schen Buchhandlung, 1906. — pp. xlv, 309. Mk. 3.60
- Renè Descartes' philosophische Werke.* I. Abteilung (Fortsetzung). Übersetzt und herausgegeben von ARTUR BUCHENAU. Leipzig, Verlag der Dürr'schen Buchhandlung, 1906. — pp. xviii, 149.
- Esquisse d'une histoire générale et comparée des philosophies médiévales.* Par FRANÇOIS PICAUVET. Paris, F. Alcan, 1907. — pp. xxxiv, 335. 7 fr. 50.
- Études de morale positive.* Par GUSTAVE BELOT. Paris, F. Alcan, 1907. — pp. vii, 523. 7 fr. 50.
- Demifous et demiresponsables.* Par J. GRASSET. Paris, F. Alcan, 1907. — pp. 297. 5 fr.
- Le mensonge de l'art.* Par FR. PAULHAN. Paris, F. Alcan, 1907. — pp. 380.
- Psychologie du libre arbitre.* Par SULLY PRUDHOMME. Paris, F. Alcan, 1907. — 176. 2 fr. 50.
- Le duplicisme humain.* Par CAMILLE SABATIER. Paris, F. Alcan, 1907. — pp. xvii, 160. 2 fr. 50.
- Opere italiane di Giordano Bruno.* I. Diologhi metafisici. Con note di GIOVANNI GENTILE. Bari, Guis. Laterza & Figli, 1907. — pp. xxii, 420.
- La previsione dei fatti sociali.* Da LUDOVICO LIMENTANI. Torino, Fratelli Bocca, 1907. — pp. viii, 416.
- Corso sistematico di pedagogia generale.* Da GIOVANNI MARCHESINI. Torino, G. B. Paravia e Comp., 1907. — pp. 319.
- Dello stile.* Da MANFREDI PORENA. Torino, Fratelli Bocca, 1907. — pp. 352.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de M^t.* = *Revue de Métaphysique*; *Rev. N^o-Sc.* = *Revue N^o-Scolastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia e Scienze Affini*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, I. Abt.: *Zeitschrift für Psychologie*. — Other titles are self-explanatory.]

LOGIC AND METAPHYSICS.

On Floating Ideas and the Imaginary. F. H. BRADLEY. *Mind*, No. 60, pp. 445-472.

The world cannot be sharply sundered into a realm of 'facts' and a realm of 'ideas.' Such a rigid division is founded on a false identification of reality with the so-called world of fact. The author shows the fallacious nature of three distinctions founded on this false principle. (I) A 'floating' idea is one which essentially fails to qualify reality. By reality here is meant merely the world of fact, the construction which is made from the basis of the waking body. But reality is more than this. Above the felt totality which underlies every individual experience, exists a multiplicity of worlds more or less independent of each other,—realms of feeling, fact, profession, duty, etc. The world of 'fact' is but one of the worlds which make up the total of reality. The subject in any ideal qualification reality is reality, not in its totality, but in one of these special senses. Every idea essentially qualifies some reality; it floats only with reference to a world in which it does not belong. The qualification need not be an explicit judgment, but a vague immediate coalescence with a more or less indefinite subject-reality, though reflection may always turn this relation into predication. Cases of alleged floating ideas exhibit on investigation the truth of their non-existence. Imaginary ideas are essentially created by exclusion from the actual. But the actual is not all reality. Repelled by the actual, an idea inheres in some other province of reality; at least, in the vague residual totality of the Universe. The ideas existing in the imperative and interrogation qualify the real world of ideas. In hypothetical judgment, the actual fact is at once opposed to, and partly iden-

tified with, the subject of the assertion ; *i. e.*, the sphere which functions as factual is assumed not to be the whole of reality. The idea repelled by negation from a subject inheres somehow in the realm of reality beyond that subject. Every idea is true of reality ; the question is, how far, and in what sense. (II) The distinction between 'real' and 'imaginary' is not that the former has certain external relations lacking to the latter ; this is ultimately meaningless. The imaginary is created by exclusion from the real world of the normal waking self. But this real world rests on a felt content, a quality. Hence a real difference in content exists between the real and imaginary so conceived. But this 'real' is itself an arbitrary and inconsistent construction, depending on a felt quality merely. So vital a distinction as that between real and unreal must find a more secure basis in the internal character of the diverse worlds of reality. (III) Play is not essentially an activity concerned with the world of imagination, and earnest with that of real life. Play may be defined, in contrast with earnest, as any activity so far as it is agreeable, unconstrained by any end, and felt here and now not to matter. Any ordinarily serious activity may, under given circumstances, become play for a given individual. Nor is play without the characteristics of earnest. It is an essential aspect of life, and, as a general end, is in necessary relation to welfare. Though the details of play, unlike earnest, are unconstrained by the general character of its end, illusion is not essential to play. Moral restraint and the 'rules of the game' bring in an element of earnest. The distinction between play and earnest, as between real and imaginary, fact and idea, turns out to be relative, when reality is not identified with the actuality of our bodily world. This special real world in practice we often treat as illusory ; but theoretically, we tend to set it up as real and fail, therefore, to do justice to other aspects of life. The world of reality is the world of values, and values are not judged absolutely but are measured by degrees.

M. W. SPRAGUE.

The Constitution of Thought. HUBERT FOSTON. *Mind*, No. 60, pp. 486-503.

The significance of an objective presentation lies in its mediating function as the anticipatory sign of something else. The mediating importance of objects which are useful to the organism conditions the generalized forms of ideation characteristic of low mental life. Similarly, in higher intellection, conscious abstraction of that aspect of an objective totality of qualities in which it is the sign of another, — abstraction controlled by reference to some ulterior significance as a goal of interest, — is the instrument for efficient dealing with objects. Significance, involving abstraction and potential generalization, is thus the nerve of the organic constitution of thought. But invariable realization of significances is matter not for thought, but for effective association. The function of thought is to assign the further conditions for particular significances when they are sometimes

realized and sometimes not, the assumption being always that causation is a matter of conditional, not customary or unconditioned, succession. Handiwork and language are two means for developing the primitive tendency to regard things as having conditional significance. Both the artificial product and the general name may be centers of various arrested possibilities of significance which stimulate effort to the determination of an available significance. Thought has essentially a practical reference. In the controlled abstraction of some significance, it implies expected realization. In judgment, the copula asserts an equivalence of terms of variant suggestiveness in respect of some ulterior significance. The wide range of remotely possible practical issues involved in general propositions has led formal logic to neglect the practical reference. This reference is disguised in pure mathematics; yet Euclid may be read as the study of a conditioning of voluntary movements to certain effects. Ancient and modern philosophy alike have failed to recognize conditional significance as the guiding principle in our experience.

M. W. SPRAGUE.

Psychophysischer Parallelismus und ein bischen andere Erkenntnistheorie.

E. BLEULER. Z. f. Psych. XLI, 1, pp. 15-27.

It is the task of this article to criticise from an epistemological point of view some of the obscurities, contradictions, and various meanings of psychophysical parallelism. The term has three distinct meanings. (I) The first is Wundt's empirical parallelism. As a purely empirical theory, it is not very useful; it is not genuine parallelism, since the two series are not made co-extensive, and its conception of psychical causality gives rise to confusion. (II) According to the genuine and original parallelism which assumes two separate series, we can have no knowledge of the physical world. It is a mistake to equate the two series epistemologically. One is immediately certain and the other merely an unproved assumption, and we are landed in solipsism. Practical considerations, however, force us to presuppose a physical world. But if there are to be two series for us, they must interact, else we could never know the physical. The confusion lies in the use of the notion of reality, which we apply with two different meanings. Both series are real or not real, but in a different sense. The reality of the psychical world is immediate and absolute, but subjective; the reality of the physical world is hypothetical and relative, but it is objective. (III) Another quite different form of parallelism is that which regards the two series as different aspects of the same thing. Epistemologically this theory is at fault in assuming that the physical is given equally with the psychical. It is thus a monism and not a genuine parallelism, and the question of mutual influence is not pertinent. But the theory is on the whole logically sound, and in principle scientists have widely accepted it. It is not essential to the theory that every physical event should have its psychical accompaniment. One argument in favor of such a panpsychism, — that con-

consciousness could not have appeared at any given stage of development, — is not logically compelling, since we really do not know that consciousness is something in principle quite different from the physical world. Furthermore, it is mere anthropomorphism to assume that, because consciousness is all-important to man, there must also be a consciousness for the physical world.

A. U. POPE.

La logique et la philosophie contemporaine. L. COUTURAT. Rev. de Mét., XIV, 3, pp. 319-341.

Although logic has made great progress during the last fifty years, it is in general neither understood nor appreciated by contemporary philosophy. There are a number of current tendencies hostile to logic. The most widespread of these is 'psychologism,'— *i. e.*, the pretense of psychology to deal adequately with every aspect of the spiritual life. Operating by means of the experimental method, it seeks to reduce logic to the psychology of intelligence. It regards all intellectual operations as merely states of consciousness, and attempts to find a complete explanation of truth and significance in the origin, development, and relations of conscious states. But this standpoint entirely misconceives the relation between logical and psychological laws. The former are concerned with truth and falsity; the latter ignore values and deal only with uniform sequences of phenomena. The incompetence of psychology in matters of logic is shown by its failure to establish a criterion of truth which is not barren and relative; and its entire misconception of the nature of logic by its recent endeavor to substitute for logic a so-called 'logic of feeling,' which is only a description of the affective basis of common fallacies. From this same standpoint, it has been objected that logic does not assist discovery. But this is not the business of logic any more than it is the business of poetics to inspire poetry. Furthermore, in so far as discovery or invention are successful, they unconsciously follow and conform to logical laws. Formal logic has another adversary in what may be termed 'sociologism,' *i. e.*, the pretension of sociology to replace and absorb philosophy. According to this view, the first principles of thought are merely those on which the whole world have agreed. Truth is merely a convention; it is not absolute, objective verity, but rather subjective belief. The fallacy of this theory is an extreme exaggeration of man's sociality. But social conventions such as language exist only as expressions for logically prior ideas. As Aristotle said, man has not reason because he is a social animal, but he is a social animal because he has reason. Another tendency indirectly hostile to logic is 'moralism,' with its doctrine of the primacy of the practical reason, making theoretical reason dependent upon morality. It begins by misunderstanding the nature of logic. By a misuse of the antinomies, it impugns the validity of reason and sets up in its place obligation, which is revealed by voluntary belief, something blind, arbitrary, and dogmatic. Furthermore, this voluntary belief is a fiction, since we believe what we

can, and not what we wish. Finally moralism, by rejecting reason, undermines the moral law, which has no value unless founded on reason. The final tendency antagonistic to logic is pragmatism, the doctrine which defines truth in terms of practical utility. It is the last avatar of empiricism, but with this difference that it necessarily results in subjectivism. Utility is also made the criterion of morality, and we have the uncritical glorification of power and success. Rational logic, which these tendencies oppose, cultivates sanity, precision, the instinct for truth, the critical spirit; and only in obedience to its laws can the mind attain any genuine freedom.

A. U. POPE.

L'échange économique et l'échange affectif. F. PAULHAN. Rev. Ph., XXXI, 10, pp. 359-399.

The personal relation enters into some transactions practically not at all, *e. g.*, the making of a purchase through the medium of an automatic machine. On the other hand, in some cases of exchange, it overshadows all other relations. Between these two extreme cases, the one of economic exchange, the other of sentimental, there is a continuous chain, varying according to circumstances, individuals, and moral conditions. In some cases, there is much sentimental exchange in connection with the economic. Again, there may be, between two parties, transactions in which only one kind of exchange is admitted, and others, between the same parties, where only the other kind takes place. One thing is notable here, — the very definite character of economic, the indefinite character of affective exchange, and the mixed character of exchanges where both of these enter in. On one side, the value is easily and simply appreciated, but the indefinite character of affective relations is noticeable throughout. A striking characteristic of the latter is that the transaction is not at once closed, but, in its very nature, reaches out to the future. It also shows a complexity, a variety not found in cases of economic exchange. In the former, the whole personality seems to be brought into play, while in the latter, this is distinctly not the case. A closer examination would seem to force one to the conclusion that there is no truly gratuitous gift, but that all such cases may be resolved into illustrations of exchange. Even the apparently most disinterested services of a mother to her child are yet illustrations of exchange; for the mother is performing a natural function, the performance of which her nature craves. The affective contract is then real, but vague. It is not, however, altogether indefinite, as is illustrated by the well-defined recognition of certain duties incumbent upon us as social beings. The specific character of the duty may be a question for debate, but that something is due is recognized. The affective exchange, as well as the economic, presupposes some appreciation of the value of the things exchanged. The complications in the former case, however, are infinite, as great as in the measure of our desires. The actual evaluation made in affective exchange differs not always in kind from that made in the econ-

mic, but rather in definiteness. It is harder to fix upon the actual value, since so much must be taken into account. There is often, too, a complication of relations where the affective enters into the economic exchange. Illustrations of this are constantly seen in the economic world; old customers and friends are dealt with in a different way from the common crowd, etc. Our affective association with some economic exchanges is so strong that we tend to extend the feeling to the state of civilization under which they exist; homesickness, *e. g.*, can often be analyzed into a strong desire for the supposed economic superiority of one's native place, and a distaste for the conditions which do not supply them. In more simple and primitive communities, the mixture of affective with economic exchange is much greater than in larger, more advanced states. Unquestionably there is a certain loss in the elimination of the personal element in business transactions; but along with this, there is a gain in the greater ease with which transactions are made, and the possibility of larger economic results from the labor employed. The contrast between the scope and character of the two relations is brought out by a consideration of the passage from one to the other and of the conditions which bring this forth. In the lives of individuals, of communities, of states, organization and stability of conditions seems to go hand-in-hand with a preponderance of economic over affective relations; while periods of unrest, of upheaval, of revolution are characterized by a large increase of affective elements. Progress seems dependent upon alternations of these periods, for a preponderance of the one would lead to too great mechanism, of the other, to too great sentimentality. The passage from sentimental activity to economic activity seems to be one from altruism to egoism. But it is possible for both terms to lose significance in an exchange where what is beneficial to one is also beneficial to the other of the contracting parties; and this may be as true in economic as in affective exchange. So these two seemingly opposite relations succeed each other normally and complete each other; and both are essential elements of progress.

MATTIE ALEXANDER MARTIN.

L' 'a priori' dans la science. W.-M. KOZLOWSKI. *Rev. Ph.*, XXXI, 10, pp. 400-411.

Science is born at the moment when man commences to make a purely theoretical employment of his knowledge. The world that science substitutes for immediate reality is composed of laws, of forces or energies, of atoms or masses. It is held by one school, of which Mach is the head, that the concepts and the theories of science are arbitrary and accidental. We agree with Mach in holding that the laws of nature are not found in things; but we hold that, far from being arbitrary and accidental, they are subjected, on the contrary, to a double necessity: that of our understanding, which determines the form of these principles, and that of the domain in which they are applied, which determines the choice of them. The idea

that empirical knowledge cannot have a place without certain *a priori* principles serving as its base is very old. But the explication of the idea has, in many cases, taken the form of the doctrine of innate ideas, a doctrine naturally meeting with antagonism from men of science. We can distinguish two kinds of *a priori* in science: (1) the *historical a priori*, introduced consciously and deliberately, forming the principles and scientific postulates; (2) the *psychological a priori*, produced unconsciously and involuntarily from our knowledge, introduced into the science under the form of these fundamental concepts. The problem of discovering the *a priori* in science is thus divided into two distinct fields: (1) the search for directing principles in scientific investigation; (2) the psychogenesis of scientific concepts. The process of science consists in erecting, *à propos* of the observed reality, an ideal and purely rational edifice, towards which experience approaches more or less, and the end of which is to render experience intelligible. The progress of science is a progress from naïve intuitions to concepts. Its end is to multiply the equalities between the sensible and the rational aspects of the world.

MATTIE ALEXANDER MARTIN.

PSYCHOLOGY.

The Nature of Conation and Mental Activity. G. F. STOUT. Br. J. Ps.
II, 1, pp. 1-15.

Mental activity consists in interaction between subject as such and object as such, irrespective of the material efficiency of the conation. The specific character of conations in determining events may be described as the felt tendency toward change which arises when change is not merely thought but wanted. While Mr. Bradley is correct in ascribing complexity to conation, he fails to note as the distinctive feature of this complex the presence of a simple, unique, unanalyzable element. This unique component is an immediate experience, felt as pleasure and pain are felt. While never occurring in isolation at the introspective level, it may be conceived as the blind craving which persists as an essential relation to something required for fulfilment, when we abstract completely from even the vaguest cognitions of an end to be attained. In place of this immediate experience, Mr. Bradley would substitute as the unique characteristic of the conative complex the identification of an idea with the self. This substitution is of doubtful value—not the idea of change, but the felt tendency toward it, constitutes the important factor in conation. Further, 'identification with the self,' either in the broader or the narrower sense, is neither a distinctive nor an essential factor in conation. The self as an organized system, presupposes conation or interest, and hence cannot itself be considered as the ultimate precondition of conation. The view which would identify the peculiar element of conation with motor sensation is likewise untenable. No correspondence between the intensities of the two exists. The

special connection of motor sensations with the conative experience is an irrelevant fact, due merely to their being the sense-experiences most immediately and uniformly resulting from our activity. The prevailing tendency among experimental psychologists is toward the rejection of conation as a distinct process coördinate with sensation and affection. Conation and affection may, indeed, be best described, not as two processes, but as distinguishable aspects of the same process. Yet it cannot be conceded that pain and pleasure, and desire or felt tendency, are not distinct and distinguishable modes of being conscious. The reasons why felt tendency has so largely eluded systematic introspection are various. The element of felt tendency cannot be detached from the conative complex; neither can it be superinduced on a synthesis of the elements yielded by the ordinary analysis of the experimental method. Hence it is inaccessible to the psychology which relies on the building up of mind out of certain recognized constituents, notably sensations. Further, the current laboratory assumption that mind is merely a sensation-complex is not only untenable from the point of view of epistemology and common sense, but, as an exaggerated form of subjective idealism which ignores all reference, either temporal or objective, it is doomed to failure in the investigation of a psychical experience which involves intrinsically a reference to an 'is to be,' as does conation.

ELSIE MURRAY.

On the Analysis of the Memory Consciousness: A Study in Mental Imagery and Memory of Meaningless Visual Forms. F. KUHLMANN. *Psych. Rev.*, XIII, 5, pp. 316-348.

An investigation of the memory consciousness by the method of direct introspection rather than by inference from psychophysical data is the general purpose of this study. The special object is to determine the nature of the imagery in the recall of a given material and the memory errors and their causes. The subject was required, at varying intervals, to recall and record by verbal description and drawing members from a group of meaningless visual forms exposed once. In recall the descriptions and associations consciously sought by the subject in the learning of the material were sometimes utilized as clues to the recovery or development of a figure, but in cases of a high degree of spontaneity of visual imagery were secondary or lacking. Spontaneity varied with lapse of time, repetition of recall, and nature of the figure, reaching its highest limit in the case of the familiar geometric forms. The errors were traceable to three sources, ambiguous verbal description, associations, and a tendency to approximate a standard shape, position, and symmetry. In comparison with inferences from psychophysical data, the results in general indicate that the inherent spontaneity of the imagery directly concerned in recall is of equal if not greater importance than are associations, and the weight of evidence is against the theory that all recall is mediated by some associative connection. The probable relation of spontaneity to repetition and its evident connection with

the internal organization of the material indicate that the inference from objective data, that the greater ease of recall in complex figures depends on the number and closeness of the associative connections, is only a half-truth. The complex material is at the same time that which has been the most frequently in consciousness. Spontaneity of imagery may be taken as an expression of mental economy. The gradual elimination of associations as aids to recall, or memory sanctions, which takes place with repetition of recall, is a further instance of such economy, culminating in the immediate drawing of the figure without recourse even to the visual image. A similiar tendency is reflected in the direction of error, which tends to substitute an easier memory image, *i. e.*, one of greater spontaneity, for the correct one. The naïve conception of the memory consciousness as a weakened copy of the original perception, with a recognition factor added, is controverted by these results. The process of recall is not a weakened repetition of the process of learning, but one widely diverse. Moreover, the recognitive element is not a mere addendum, but a vital factor in the rejection and acceptance of details throughout recall, and is further accompanied by an emotional reaction corresponding to expected ease or difficulty of recall. Recall is very largely not recall or reproduction at all, but the construction of a certain result which is accepted in place of the original.

ELSIE MURRAY.

Contre l'intellectualisme en psychologie. G. L. DUPRAT. Rev. Ph., XXXI, 7, pp. 53-63.

Intellectualism in psychology has its origin in the belief that man shares to some extent in the essentially divine power of cognition. The present reaction against metaphysics and theology should lead to a criticism of this position. Even pragmatism, as seen in W. James, is still faithful throughout to the old Kantian view. Our view is that a scientific psychology should seek for the origin of our intellectual activity in the exigencies of vital activity, should look behind human thought to the time when it did not exist. If we are not then allowed a world of time, space, causality, etc., we will conceive of subjects simply feeling and moving, entirely devoid of any knowledge of phenomena. We claim for such inferior beings only the activities of attraction and repulsion, along with certain tendencies toward expansion and contraction in the presence of light and dark, such as are seen even in plant life. These feelings and these tendencies are in some way connected. Beginning with no more than this, we can then trace the psychological development of man. The intellectualist may object that desire implies an end, but in fact it is nothing but habit induced by preceding activity. In the same way, sensation is merely a passing mode of mental activity. Adaptation is the result of opposing desires gradually conciliated, and tends toward the total activity of a living being. Through imagination and the principle of causality, we pass from sensation to the idea of an object. Space, quantity, position, succession,

etc., follow with no need of reference to spirit, and in place of metaphysics we have a scientific psychology.

MARGARET K. STRONG.

L'attention spontanée dans la vie ordinaire et ses applications pratiques.

ROERICH. Rev. Ph., XXXI, 8, pp. 136-160.

Spontaneous attention has two aspects, primitive and apperceptive. Primitive attention is the effort by which we seek to know an object which has produced on our senses a vivid impression. It interprets the exciting object in terms of sense impressions, automatically and without recourse to discursive reasoning. For primitive attention we have three laws: (1) The more attention the shorter the reaction time. (2) Attention cannot remain fixed on any object more than several seconds at a time. (3) A definite duration of time is necessary for the appreciation of a change in stimuli. For the practical application of primitive attention there are five rules: (1) To arouse and hold it, impressions must progressively increase in intensity or vivacity. (2) A time of definite duration must elapse between repeated impressions. (3) The object of attention must be clearly defined. (4) Impressions different in nature can be associated when referring to the same object. (5) Contrast increases the strength of impressions. Attention by apperception is a form of spontaneous attention aroused by a new impression or idea among previously acquired impressions or ideas. It has one law and four practical rules. In every act of cognition which is not directed by the will, the exactitude and rapidity of cognition is in proportion to the extent and variety of previously acquired ideas associated with it, and to the degree of system in their coördination. The rules are as follows: (1) To excite apperceptive attention, the exciting idea must appear novel, though it need not be so. (2) The exciting idea must be similar to, but not identical with, the previously acquired ideas. (3) The new idea must be bound to the old ideas. (4) There must be a pause between two culminating points of attention.

C. WEST.

Comment les passions finissent. TH. RIBOT. Rev. Ph., XXXI, 6, pp. 619-644.

Passion seems always to be slowly formed, generally before its appearance in consciousness. But its formation follows the law of summation, moving more rapidly as it proceeds. The appearance of the dominating idea marks the moment when the passion is constituted as such; a sudden revelation of an unconscious work. A passion which has not passed through a period of incubation has a precarious existence. Passions end in various ways, which may be put in five classes: exhaustion or habit, transformation, substitution, insanity, death. The probability of extinction of a passion is in direct proportion to the quantity of its emotional, as opposed to its intellectual, elements. Static inhibitory passions are more stable than dynamic passions: the more active a being, the more causes

of destruction it meets. But passion cannot live by mere inertia or habit. There must be in it a desire for life and dominance. Physical feebleness, sickness, age, and chagrin drain the energy needed by passion. For passion is the result of the total energy, a condensation of personality. In true passion, whose life is ever renewed, habit plays no part. But the tendency of the affect of routine on passion is to reduce its activity. The transformation of one passion into a kindred passion is not its extinction. Such a phenomenon may be caused by a surplus of energy needing expression and by the delayed appearance of the ruling idea. The transformation may be the effect of exterior influences or of latent tendencies, but the initial passion is the same under another masque. Where it changes to its opposite, the dominant idea remains; there is but an inversion of value. The substitution or total replacement of a passion is very rare. The appearance of substitution is given by the successive dominance of coëxisting passionate tendencies. In the case of passions which end in insanity, it is pertinent to ask if passion is pathological. In some ways passion is like insanity, but the fixed idea necessary to passion is not found in insanity. Passion is conscious of itself as such; insanity is not. Still there is no specific characteristic by which they may always be distinguished. Passion is certainly a rupture in normal life, characterized by polarization of consciousness. It approximates insanity when it does not end in it. By its intrinsic nature passion marches consciously towards death. A man is his passion; therefore the instincts of self-preservation and of passion are identified when a man meets death for his passion.

C. WEST.

ETHICS AND ÆSTHETICS.

La sociologie abstraite et ses divisions. ADRIEN NAVILLE. Rev. Ph., XXXI, 5, pp. 457-471.

The aim of this article is to show that sociology is a science. Sociology is defined as the science which seeks the natural laws of the relations existing between men. The divisions of the science must be based on the diversity of these kinds of interrelations. Economics is not to be considered a social science, or, at least, not a part of sociology. The human interrelations with which sociology is concerned are the voluntary relations. All of these relations may be referred to six chief groups: Co-operation, exchange, donation (benevolence), spoliation, authority (command and obedience), and systems of signs and language. Each of the parts of sociology will be the science of the natural laws of one of these groups of relations. To illustrate the division of the science several questions are formulated and referred to their proper groups. Each of these divisions of sociology seeks to analyze the different kinds of relations, and their causes, duration, modifications, and suppression. General sociology makes a synthesis of the results obtained by analysis. General laws which shall afford answers to sociological questions are the object of abstract sociology.

The founding of such a science is not impossible, although it is a remote ideal.

FRANK B. CRANDALL.

La critique d'art. PAUL GAULTIER. Rev. de Ph., VI, 10, pp. 344-358.

A work of art, itself the expression of æsthetic emotion, cannot be made subject to a purely intellectual criticism. Reason of itself cannot estimate beauty, cannot lay down for it any fixed laws. The time is long past when the fine arts were confined to certain orthodox subjects presented according to determined rules. For us the one virtue of a work of art is the æsthetic emotion to which it gives rise. We cannot accept as a criterion its moral value, its social virtues, or the skill of its execution. None of these is after all its *raison d'être*. Nor does art include the study of geography, history, ethics, etc. These teach us to understand, but art is essentially emotional. In any concrete form, it is true, the work of art has certain characteristics apart from its beauty. Reason of itself, without complete artistic appreciation, still recognizes harmony, unity, and likeness to nature. Intellect demands these fundamental qualities; it may speak also of the subject, the style, and the coloring. Feeling, on the other hand, though different for different individuals, is the natural possession of us all. Dutch art we feel is cold, while Italian is all emotion. Some works impress us vividly, others haunt our memory, others are quickly forgotten; we judge of them accordingly. Next to feeling comes execution; the work must recall what we have already seen or heard. A work full of thought, too, has a corresponding value, as in the majesty of Christian art. But in the end, it is the personality of the critic which determines his criticism. He must give himself up to the power of the artist, and judge of the result. The true critic, though guided by his intellectual discrimination, is determined at last by his sensitiveness to all the influences of feeling.

MARGARET K. STRONG.

Qu'est ce que l'art? P. GAULTIER. Rev. Ph., XXXI, 9, pp. 225-259.

What is the distinguishing mark of the work of art? Does it conform approximately to an ideal model or does it imitate nature? Is it nothing but a combination of pleasing sensations? To answer these questions satisfactorily, we must approach art not from a standpoint of superficial objectivity or of individualistic subjectivity, but from that of feeling. Unlike the sciences of mechanism, thought, or conduct, the fine arts do not satisfy any needs of our organism. Though utility and art may unite in one object, they are distinctly independent. So also of truth and art: the realm of art is imagination, not understanding. Nor is the object of the fine arts the morally good. They are the manifestation of a spontaneous activity; they attract by their very nature, and have no end but themselves. They create beauty. Some consider beauty an objective fact, but an absolute beauty has no existence, for it is inconceivable. Our ideal is one we construct ourselves, and hence is rational. Only as beauty is of

the individual have we originality in art, and genius in the artist. Art improves even upon nature and glorifies the naturally ugly. The pleasure it gives is not merely that of sense. Face to face with nature, the artist expresses his æsthetic emotion in the work of art, and according to the depth of his feeling gives to us beauty objectified. Nature may be agreeable, but never beautiful. Beauty belongs to the work of art alone. Even the pleasure we derive from nature varies with our artistic training, so that since the time of Millet we love scenes in the country. The work of art consists not in the imitation of nature, but in its correction. Not the technique, nor the subject represented, but the personality of the artist gives value to his work. Art demands liberty and originality. We aspire to the ideal, and this aspiration expressed is art, nature transformed according to the human will. But while art rises above nature, still nature furnishes its materials, its colors, sounds, etc. It is by nature that the feelings of the artist are aroused. He has insight into truths which are imperceptible to the ordinary person, and herein consists his originality. Art is nature interpreted in all its meaning, and, when thus expressed, is feeling realized in form.

MARGARET K. STRONG.

NOTES.

David Irons, Professor of Philosophy in Bryn Mawr College, died on Wednesday, January 23, after an illness of only a few hours. Although during the past three or four years he had been bravely fighting with ill health, he never abandoned the hope of the ultimate recovery of his wonted vigor and strength. His sudden death was wholly unexpected, and it has come as a great shock to his many friends.

David Irons was born in Dundee, Scotland. He was a distinguished graduate of the University of St. Andrews, where he took the degree of Master of Arts, with honors in philosophy, in 1891. He won the Ramsay Scholarship, which he held from 1891 to 1892, and later the Ferguson Scholarship, which he held from 1892 to 1894. He was appointed Fellow in Philosophy at Cornell University in 1892. In 1893-94 he studied at the Universities of Berlin and Jena, returning to Cornell to take his degree of Doctor of Philosophy there in 1894. He was Lecturer in Philosophy at Cornell from 1894 to 1896, and acting Professor of Philosophy at the University of Vermont in 1896-97. From 1897 to 1900 he was Instructor in Philosophy at Cornell, and in 1900 was called to Bryn Mawr as Associate Professor. In 1905 he was appointed Professor of Philosophy at Bryn Mawr and was made head of the department. While at Cornell he assisted in editing the PHILOSOPHICAL REVIEW, to which he contributed a number of reviews and articles, as well as to other philosophical periodicals. Dr. Irons' chief interest was in Ethics. In 1903 he published *The Psychology of Ethics*. His theory of emotions, contained in this work, is a permanent contribution to recent discussion on this subject and has elicited appreciative comment from many quarters both in this country and abroad. He was engaged upon a larger work in Ethics at the time of his death and had also planned to write a volume on the Philosophy of Rationalism for a forthcoming philosophical series. He was also one of the charter members of The American Philosophical Association, and his efforts and zeal were largely instrumental in the founding of that Association. To the many friends who had the privilege of knowing David Irons intimately, there was revealed a wealth of mind and heart which will remain always a cherished memory. With his name will be associated the ideas of distinguished scholarship and those graces of character through which he illustrated conspicuously in his life the cardinal doctrine of his ethical theory, — the native dignity and nobility of personality and the possibility of a continuous self-development.

JOHN GRIER HIBBEN.

Charles E. Garman, Professor of Philosophy at Amherst College, died on February 9, aged fifty-seven years. He was recently presented by his

former students with a volume entitled *Studies in Philosophy and Psychology*, in commemoration of twenty-five years of service as a teacher of philosophy. A review of this work will appear in the next number of the REVIEW.

Dr. P. J. Möbius, the well-known Leipzig neurologist and the author of works on Rousseau, Goethe, Schopenhauer, and Nietzsche, and on various psychological and sociological subjects, died recently in Leipzig, aged fifty-three years.

We regret to announce also the death of Professor Walter Smith, M.A. (Edinburgh), Ph.D. (Tübingen), late of Lake Forest College. Professor Smith was the author of *The Methods of Knowledge* (Macmillan, 1899) and was a frequent contributor to various philosophical periodicals, including this REVIEW.

Professor William James, of Harvard University, has retired from active service. He taught comparative physiology and anatomy at Harvard from 1872 to 1878, and since the latter date has been Professor of Philosophy and Psychology. In the future he will devote himself to writing, and is at present engaged in preparing a work on metaphysics.

Dr. Dickinson S. Miller has been appointed Professor of Philosophy at Columbia University.

Dr. George H. Sabine has been appointed Instructor in Philosophy at Leland Stanford Jr. University.

Messrs. Dodd, Mead, & Co., of New York, announce a history of early American philosophy by Dr. I. Woodbridge Riley, of Johns Hopkins University.

We have received the first number of a new Italian philosophical periodical entitled *La cultura filosofica*.

We have received also the first number of the *Revue des sciences philosophiques et théologiques*, the prospectus of which was mentioned in our last number. The contents appear below.

We give below a list of articles, etc., in the current philosophical periodicals:

MIND, No. 61: *Henry Rutgers Marshall*, The Time Quality; *H. A. Prichard*, A Criticism of the Psychologists' Treatment of Knowledge; *Gerald Cator*, The Structure of Reality; *R. F. Alfred Hoernlé*, Image, Idea and Meaning; *T. M. Forsyth*, The Conception of the Unknown in English Philosophy; Critical Notices; New Books; Philosophical Periodicals; Notes.

THE PSYCHOLOGICAL REVIEW, XIV, 1: *W. M. Urban*, Definition and Analysis of the Consciousness of Value, I; *A. H. Lloyd*, Some Important Situations and their Attitudes; *C. L. Herrick*, Genetic Modes and the Meaning of the Psychic; Corrigenda.

THE PSYCHOLOGICAL BULLETIN, IV, 1: *Edward Franklin Buchner*, Psychological Progress in 1906; *Raymond Dodge*, An Improved Exposure Apparatus; Psychological Literature; Books Received; Notes and News.

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS, III, 26: *R. S. Woodworth*, Imageless Thought; *Thomas P. Bailey*, Snap Shot of a Dream Drama; *Wm. James*, Mr. Pitkin's Refutation of 'Radical Empiricism'; Reviews and Abstracts of Literature; Journals and New Books; Notes and News; Index to Volume III.

IV, 1: *F. Kuhlmann*, Problems in the Analysis of the Memory Consciousness; *R. W. Sellars*, The Nature of Experience; *F. C. S. Schiller*, The Madness of the Absolute; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IV, 2: *Arthur O. Lovejoy*, The Desires of the Self-Conscious; *Edward L. Thorndyke*, The Mental Antecedents of Voluntary Movements; *F. C. S. Schiller*, The Pragmatic Babe in the Wood; *Walter B. Pitkin*, In Reply to Professor James; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

THE HIBBERT JOURNAL, V, 2: *Campbell Fraser*, Our Final Venture; *A. O. Lovejoy*, The Entangling Alliance of Religion and History; *Paul Sabatier*, La crise religieuse en France et en Italie; *G. G. Coulton*, The Failure of the Friars; *R. S. Conway*, The Messianic Idea in Vergil; *R. J. Campbell*, The Christian Doctrine of Atonement as Influenced by Semitic Religious Ideas; *Hastings Rashdall*, A Grave Peril to the Liberty of Churchmen; *Carl S. Patton*, The New Theism; *F. F. Grensted*, The "Eternal Now" in Anglican Theology; *Hugh MacColl*, Chance or Purpose? *Basil de Sélincourt*, The Parallelism of Religion and Art; *W. R. Boyce Gibson*, A Peace Policy for Idealists; Discussions; Reviews; Bibliography of Recent Literature.

INTERNATIONAL JOURNAL OF ETHICS, XVII, 2: *Arthur Ernest Davies*, The Good and the Bad; *Helen Wodehouse*, The Idealist and the Intuitionist; *Basil de Sélincourt*, The Ethics of Passion; *James W. Garner*, Political Science and Ethics; *James Oliphant*, Parental Rights and Public Education; *B. Kirkman Gray*, The Ethical Problem in an Industrial Community; *Edward Moffat Weyer*, A New Search for the Soul; Book Reviews.

THE MONIST, XVII, 1: *Soyen Shaku*, The Buddhist Conception of Death; *Hugo de Vries*, Evolution and Mutation; *Lawrence H. Mills*, Zarathushtrian Analogies; *Editor*, Mythical Elements in the Samson Story; *Waldemar Kloss*, Erasmus's Place in the History of Philosophy; Criticisms and Discussions; Book Reviews and Notes.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, XII, 4: *Hermann Graf Keyserling*, Ein Beitrag zur Kritik des Glaubens; *Max Frischeisen-Köhler*, Über die Grenzen der Naturwissenschaftlichen Begriffsbildung, II; *Marie Joachimi-Dege*, Das Wesen des menschlichen Seelen und Geisteslebens; *Richard Skala*, Zum 'kritischen Idealismus'; *R. Seligmann*, Der ökonomische Güterwert als Nille zur Arbeit, I; *Branislav Petronievics*, Über die Wahrnehmung der Tiefendimension, I; Jahresbericht.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOZIOLOGIE, XXX, 4: *Georg Wernick*, Der Wirklichkeitsgedanke, III; *E. v. Aster*, Über die erkenntnistheoretischen Grundlagen der biologischen Naturwissenschaften; *P. Barth*, Die Geschichte der Erziehung in soziologischer Beleuchtung, V; *Karl Marbe*, Beiträge zur Logik und ihren Grenzwissenschaften; Berichtigung; Besprechungen über Schriften; Entgegnung; Notiz; Philosophische und soziologische Zeitschriften; Bibliographie.

ZEITSCHRIFT FÜR PSYCHOLOGIE, XLIII, 5 u. 6: *G. Heymans* und *E. Wiersma*, Beiträge zur speziellen Psychologie auf Grund einer Massenuntersuchung; *Hans Abels*, Über Nachempfindungen im Gebiet des kinästhetischen und statischen Sinnes (Schluss); *M. Urstein*, Ein Beitrag zur Psychologie der Aussage; *N. Ach*, Zweiter Kongress für experimentelle Psychologie; Literaturbericht.

XLIV, 1 u. 2: *C. Stumpf*, Über Gefühlsempfindungen; *F. Krueger* und *C. Spearman*, Die Korrelation zwischen verschiedenen geistigen Leistungsfähigkeiten; Literaturbericht.

REVUE PHILOSOPHIQUE, XXXI, 12: *Adrien Naville*, La morale conditionnelle; *L. Dugas*, La fonction psychologique du rire; *G.-H. Luquet*, Logique rationnelle et psychologisme; *V. Egger*, Une illusion visuelle; *G. Richard*, Les obscurités de la notion sociologique de l'histoire; Analyses et comptes rendus; Revue des périodiques étrangers; Livres nouveaux; Informations; Table des matières.

XXXII, 1: *J.-J. Van Biervliet*, La psychologie quantitative; *A. Bertrand*, Esthétique et psychologie; *A. Bayet*, Sur la distinction du normal et du pathologique en sociologie; *J. Segond*, Quelques publications récentes sur la morale; Analyses et comptes rendus; Revue des périodiques étrangers; Livres nouveaux.

REVUE DE PHILOSOPHIE, VI, 12: *Domet de Vorges*, Dieu infini; *A.-D. Sertillanges*, La connaissance de Dieu; *N. Vaschide* et *R. Meunier*, La mémoire des rêves et la mémoire dans les rêves, II; *Alex. Veronnet*, La matière, les lois, les électrons; *Gabriel Cazals*, Une conception nouvelle de la personnalité; *G. de Pascal*, Revue critique de sociologie; Analyses et comptes rendus; Périodiques; L'enseignement philosophique.

VII, 1: *J. Grasset*, La fonction du langage et la localisation des centres psychiques dans le cerveau; *Charles Boucaud*, L'être et l'amour; *Alex. Veronnet*, La matière, les ions, les électrons, II; *J. Lebreton*, L'infinité divine depuis Philon jusqu'à Plotin; Analyses et comptes rendus; Périodiques; L'enseignement philosophique.

REVUE NÉO-SCOLASTIQUE, XIII, 4: *Domet de Vorges*, Les manuscrits inédits de Maine de Biran; *P. Hadelin*, Une théorie intuitioniste de la connaissance au XIIIe siècle; *Jean Halleux*, A propos d'un livre sur l'existence de Dieu; *F. Van Cauwelaert*, L'empirio-criticisme; *M. De Wulf*, Un scolastique inconnu de la fin du XIIIe siècle; Chronique philosophique;

E. Janssens, Un nouveau traité de métaphysique scolastique ; Bulletin de l'Institut de Philosophie ; Comptes rendus ; Ouvrages envoyés à la rédaction ; Table des matières pour l'année 1906.

JOURNAL DE PSYCHOLOGIE NORMALE ET PATHOLOGIQUE, IV, 1 : *Dromard*, Les troubles de la mimique émotive chez les aliénés ; *Polimanti*, Contribution à la psychologie des sensations gustatives subséquentes ; *Bénézech*, Un appel de Dieu ; Société de psychologie ; Bibliographie.

REVUE DES SCIENCES PHILOSOPHIQUES ET THÉOLOGIQUES, I, 1 : *P. M. de Munnynck*, Les bases psychologiques du mécanisme ; *B. Allo*, 'Germe' et 'ferment' ; *L. Gry*, L' idée de Dieu dans les Apocryphes de l'Ancien Testament ; *A. Humbert*, Le problème des sources théologiques au XVI^e siècle ; *M. Gillet*, La définition de l'habitude d'après Aristote ; *M. Jacquin*, Question de mots : Histoire des dogmas, histoire des doctrines, théologie positive ; Bulletins ; Recension des Revues.

RIVISTA DI FILOSOFIA E SCIENZE AFFINI, XV, 4-6 : *R. Ardigò*, Il sogno della veglia ; *G. Dandolo*, La metafisica della sensazione ; *G. Tarozzi*, Il professore di scuola media e il suo futuro compito civile e morale ; *Antonio Marchesini*, Appunti sulla pedagogia di A. Schopenhauer ; *A. Marucci*, Per un nuovo ordinamento degli studi filosofici in Italia ; *R. Mondolfo*, Intorno al convegno filosofico di Milano ; *Giovanni Marchesini*, I concorsi per esame : *Giovanni Marchesini*, L' Istituto di Pedagogia sperimentale di Milano ; Analisi e cenni di filosofia e pedagogia ; Notizie ; Indice degli articoli originali dell' annata 1906 ; Sommari di riviste.

RIVISTA FILOSOFICA, IX, 4 : *A. Faggi*, Gli albori della psicologia in Grecia ; *G. Zuccante*, S. Bernardo e gli ultimi canti del paradiso ; *G. Vidari*, Il moralismo di Kant ; *G. Della Valla*, La fase attuale della psicologia sperimentale ed il Congresso di Würzburg ; Rassegna bibliografica ; Notizie e pubblicazioni ; Libri ricevuti.

THE PHILOSOPHICAL REVIEW.

CONTEMPORARY PHILOSOPHY IN GERMANY (1906).

PHILOSOPHICAL activity in Germany during the year 1906 shows a number of different tendencies, although in a certain sense it is marked by unitary motives. These tendencies and motives can be understood only by reviewing antecedent historical conditions. The philosophical situation a short time ago might be characterized as bearing the hall-mark of Kant. Even to-day this condition continues, but with important qualifications. The return to Kant, which was inaugurated a few decades ago by F. A. Lange, author of the *Geschichte des Materialismus*, has worked itself out with great energy, one might almost say with vehemence. The achievements of eminent investigators like Vaihinger, Riehl, Volkelt, Windelband, Cohen, Paulsen, to whom the collective term 'Neo-Kantians' is applicable, have hastened the revival of Kant and have helped to deepen the influence of the *Kritik der reinen Vernunft* on modern intellectual Germany. Consistently with the many-sided and polyphonic character of the Kantian Criticism, its revival has proceeded from manifold points of departure. While certain investigators find in it an epistemological defence against metaphysics and, therefore, limit inquiry to experience, others erect on the foundation of transcendentalism a new metaphysics. Nevertheless both parties agree in their common claim to the title of Kantians. For the sake of making this remarkable state of things clear, mention may be made of two widely opposed extremes: the immanent school, thinkers like Schuppe, Rehmke, Schubert-Soldern, and Leclair, who proclaim allegiance to Kant, and the metaphysical school, including such men as Wundt, Eduard von Hartmann,

and Volkelt. There are, however, common characteristics attributable to all Kantians, and this is true less on the positive than on the negative side of their teaching, less in what they affirm than in what they *deny*, viz., a dogmatic, intolerant positivism, empiricism, relativism, and psychologism. Neo-Kantianism also takes a sceptical attitude towards evolutionism, in so far as it does not believe in the possibility of explaining all epistemological values by the stream of development. The limits of every empirical and evolutionary mode of thought are fixed by the *a priori* nature of pure concepts. In the last few years, partly within and partly outside of Neo-Kantianism, an important movement is noticeable, — a movement heralded by some as a renaissance and derided by others as a reaction, — whose peculiarity consists in the fact that it aims to reproduce on a new basis the philosophical and culture significance of the idealistic movement from Kant to Hegel.

The late Eduard von Hartmann somewhat ironically called this movement the "Review-course" (*Repetitionskursus*). The prophecy, which he expressed to me personally a few years ago, that after Kant we should have Fichte, and after Fichte we should have Schelling and Hegel, has been fulfilled. Some time ago Neo-Fichteism came upon the scene and attracted large numbers of followers. It met abstract and theoretical needs, but more especially it met practical needs. Windelband in his *Prae-ludien* had pointed out that, apart from the metaphysical and dialectical elements, Fichte was Kant's most correct interpreter. For while Kant's transcendental epistemology, by its lack of rigid deduction, had no unitary foundation and consequently was without secure anchorage, Fichte was the first to postulate a single ultimate end, in terms of which all categories and epistemological values are determinable. This end for Fichte is practical, while the Neo-Fichteans, especially Rickert, regard the end as theoretical, — a logical epistemological end, a logical 'ought' (*Sollen*). The movement, however, does not stop with Neo-Fichteism; the latest, most epochal event in philosophy is rather the transition to Hegel, the constantly growing Neo-Hegelianism. This development did not take place along a single narrow path, in such wise that one might say that the

whole of philosophical activity was at the start under the influence of Kant and then passed successively under the influence of Fichte and Hegel. On the contrary, all of these tendencies are coëxistent; furthermore, mediating transitional forms of thought and nuances are not lacking. There also appears to be a movement directed not so much to the solution, as to the determination of the status, of the problems in terms of Post-Kantian idealism. A noteworthy fact here is that we find in the case of certain philosophers who avowedly made Kant their starting-point and who in some instances began as orthodox Kantians, clear approximations to Hegel, although these approximations may not have been consciously made. It is characteristic of the most recent German philosophy that the several stadia through which Post-Kantian speculation passed, are here reproduced on a new basis and in agreement with the spirit of the age. The modern movement began in Neo-Kantianism with the revival of the chief ideas of the Critical Philosophy. From Kant the path led to Fichte, from Fichte to Hegel. If one were desirous of giving more exact chronological determinations to the movement, one would fix the year 1906 as the year of the Renaissance of Hegelianism. One must also note here that, while the influence of those Post-Kantian thinkers who were prominent a few decades ago, especially Herbart and Schopenhauer, has begun to wane in the sphere of pure philosophy, attention has lately been turned to other men of the same period, to Fries, Beneke, and Feuerbach. This has been done with a view to placing their doctrines in the service of modern modes of thought. It is further noteworthy that not merely in philosophy, but also in the widest circles of culture, the age of romanticism is growing in esteem and interest. The shibboleth of neo-romanticism belongs to to-day's program. The consequence is a renewed and keen examination of the thinkers of the romantic period, Schlegel, Novalis, and Schelling, as well as Fichte and Hegel. And here one is not concerned with antiquarian, but with present, factual interests. By intimate contact with the ideas and ideals of that period, it is intended to rejuvenate and purify our own culture.

And so, at the present moment, we are living in the final stages of an apparently retrospective movement. But one would erroneously estimate the movement, if one were to see in it merely a reaction, a return to an outlived point of view. The movement is, perhaps, not entirely free from this reproach, especially if one regards its extremes. On the other hand, it has enriched investigation with new motives, and, by its inner connexion with the past, has awakened the consciousness of the continuity of civilization. In proceeding to review in detail the philosophical work of 1906, we shall have reference mainly to the above-mentioned relationships to Kantian and Post-Kantian philosophy as points of orientation, but without over-emphasizing this schema and without neglecting the fruitful ideas that are discoverable outside of it. A further principle of classification is found in the fact noted above, that modern speculation is divided between epistemological and metaphysical inquiries, wherein epistemology occupies, on the whole, the central position in the stricter, academic philosophy, while metaphysics forms the nerve of the popular treatises focusing mainly in neo-romanticism.

Kant's influence, which at the present time dominates most of the German universities, continues to leave its imprint on philosophical production. Kantian investigation is guaranteed a firm basis by the *Kantstudien*, edited by Vaihinger and Bauch. The study of Kant shows partly an historical and partly a critical character. Minute investigation is unweariedly directed to the elucidation of obscure phases of the Transcendental Criticism, and epistemology strives indefatigably to advance by its own efforts along paths pointed out by Kant and to open up regions as yet undiscovered. The results have been greater since the *Kantstudien* has undertaken the publication of larger systematic monographs in the form of supplements. In this form there appeared last year three important studies: *Kant's Gottesbegriff in seiner positiven Entwicklung*, by Julius Guttmann; *Feuerbach's Straftheorie und ihr Verhältnis zur kantischen Philosophie*, by Oscar Döring; and *Kant und die Metaphysik*, by Konstantin Oesterreich. Amongst the other noteworthy articles one might mention Bauch's review of Chamberlain's *Kant* in the June number and

A. Messer's article, *Die Philosophie im Beginn des zwanzigsten Jahrhunderts*. We shall return later to the first of these. The latter article is a review of a volume published in 1904 by Windelband in commemoration of Kuno Fischer's eightieth birthday, to which Bauch, Groot, Lask, Liebmann, Windelband, Wundt, Rickert, and Troeltsch were contributors. One sees clearly here how the transcendental mode of thought, the sharp sundering of value and reality, has asserted itself through the whole range of philosophical disciplines. Messer regards as the future task of philosophy the formulation of a system of universal values, not theoretically but practically based. Bauch's article discusses Chamberlain's book, *Immanuel Kant: Seine Persönlichkeit als Einführung in sein Werk*, which appeared in 1905 from the press of Bruckmann. It contains a sharp polemic against the work. Chamberlain was already known as the author of *Grundlagen des neunzehnten Jahrhunderts*. Whatever one may think of the details of Chamberlain's work on Kant, it cannot be denied that the two fundamental defects pointed out by Bauch do affect in an important way the entire volume. In the first place, any attempt to portray Kant's intellectual physiology without an exhaustive preliminary characterization of his work, especially in the case of a thinker like Kant where the personal recedes so far into the background, is not likely to succeed. Furthermore, Chamberlain does not carry out his plan consistently, but mixes up numerous theoretical elements of the Critical Philosophy in the character portrait. Besides, he has not grasped the notion of the transcendental with adequate precision nor sufficiently differentiated it from the psychological. Also outside of philosophy, especially in various branches of natural science, the work has given rise to heated discussion.

Chamberlain's attempt to treat philosophy in intimate connection with the methods of natural science, is successfully carried out in a work of Cassirer.¹ The first volume, which is the only one so far published, treats the history of speculation from the Renaissance to Bayle. It contains, in addition to a general episte-

¹ *Das Erkenntnisproblem in der Wissenschaft und Philosophie der neueren Zeit*. By ERNST CASSIRER. Berlin, Bruno Cassirer, 1906. Erster Band, — pp. xv, 608.

mological introduction, three books: "The Revival of the Epistemological Problem," "The Discovery of the Concept of Nature," "The Establishment of Idealism." The author shows in the treatment of his theme the pronounced influence of the Marburg school, especially the influence of Cohen. This is seen chiefly in the fact that he discusses the history and systematic significance of the epistemological problem in immediate connection with the positive sciences, more particularly with mathematics and physics. Consequently such thinkers as Kepler and Galileo receive very detailed treatment in Cassirer's work as compared with other histories of thought. Also the minute discussion of Nicolas of Cusa is another case in point. The second volume, which is already announced, will treat the development of philosophical thought in its divided course through Leibniz and Newton. An exposition of the Critical Philosophy will form the capstone of this work, which is planned on broad lines. Kant's influence on the author is seen in his firm belief in the objective power of reason, not as a source of metaphysics but of experience. Cassirer regards the separate categories of investigation as variable; at the same time, he emphasizes the fact that they are referable to basic transcendental notions that are stable.

An enterprise of the well-known Marburg philosophers, Hermann Cohen and Paul Natorp, is executed in a similar spirit. The *Philosophische Arbeiten* are published by Töpelmann in Giessen, at irregular intervals, and consist mainly of dissertations and other essays expository of the transcendental method. In the announcement of the publication the following statement occurs: "Philosophy in all its problems is logically bound up with the actual progress of science. Philosophy is, therefore, the theory of the principles of science and so of the whole of culture. With Plato and Kant we call this vitalizing principle of culture idealism and apriorism." Amongst the essays published in the *Philosophische Arbeiten* up to the present time, Cassirer's study, *Der kritische Idealismus und die Philosophie des 'gesunden Menschenverstandes,'* is particularly worthy of notice. It is directed against the psychologism of the new Fries school, which will be referred to later. In future essays it would be desirable to have

not merely the connection between natural science and philosophy investigated, but also the relation between transcendentalism and psychology. The meaning of inner experience needs to be more sharply determined. Kant set himself the task in his *Kr. d. r. V.* of providing for experience a basis that would include general physics and psychology; he did not have merely physical experience in mind, as one might suppose from the interpretations of Cohen and his pupils. Immediate reference to physics is found rather for the first time in his *Metaphysische Anfangsgründe der Naturwissenschaften*. This examination of the connection between transcendentalism and psychology cannot possibly lead to psychologism, for the transcendental categories are not deduced from psychological concepts, but on the contrary the notions of psychology are here regarded from a transcendental point of view. This aspect of the problem has been little noticed as yet. In many ways the lack has had more disastrous results for psychology than for æsthetics, for psychology has been left suspended between empiricism and metaphysics; mathematical physics, on the other hand, has received the greatest stimulus from transcendentalism. On the above mentioned relation between psychological and transcendental categories, I have attempted to cast some light in my *Kant's Methodologie in ihren Grundsätzen*.

Kinkel's work on the history of philosophy¹ is filled with the spirit of transcendentalism. The first part, which appeared a short time ago, covers the period from Thales to the Sophists. The work has systematic rather than historical interests in view. Its purpose is to serve as an introduction to the nature rather than to the history of problems. This type of exposition is to be hailed with approval, for the history of philosophy, — except when written by great philosophers, and these for the most part tend to universalize their own biased personal point of view, — lapses too much into the philosophical and pragmatic, instead of following the important lines along which the evolution of problems takes place. The further continuation of the work will be

¹ *Geschichte der Philosophie als Einleitung in das System der Philosophie*. Erster Theil: Von Thales bis auf die Sophisten. By W. KINKEL. Giessen, Töpelmann, — pp. vii, 274 and 76.

eagerly awaited. In the preface, Kinkel emphasizes his connection with the Marburg school, especially with Cohen.

Neo-Fichteanism, to which we now turn our attention, is not of the most recent date. As already indicated, the way for it was prepared by Windelband, and the movement was given more precise determination by Rickert. It was helped by existing intellectual and spiritual needs. Evolutionism, which in the course of the nineteenth century permeated almost all regions of thought and action, gained ascendancy in Germany. Here, however, in the classic land of metaphysics and idealism, no system of philosophy based upon comparative physiology could maintain itself. That became plain in the doctrine of Nietzsche, which, in a peculiar way, was divided between evolutionism and metaphysics, and the influence of which has persisted to the most recent date. The double demand for a cosmic theory of productive energy, of measureless activity, and at the same time for a logical and ontological ultimate principle, was best met by Fichteanism. Fichteanism was more easily reconciled with transcendentalism than was Nietzsche's scepticism, which was formulated in avowed opposition to Kant. Under these circumstances Fichte's *Wissenschaftslehre* again came to the front. Even from the stricter Kantian school initiates poured into the camp of the philosophers of identity. Especially characteristic of this movement is a book by Medicus, a collection of thirteen lectures on Fichte, delivered in the University of Halle.¹ Medicus attempts in this work to sketch both the personality and the doctrine of Fichte. We have here an interesting tendency to regard Fichte not merely as the most authoritative interpreter of Kant, but to place him above Kant.

Schelling stood between Fichte and Hegel, and it might seem that, in the transition from Neo-Fichteanism to Neo-Hegelianism, Schelling's philosophy would have to be regarded as an intermediate station. But the fact is somewhat different. One could draw this conclusion concerning modern thought only in case one were to regard it merely as a slavish reproduction of the philosophy of identity. That is so far from being the case that

¹ *J. G. Fichte*. By F. MEDICUS. Berlin, Reuther und Reichard, 1905.

an essential element in the philosophy of identity, the metaphysical element, is quite in the background in modern speculation. We have noticed, indeed, that the tendency of German thought toward metaphysics demanded the revival of Fichte. We are to take this, however, *cum grano salis*. The statement aimed to point out a general reaction against positivism, not any especial sympathy for the excessive growth of metaphysical speculation that had marked the post-Kantian thinkers. In Fichte we have an epistemological feature of central importance, the fact, namely, that he had succeeded, in appearance at least, in deducing all the forms of thought from a *single teleological principle*, a thing in which Kant had failed. In a word, Fichte was a logician, as was also Hegel in still higher degree. For this reason a generation of thinkers which had approached the logical conception of reality with psychologistic antipathies and logical sympathies, was disposed to cast in its lot with these two philosophers. On the other hand, Schelling's essential significance is to be sought outside of logic, and consequently his influence is more strongly felt in other regions than that of exact philosophy. However, similar tendencies are not lacking in Schelling's work. When one regards as Schelling's greatest problem the determination of the relationship between nature and mind, between the unconscious and conscious, we can find its analogue in contemporary thought. I refer to the school of Eduard von Hartmann, author of the *Philosophie des Unbewussten*. With all its peculiarity and idiosyncrasy, this is the philosophy that is most nearly related to Schelling's Philosophy of Nature and Transcendental Idealism.

In view of the recent death of the founder of this system (June 6, 1906), we must take this occasion to refer to him. Hartmann must be reckoned amongst the great men whose death occurred last year. Whether one may strictly reckon him amongst the immortals is doubtful. One must, however, admit that the evidences of his activity have not by any means vanished. On the contrary, in late years the sphere of his influence has been extraordinarily widened, and while the astonishing external success of the *Philosophie des Unbewussten* was accompanied by no deep

intellectual consequences, but rather was calculated to diminish its author's prestige in specialist circles, even to such a degree that his immediately subsequent productions attracted relatively little notice, yet in his latest works he made an impression on the world of learning that was deep rather than broad. His *Kategorienlehre*, *Geschichte der Metaphysik*, *Moderne Psychologie*, and *Weltanschauung der modernen Physik* are works that cover not only a tremendous mass of material, but are rich in stimulus and points of view. The last named book, especially, attracted wide attention. The celebrated Russian physicist, Chwolson, in his work *Hegel, Haeckel, Kossuth und das zwölfte Gebot*¹ (all the more remarkable because of its original publication in German), cites von Hartmann as a conspicuous example of a scholar who has mastered a discipline remote from his own specialty and then has applied to that discipline the methodology of his own specialty. That is the judgment of an eminent physicist, who in the work just cited disproves Haeckel's physical theses by *reductio ad absurdum*. Von Hartmann's latest writings are concerned with biology, especially his work, *Das Problem des Lebens*,² published last year a short time before his death. In this treatise he attempts to combine neo-vitalism, on the basis of which he combated Darwinism years ago, with the metaphysics of the Unconscious.

The most prominent pupils of Hartmann are Drews and Leopold Ziegler. Both of these are advocates of the philosophy of the Unconscious, particularly the latter in his recently published *Der abendländische Rationalismus und der Eros*. They do not see in the philosophy of the Unconscious a mystic aberration from Kant, but the only possible interpretation of Transcendentalism. The foundation of this view is, of course, a *psychologistic* and not a logical foundation. They interpret the categories not as pure intellectual values, but as psychological processes, and from this standpoint they proceed, not inconsequently, to the assertion that processes of this sort must belong to the realm of the uncon-

¹ Braunschweig, Vieweg und Sohn, 1906. This may be regarded as a supplement to the polemic which Adickes began in his controversial monograph, *Kant contra Haeckel*.

² Haake, Bad Sachsa im Harz, where Hartmann's other chief works appeared.

scious, for in consciousness there is neither pure activity nor pure unity. They base their views, therefore, not so much on transcendental logic as on transcendental psychology. They also realize in a definite way the transition from Kant to Fichte and Schelling. The motives, however, by which they are determined belong to metaphysics and not to epistemology. The significant element here is the view that, within the psychology of consciousness, transcendental values cannot be psychically hypostasized, that wherever reference is had to such hypostasization, it must be completed in the realm of the Unconscious. Hartmann's philosophy of nature has also found adherents, especially amongst the neo-vitalists. To them belongs Reinke the well known botanist and biologist of Kiel. It is also worth noting that his influence dominates a number of prominent periodicals as, *e. g.*, Delbrück's *Preussische Jahrbücher* and the monthly review *Deutschland*.

It may be surprising to some persons that I include Theodor Lipps amongst the partisans of the philosophy of identity. This partisanship must not, however, be regarded as a condition of philosophical subserviency. In an address which this distinguished scholar delivered on September 17, 1906, before the Association of German Naturalists and Physicians, he confessed essentially to the standpoint of the philosophy of identity. What we call law, he says, is not found in phenomena themselves, but is a norm created by the human mind. In phenomena are expressed only particular qualities and processes; a norm concerns the universal. Consequently, one cannot say that it is an abstraction from phenomena or is derived from pure description of phenomena. If, nevertheless, phenomena in their flux confirm the norm, if laws constructed by our understanding are at all applicable to external nature, this is possible only under the presupposition that a rational, creative mind ontologically underlies the conformation of nature. An universal cosmic consciousness must then include all reality, internal and external. The mechanistic view of nature in its ultimate consequences forces one to this conclusion.

The naturalist arrives at no true reality, for mass, which alone

represents reality for him, is dissolved into mathematical relations, into relational concepts, which, although they contain a meaning, have no content. The concept of energy is a relational concept of this sort, a concept which represents no objective reality, but merely a methodological procedure of the naturalist. In general, one may say that most of the attempts of this sort in the interpretation of nature, are anthropomorphic. If one is to understand by the Unknown, for which the naturalist substitutes the symbol of matter, a sensible something, then we are forced to ascribe to it what we immediately experience, viz., a consciousness which, like human consciousness, is embraced in the divine All-consciousness.¹

This is, indeed, a conception which is opposed to the central thesis of Hartmannism. For in the latter the universal consciousness is antithetic to the Unconscious and signifies a negation of the individual form of consciousness. But the basic motive of the philosophy of identity, — the common root and inner unity of nature and spirit, — is applicable to both movements. We shall meet with other attempts to revive Schelling's ideas in the neo-romantic movement, which will be discussed later.

We have already said that the chief philosophical event of the last year was the revival of the Hegelian philosophy. This was not a sudden thing, but was a long time in preparation. Hegelian influences had long been at work, at least silently. These are noticeable in Hartmann, Bahnsen, and even in Nietzsche. They are visible, wherever Neo-Kantianism turned decisively from the empirical to the rational, as in the work of Cohen and Volkelt. Further, it was plain that a movement which had once got beyond Kant, would not stop with Fichte, but would find its goal in Hegel's intellectualism. For when we reduce the distinction between the two thinkers to the most general formula, purified from all historical particularity, we find realized in Hegel the extremest consequence of intellectualism, since here we have no ethical norm as the regulator of thought; but it bears its own end within itself and, accordingly, itself

¹This address of Lipps appeared as a brochure from the publishing house of Winter, Heidelberg.

creates the immanent means for its realization. There are two moments that are decisive for Hegelianism: on the one hand, the elimination from logic and the doctrine of the categories of every non-rational factor, whether this be, as with Kant, the manifold of perception, of sensibility, or whether it be, as with Fichte, the principle of practical reason; on the other hand, the dialectical method. Emphatically as Cohen rejects Hegel in the first volume of his *System der Philosophie (Logik des reinen Erkennens)*, still he approximates the Hegelian position in deriving the principle of multiplicity from the understanding and not from sensibility, and he converts space and time into categories, as the French philosopher Renouvier had done at an earlier date. F. J. Schmid's *Grundzüge der konstitutiven Philosophie*, by virtue of its consistent intellectualism, is also related to Hegelianism.

The main reason, however, for regarding 1906 as Hegel's year is the appearance in Holland of the *Encyklopädie* in German,¹ a comprehensive volume with an exhaustive introduction by the editor. This is a noteworthy event, giving evidence, as it does, of the influence exercised by German ideals beyond German borders. While in Italy Benedetto Croce is busy with the propaganda of Hegelianism, Bolland is concerned with the same task in Holland. The manner in which the latter arrived at the Hegelian position is also interesting. He began as an enthusiastic admirer of Hartmann, and only a short time ago, in his *Collegium Logicum*, made the decisive transition to Hegel. He is an Hegelian not merely as panlogist, but also in respect to the dialectical method. The strictly intellectualistic tendency of modern German thought culminated in Hegel. By looking back we can fix upon three tendencies that dominate our time, all of which find in Hegel their starting point. In the first place, the transcendental, logical tendency, which, excluding all empiricism and psychologism, aims to deduce the fundamental characteristics and categories of knowing from pure concepts. Secondly, the metaphysical tendency, which was active in Neo-Fichteanism as well as in the philosophy of the Unconscious, and which manifested

¹ [The reference is evidently to Hegel's *Encyklopädie der philosophischen Wissenschaften*. Herausgegeben von Bolland. Leiden, 1906. — Translator.]

itself as a reaction against the strictly immanent principle of positivism. Thirdly, the monistic tendency, which clung to the unitary character of the metaphysical ultimate. These several tendencies found support in Kant's philosophy, but could not be brought to equilibrium in it. Because of his being divided between psychology and logic, Kant could not be a pure transcendentalist. Further, because he established no distinct boundaries between immanent and transcendent reality, he never became a clear metaphysician. Further, he was and remained a dualist, in so far as he advocated the irreconcilability and incompatibility of sensibility and reason, of the empirical and intelligible worlds. Hegel, on the contrary, is a pure logician, for he ascribes to the self-unfolding concept dominion over all reality, over form and content. He is a metaphysician, for he hypostasizes the concept; he must hypostasize it, because a productive principle that creates reality represents not merely essence but an existence, a real being. He is a monist, in so far as he is a panlogist, in so far as he identifies the universe with logical function.

The movement from Kant through Fichte to Hegel is undoubtedly the dominant trend in the most recent German thought, but it is not the only movement. Alongside of this we have an attempt to revive the philosophy of Fries. We shall give a *resumé* here of its most important elements. In connection with Neo-Kantianism and the revival of Fichte and Hegel, we have already mentioned the fact that the controversy between psychologism and logic stands to-day in the forefront of philosophical interest, and that to all appearances pure logic is destined to carry off the victory. In this important controversy the issue depends on two things, formal and transcendental logic. In the first place, the question is whether the laws which characterize our thought in general without regard to its content, — the principles of identity and contradiction and the principle of the excluded middle, — are valid independently of the way in which they come to expression in man psychologically. Then comes the further question whether the categories of the transcendental logic, which are constitutive for our knowledge and for our conception of objective reality, are to be accredited with the inde-

pendence claimed for the formal laws of thought, or whether they are to be regarded and applied merely as rules for the inter-relating of psychological processes, as Hume understood them. The advocates of psychologism adopt Hume's standpoint; for every logical law, even the highest and most abstract, in order to come to consciousness in man, must be given to him as a psychological process. Also the norm which prescribes for us how we think, how we *ought* to think, contains reference only to how under given circumstances we actually think. The pure logicians do not deny this. Certainly their norms and ideals are in need of psychological realization, are therefore psychological phenomena; but their cogency and their universal validity are not dependent on their becoming phenomenalized in psychological processes. They would continue to exist to all eternity, even if no human individuals were conscious of them. In order that mankind should have knowledge of them, they must be given in psychology. However, they are not endowed with truth at that moment when they are found psychologically; on the contrary, their truth is essentially in them. The logicians, therefore, do not demand the impossibility of transcending the limits of consciousness with the organ of consciousness. They merely introduce a new standpoint from which to survey the matter, viz., the normative, evaluating standpoint along with the psychological, descriptive standpoint.

But there is a new task for the logicians. Just because they concede that logical norms and ideals, in order to be known, must somehow come into human consciousness, they find themselves confronted with the necessity of describing more precisely this peculiar mental situation. For the mind performs here an act of judgment which says that these logical norms and ideals are independent of their being thought, independent of their momentary manifestation in consciousness. This is no longer a psychological problem. For the characteristic mark of psychologism is that it recognizes no universal, independent values and norms, that it divests these of their absolute character and concedes to them merely relativity. They are for psychologism natural laws of thought and imagination, and consequently are

not capable of being divorced from their relation to factual thought and imagination. If there were no thinking man, then the natural laws of his thought would be meaningless, just as the laws of mechanical motion would become meaningless, if not false, if the world's process were to stop. The logicians, on the other hand, maintain the universality and independence of their norms in contradistinction to natural laws. When they endeavor to seize upon the psychological expression of this distinction, they are not for this reason open to the charge of psychologism. Investigations of this sort have been declared by so radical an anti-psychologist as Husserl to be absolutely necessary, and the second volume of his *Logische Untersuchungen* is devoted to them. Here reason is confronted with a singular paradox, since it can give expression to its transpersonal character only in personal form. Logical laws are independent of the fact of their being apperceived by an individual. They are also independent of all modalities of such apperception, independent of the feeling of evidence, even if this feeling furnishes man with a witness for that independence. In contradistinction to psychologistic investigations, which direct their attack against pure logic, Husserl has called his studies (undertaken in the service of pure logic) "phenomenological," and therewith introduced into the controversy an important notion to which we can hold fast. It may be remarked here that these problems go back to Kant. We have already called attention to the fact that Kant sketched a comprehensive transcendental psychology alongside of his transcendental logic, and it was especially the former that led to the *Philosophie des Unbewussten*. This transcendental psychology is not to be interpreted necessarily in metaphysical terms; it may be regarded phenomenologically. What Kant wrote concerning sensibility, understanding, imagination, apperception, and reflection must not be referred to unconscious mental powers which in some mysterious way beget the categories. On the contrary, they may be regarded quite as well as a phenomenological survey of the various modes in which different cognitive values, mathematico-physical concepts, schemata, ideas, and symbols come to consciousness. Also the three grades of evidence which

Kant grouped under the term 'modality,' — possibility, reality, necessity, — appear in this light as phenomenological rather than logical values.

While the great successors of Kant, especially Fichte and Hegel, concentrated their attention on the objective content of logic, with the help of which they believed they could gain a deeper insight into cosmic processes, Fries turned his attention to the subjective, psychological interpretation of these logical laws. Consequently, he has generally been regarded as an advocate of psychologism, who has stripped epistemology of the sovereignty given it by Kant and reduced it to terms of empirical psychology. His influence, therefore, has materially diminished recently, owing to the decided ascendancy of logic. The new Fries School of Göttingen marks an organized opposition to this well-nigh official neglect. It takes its stand on the assertion that Fries was not an advocate of psychologism, but a phenomenologist, that he made no attempt to reduce the Kantian categories to empirical rules of association or to ground their epistemological value in those rules, but that he merely aimed to show how the categories presented themselves to human consciousness.

Elsenhans, Privat-Docent in Heidelberg, who stands outside the Fries School and is to some extent its opponent, has attempted to explain this point of view in a work of two volumes.¹ The first (historical) part, *Jakob Friedrich Fries als Erkenntniskritiker und sein Verhältnis zu Kant*, aims to set forth the essential features of the Fries doctrine, especially in so far as it purports to be a phenomenological continuation of the Kantian Criticism. Fries's theories of imagination and reflection, especially the latter, which is the most important factor in his system, are exhaustively discussed by Elsenhans. It appears from the discussion that Fries was really not an advocate of psychologism in the strict sense. He agrees with Kant in regarding it as absurd to attempt to base the laws of the understanding upon rules of empirical psychology. He regards the significance of these laws as an *a priori* given, consequently as something that is not deducible

¹*Fries und Kant: Ein Beitrag zur Geschichte und zur systematischen Grundlegung der Erkenntnistheorie.* By TH. ELSENHANS, Giessen, 1906.

from empirical procedure; he characterizes them as metaphysical. But the way in which man becomes conscious of them is not *a priori*; this takes place rather within the range of inner experience, it is given in reflection, by means of which man discovers the metaphysical values and laws of mind. This subjective mode of discovery is what Fries calls transcendental, and he cites Kant in evidence, who understood by transcendental knowledge, not such knowledge as refers immediately to objects, but that sort of knowledge which explains for us the constitution of experience as a whole. This important view is Elsenhans's plumb-line in the interpretation of Fries. It is true he does not at all deny the fact that Fries was inconsistent in carrying out his phenomenological position. In certain passages we have unmistakable psychologicistic views. In the second volume Elsenhans intends to develop an essentially independent epistemology, having reference, however, to Kant and Fries.

A closer connection with Fries is maintained by the above mentioned Göttingen School, whose leader is Leonard Nelson. Its organ is a series of monographs (published by Vanderhoeck and Ruprecht), the third and fourth of which appeared last year. They all contain noteworthy contributions to philosophy. Two were written by Nelson: *Bemerkungen über die Nicht-Euklidische Geometrie und den Ursprung der mathematischen Gewissheit* and *Vier Briefe von Gaus und Wilhelm Weber an Fries*. The school's program was announced by Nelson in the first monograph of the series: *Die kritische Methode und das Verhältnis der Psychologie zur Philosophie*. In this he repudiates the transcendental prejudice, that consists in the attempt at a logical deduction of the categories of knowledge, and says that the fundamental problem of philosophy is the investigation of the form of the categories in psychological phenomena. To this dislodgment of logic by a one-sided phenomenology, Cassirer reasonably objects (in *Der kritische Idealismus und die Philosophie des "gesunden Menschenverstandes"*) that it lowers the critical problem to the level of the naïve understanding.

This cross-section through contemporary German speculation exhibits an extraordinarily interesting organization in the grouping

of its strata. Kantian criticism forms the central point about which the various philosophical movements develop in constantly widening concentric circles. First comes Neo-Kantianism, which has lost nothing of its inner force and external efficacy by being compared with the more extreme idealistic systems. Then comes Neo-Fichteanism, then the philosophy of the Unconscious in close relationship with Schelling's system, and Neo-Hegelianism. The first and third are concerned with the problem of an unitary logical method, the second with the problem of an unitary ontological method. All three are in principle concerned with the application of the categories, with the knowledge mediated by them; whereas the new Fries School fixes its attention on the subjectively given, its status in human consciousness, and thus the school takes a peculiar mediating position between phenomenology and psychology. All of these movements get their bearings from Kant, to a greater extent even than did their prototypes, the Post-Kantian philosophers. The dominating significance of the Critical Philosophy at the present moment comes to expression here. At the same time, one sees that the current attempts to revive Criticism have in view its definitive value and are not concerned with empty reaction, but with its reintroduction on a higher plane. Fichte, Schelling, Hegel, Schopenhauer, Herbart, and Fries aimed to go beyond Kant, to leave him behind. And so it happened that the most valuable critical ideas were early buried in the mass of new systems, and Neo-Kantianism was obliged to rediscover them before it was in a position to elaborate them further in any fruitful way. Modern investigation, however, has at no time fallen into this extreme. The fundamental results of Kant have in general been retained. The sharp distinction between the transcendental, metaphysical, and psychological standpoints, between the problems of logical values and real existence, the inquiry into the objectivity of knowledge, not in the service of polemic but of the rationale of experience, are elements that have been retained.

Methodological and epistemological interests dominate contemporary philosophy to such a degree that metaphysical questions, which a few years ago formed the focus of discussion, have been

almost silenced. The recent work of Ernst Mach, *Erkenntnis und Irrtum*, seems to characterize the state of the case. The author, who, in his *Analyse der Empfindungen*, ranged himself on the side of the anti-metaphysicists, is amongst the most popular thinkers of today. His polemic against Kant, against every form of apriorism and metaphysics, has created a profounder impression on public opinion than the works of Schuppe and Avenarius, which serve the same aim, but are marked by greater knowledge and thoroughness, although more difficult and abstract. In his last book¹ Mach appears mainly in the rôle of methodologist, investigating as he does the means and instruments of concrete inquiry in the special disciplines. Another thinker, Richard Wahle, whose position resembles in many respects that of Mach, but who rejects only a subjective, idealistic metaphysics and not metaphysics as such, published last year a volume on the mechanism of mental life. The first part of the volume is devoted to epistemology, the second part to psychology. An interesting feature of the work is its vigorous attack on Kant, which in principle is merely a reiteration of the author's position as defined in his earlier writings, *Das Ganze der Philosophie*, and *Spinoza*. It is fundamentally lacking, however, in real justification, for Wahle interprets Kant psychologically and sees in the Kantian categories merely subjective energies arising out of the depths of the human soul. In opposition to this alleged Kantian view, Wahle denies all psychological origin of the categories and sees in consciousness merely a secondary product of original factors unknown to us, which factors exist in and for themselves and independently of our consciousness. It is a peculiar mixture of Positivism and Spinozism that Wahle advocates, and his unmistakable approximation to materialism causes him to attack vehemently Neo-Spinozism as mediated by Schelling and modified by Hartmann and Lipps.

In the foregoing we have outlined the main epistemological movements and in general the theoretical aspect of recent philosophical activity. But the picture would be incomplete without adding to it the ethical and æsthetic speculation, which develop

¹*Der Mechanismus des geistigen Lebens.* Braumüller, Wien und Leipzig, 1906.

on a broader basis and tend to adjust themselves to a unitary system of philosophy. Here immediate feeling counts for more than abstract reflection, here temperament rather than the understanding lays claim to its rights. These culture movements demand attention all the more, because the revival of interest in philosophy in Germany is intimately connected with them. Evidence of this revival is given by the appearance of a weekly philosophical journal, edited by Remner and published by Rohde in Leipzig. It is almost self-evident that the beginning here would be made with Nietzsche, the traces of whose influence on our modern thought are deeper than those of any other thinker. Concrete, practical philosophical work in the last decades takes its bearings from Nietzsche almost as completely as theoretical speculation takes its bearings from Kant. To follow the fortunes of his philosophy from its inception to the present would be useless and tedious in this place. Further, it would be futile to undertake to sift the immense Nietzsche literature that has appeared in the book-trade year after year and to examine its leading ideas. I shall, therefore, refer to him only in so far as there is apparent in his philosophy a fundamental tendency that finds reflection in a general movement. And first of all, one must note that Nietzsche's influence seems at the present date to have passed its zenith.¹ In proportion as Nietzsche gained recognition amongst academic philosophers and became a philosophical classic, in proportion as he lost in the range of his influence, to this extent he gained in the depth of his influence. And this is not a regrettable fact. For it cannot be denied that the extraordinary eagerness with which the masses mastered Nietzsche's ideas, has been the fruitful source of false interpretations, to which danger his philosophy was from the start exposed because of its iridescent character. His criticism of ethics was regarded by atheists and anarchists as a declaration of war against every form of universal validity, as a nihilistic denial of the concept of duty. The further development of Nietzscheanism has, in this respect, undergone a fundamental change. It has shown that

¹ Mention should be made here of the pocket edition of Nietzsche's works, of which five volumes have appeared, containing the writings from the *Geburt der Tragödie* to the *Morgenröte*.

Nietzsche was no opponent of morality, that on the contrary he was a pronounced moralist, that his scepticism was directed exclusively against the dominant traditional ethics and not against ethics in general.

Vaihinger in his book, *Nietzsche als Philosoph*, has given honest expression to this view, and the same view appears in Simmel's *Schopenhauer und Nietzsche*.¹ This volume of Simmel contains an extraordinarily interesting analysis of the tendencies of modern culture, especially its pessimistic and optimistic motives. He regards the view-points of Nietzsche and Schopenhauer as absolute positions, which are just as little demonstrable as they are refutable. Both originate in an elemental feeling of value, which the survey of the world brings to consciousness, and they denote the extreme poles between which individual and social feeling oscillates. Ultimately the question whether a man is pessimist or optimist is decided not by any theoretical consideration of pleasure and pain, but by the reaction of the individual to factual existence. There are men to whom not merely pain, but even the thought that anything exists, is fearful and unendurable; there are others who derive from the same thought a fullness of happiness that far outweighs all possible pain. Neither the one nor the other of these men can be convinced of the correctness of his opponent's view, just because one is concerned here not with logical, objective arguments, but with the arbitrariness of basic personal temperament. One may be converted to epistemological realism or idealism from without, but a man is born to his pessimism or optimism. It is our task and our right, as Simmel says, to assume the feeling-attitude of Schopenhauer and Nietzsche, to keep our minds open to the influence of both poles, and to allow them to oscillate between the heights of triumph and the depths of despair. Especially important for estimating the contemporary attitude of mind is the way in which Nietzsche is adjudged. Simmel insists that the creator of *Zarathustra* should not be confused with the moral subjectivists, the anarchistic sceptics, nor with Max Stirner and the Sophists. On the other hand, Simmel emphasizes the relations of Nietzsche's philosophy, relations that were not clear

¹ Leipzig, Duncker und Humblot, 1906.

to Nietzsche himself, especially the relation to the Kantian philosophy of his notion of eternal recurrence. This view of the connection between Nietzsche's views and antecedent theories bids fair to maintain itself. It constitutes a new step toward the organic unification of our intellectual civilization. The attempt to bring Kant and Nietzsche closer together, to reduce them to the expression of a single formula without destroying the individuality of their doctrines, is really sublime. In spite of the differences between these two philosophers which Simmel concedes, still the tendency of his book is towards this goal of unification. For Nietzsche's guiding ideal, according to Simmel, is the ideal of *superiority*, therefore not so much the will for power as the will for *value*. In this respect Nietzsche approximates the Kantian ideal of free moral personality, and all the nearer when we take into account the fact that the differences are explicable in part by the confusions of Nietzsche, as, *e. g.*, by his confusion of mental and social aristocracy. This may not, indeed, serve the purpose of the vulgar adherents of Nietzsche, who are simply intoxicated by the suggestive power of confusions of this sort. The real exponents of intellectual culture can only wish that a philosophical event like Nietzsche's system might not be swallowed up in mere sensations, but might leave behind it deeper and more permanent traces of its efficacy. And if we regard Nietzsche not as an irreconcilable opponent of the proclaimer of the categorical imperative, but rather as a natural supplement to Kant, then the continuity of German philosophy is exhibited on a splendid scale, and we may hope that on this broad foundation new structures of permanent value will be erected.

There is, however, a factor which causes Nietzsche's creation to sink somewhat into the background, a factor which at the start was favorable to its advance. That is the neo-romantic trend of the age. Doubtless there is no lack of connecting points between Nietzsche and romanticism, but they are not sufficiently evident to permit the two movements to run continuously parallel courses. Also, in many ways Nietzsche is anti-romantic. His religious scepticism, especially, brings him into conflict with the romantic group of ideas. The renaissance of religious interests is

almost the chief factor in the romantic movement. It expresses itself as a preference for the speculative, theoretical, gnostic ideas of the Post-Kantian philosophers, of the mediæval German mystics.¹ To this religious factor one must add æsthetic and literary factors. Realism and naturalism pushed to extremes have caused a reaction, which has shown itself in a vague, misty symbolism. The reactionaries have gone in search of inner rather than outer reality, and so a way has been prepared for the renewed study of the romanticists, who were the first to open up the night side of the soul for philosophy and to introduce it into art. The impression which a glorifier of the Unconscious, like Maurice Maeterlinck, made in Germany, prepared the way for the enthusiastic admiration now enjoyed by Novalis. Indisputable is the charm of romanticism, in which art and philosophy interpenetrate one another and aim to form a harmonious whole; so, too, the neo-romanticists seek for a passage from æsthetic to philosophical feeling. Schelling, the classical philosopher of the romantic period, triumphs along with Novalis. While we found the influence of Schelling less marked on the exact, epistemological side of philosophy, and discovered its clearest traces really in Hartmann's system, he undoubtedly surpasses both Fichte and Hegel in his influence amongst the neo-romanticists. The significance of the unconscious for the structure of consciousness, its creative power, the deeper unity of nature and spirit, are factors that ally themselves more closely with popular feeling than does the dialectic of concepts. The neo-romantic movement has gone forth under Schelling's banner, a movement that recognizes no ecclesiastical dogmas, yet is disposed to promote the cause of the religious consciousness. It is not opposed to clear, logical knowledge, but believes it can secure a firmer, more immediate relation with the universe through mystic feeling. For a movement such as this, Schelling, the philosopher of art, the artist amongst philosophers, the dithyrambic poet of concepts, and the mystic of dialectic, was predestined to be the leader.

The external focus of the neo-romantic activity in Germany is

¹ In this connection one must mention Karl Eugen Schmitt's *Die Gnosis*, the second volume of which has just appeared.

the publishing house of Eugen Diederichs in Jena, which in this connection has just issued an instructive bulletin entitled *Der Kultur der Seele*. It covers the work of the firm from the year of its establishment in Florence (1896) to 1906. The publications are classified in terms of subject and view-point, and the classification shows a predominant neo-romantic character. This is seen in such sub-divisions as "Culture of the Soul," "Life with Nature," "Folk-life," "Philosophico-religious Culture," "Belles-lettres," "The Older Philosophy and Mysticism," "German Idealism." The large number of publications in these several fields, written in part by distinguished authors, bears witness to the astonishing proportions which neo-romanticism has assumed in contemporary German thought. It would be difficult to find a comprehensive formula to express its significance. One would have to define not only neo-romanticism but also romanticism, and this has never been successfully done. Certain unquestionable characteristics can be pointed out, and these are in part noted in Diederichs's bulletin as the universal marks of neo-romanticism: a pronounced pantheistic tendency, the conviction that matter and spirit are manifestations of a single force, belief in the organic unity of human personality and the universe, belief also in the marvelous power of the human soul to transcend the barriers of individuality and to penetrate into the infinite, and the disposition to regard limitless nature and reality itself as personal. The firm has performed a useful service in the publication of the works of early and recent mystics. Amongst these, the writings and sermons of Meister Eckhart occupy the chief place. It is also intended to publish Ruysbrock, Suso, Valentin Weigel, Thomas à Kempis, Baader, and Görres. Further, a series of theoretical investigations of romanticism and neo-romanticism has been published by Diederichs, works for the most part of metaphysical and mystical tendency.

Deserving of mention here is the *Philosophie der Romantik* by Erwin Kircher, published posthumously under the editorship of Heinrich Simon and Margarete Susman. The book attempts to expound the most important factors of the romantic philosophy, and treats with especial attention and regard the system of Schel-

ling. Also Leopold Ziegler, whom we have already mentioned as an adherent of Hartmann's philosophy of the unconscious, is closely allied with neo-romanticism. His neo-romantic leanings are clearly seen in his latest work, *Der moderne Rationalismus und der Eros*. By philosophical Eros he means a specifically romantic impulse, the impulse to metaphysical, intellectual theory, the history of which he sketches from Plato down through the whole of occidental speculation. He discusses exhaustively the philosophers of identity, especially Hegel. He distinguishes himself from the Neo-Fichteans and Neo-Hegelians by the same two tendencies by which he distinguishes them from Hartmann. He sees in the postulate of a metaphysical substance the foundation of his system. He abandons, however, the methods of dialectic and deduction, in the place of which he sets the method of transcendent induction. That is, philosophy should derive from experience conclusions as to its metaphysical presuppositions. With this is bound up the further consequence that philosophy has no absolute, eternal truths to offer, but can furnish only an approximate solution of the riddle of reality. In spite of this deviation from the philosophers of identity, who fancied they had solved the world-problem without a surd, the philosophy of the Unconscious and especially the views of Leopold Ziegler are very closely related to neo-romanticism. Belief in a mystic power of the human soul, whereby it is able, on the one hand, to assimilate and copy the whole content of the universe, and is able, on the other hand, to generate out of itself the world's content, — this is the common belief and ideal that pervades the entire group of romantic theories.

In conjunction with the above, we should mention the work of Heinrich Simon, which attempts to bring the views of Novalis into the light of modern epistemology.¹ The author, who shows the influence of Rickert, proceeds in the most systematic way and follows up every clue that leads from Kantian Criticism into the camp of speculation, metaphysics, and epistemology.

Theodor Lessing, in his book, *Schopenhauer, Wagner, Nietzsche*, an introduction to contemporary philosophy, is to be classified

¹ *Der magische Idealismus*. Winter, Heidelberg, 1906.

amongst the neo-romanticists, although less because of the manner of treatment than because of the range of problems discussed. The reader who expects to find here exact philosophical elucidation will be disappointed. It contains brilliant psychological observations, subtle analyses, which to some extent are philosophically empty. The selection of representatives of modern thought is interesting, especially in reference to Richard Wagner. One must bear in mind that Wagner is the ideal center of neo-romanticism. And this is quite intelligible, for as thinker and artist Wagner stands on the boundary line between the two periods; he closes the period of classicism and romanticism, and he prepares the way by his technic and style for the modern period.

It is difficult to pass judgment on the permanent value of neo-romanticism; for we are standing too deep in the current itself to be able to determine its direction and goal. It cannot be denied that it has produced much that is fantastical and absurd. On the other hand, the fact should be emphasized that it has immensely widened the range of problems, enriched philosophical possibilities, and above all, as opposed to a leveling naturalism, it has laid stress on the differentiating power of the human soul on the ideal claims of virtue, and has preserved our continuity with the great past of classical philosophy.

It is gratifying that along with the neo-romantic movement, Goethe's view of life begins to stir the minds of men in increased measure. Its wonderful harmony, the way in which it interweaves and reconciles abstraction and intuition, idea and experience, reason and sensibility, mysticism and rationalism, secure for it a counterpoise against biased extremes, against unbridled fancy. The part played by Goethe both in the art and philosophy of the present is described in Simmel's recent work, *Kant und Goethe*.¹ One can see in the title reference to a synthesis important for culture, the conjunction of the two greatest intellectual heroes of our modern age. Simmel is first of all concerned with pointing out, amidst apparent agreement, the differen-

¹ In a collection called *Die Kultur*, edited by Gurlitt and published by Bard and Marquard, Berlin, 1906.

tial element in the temperaments and intellectual organization of the two men. And here Simmel maintains his reputation as a master of analysis. As he had done a few years ago in his book on Kant, so here he shows how Kant looked for the point of contact between subject and object as falling somewhere outside of perceptual reality, while Goethe discovers it in nature itself. Kant's essential gift was in analysis and definition, while Goethe's genius manifested itself in unification and synthesis. Kant saw the essence of the world in the moral law, that places an immeasurable gulf between the ideal and the real, while Goethe looked upon morality as well as knowledge, religion, and art merely as an emanation of cosmic force. Yet in spite of these differences, the common element remains: belief in the metaphysical value of the world and the demand that the value be realized in earthly existence. Under the banner of these two, Kant and Goethe, German culture will conquer.

It is difficult to sift and evaluate contemporary philosophical movements. The difficulty is greater when one attempts to prophesy their future, and yet we can hardly think of the one without the other. In testing contemporary philosophy in terms of its truth or error, one surveys to a certain extent the consequences that will arise from truth or error for future activity. We have observed that philosophy now tends toward a return to Post-Kantian idealism. In such a return we are confronted with the disastrous possibility of reaction, of an uncritical historicism, dominated by a purely antiquarian bias, holding on to the past merely for the past's sake. But we shall hope that current German philosophy will not fall into this extreme, that it will take from Fichte and Hegel only the elements of permanent value. By this is meant chiefly the transcendental idea, which was wrought out by those thinkers with less confusion through psychologism than was true of Kant.

We may claim as permanent results of contemporary philosophy the delimitation of transcendentalism from psychologism, the ideal from the real, norm from nature, value from reality. Further, we may note an advance in the fact that the psychological form in which logical laws appear has again been subjected to

examination, that the phenomenology of logic is being studied, without forgetting that the latter is not for that reason dependent on the former. This advance, although not always clear, finds expression in the revival of Fries's philosophy. A great practical rather than theoretical advance is marked by the attempt to transform philosophy into culture, to make for it a broad foundation amongst the people. And here there is need of the pilot's art to steer clear of the two dangerous possibilities of popularization, — boundless mysticism and shallowness. The former shows itself especially in the growth of occultism, for which we have ample evidence in the publication of periodicals and books. The religious feeling that reveals itself in the neo-romantic movement will not, it is hoped, lend support either to caprice or to dogmatism, but, remaining in its legitimate sphere, will translate into the language of feeling the ineffable in the human soul and the universe. Besides, philosophy has the task of investigating the problems of religion logically and epistemologically, and there are many evidences that such efforts are under way. Here opens a new path to metaphysics, which, after long neglect, will doubtless be eagerly discussed again. For this the influence of Kant and Goethe is guarantee, both of whom, in spite of their intellectual interest being focussed on reality and experience, everywhere point to transcendental values and ideals.

OSCAR EWALD.

VIENNA.

PURE EXPERIENCE AND REALITY.

IN this scientific age no philosopher feels comfortable, if he finds that his doctrines bring him into conflict with scientific facts. Scientific theories at variance with his own philosophical theories he can venture to criticise and reject, but facts made out by science he prefers not to deny. As Professor Dewey says: "One is entitled to enter a *caveat* against any attempt to impose science, whether physical or psychological, *as* philosophy. . . . Yet most empiricists would hardly be willing to adopt any philosophic position of which it could be clearly shown that it depends upon ignoring, denying or perverting scientific results."¹

Now the philosophy of pure experience which has recently been developed by Professors James and Dewey has been suspected by many of involving just such a denial of 'scientific results.' If the reality of anything is the reality it has as experienced and only when experienced, then it would seem that the sciences which deal with objects purporting to have existed before any verifiable experience do not have to do with reality; yet these very sciences claim to prove as scientific fact the real existence of objects prior to zoic periods. Hence the philosophers of pure experience feel it incumbent on them to set themselves at rights in this matter.

Professor James has recently so defined his position that it ceases to have any anti-realistic suggestions which might bring him into contradiction with the sciences of geology and astronomy. In answer to a question put to him by Mr. Pitkin, as to whether his theory precludes the possibility of something not experienced, Professor James says: "Assuredly not . . . how could it? Yet in my opinion we should be wise not to *consider* any thing or action of that nature, and to restrict our universe of philosophic discourse to what is experienced *or, at least, experienceable*."² What kind of reality the experienceable has when it is not ex-

¹ *Journal of Philosophy, Psychology, and Scientific Methods*, Vol. III, p. 253. Hereafter this journal will be referred to simply as *Journal*.

² *Journal*, Vol. IV, p. 106. The italics in the last four words are mine.

perienced, Professor James does not tell us, at least in his recent writings. In his *Psychology* there was no attempt to abbreviate such reality and write it down to a tentative programme, waiting for the signature and seal of experience to put it into execution. Likewise there is nothing in the address on the pragmatic method, delivered before the Philosophical Union of the University of California, which should commit him, so far as one can see, to denying the full and genuine reality of the things which, though not experienced, make a tremendous difference in what we do experience and shall continue to experience. In default, therefore, of any express avowal by Professor James of adherence to the notion that unexperienced but experienceable reality is incomplete reality, one may assume, provisionally at least, that there is nothing in his experientialism to which a scientist may reasonably object on the score that it deprives him of the very objects of his investigation. Whether Professor James's philosophy remains pure experientialism when it is interpreted in the light of the sentences just quoted, is another question which does not concern us here.

Professor Dewey has taken another course. He has tried to put himself at one with science by admitting *something* "non-contemporaneously experienced."¹ But he also maintains his pure experientialism by qualifying this admission: the pre-experiential something is not to be considered completely real. The readers of Professor Dewey's *Studies in Logical Theory* must have been prepared for such a statement from him. In that work he insisted that the object of thought, when it has emerged from the experience of stress and strain and appears in a subsequent tranquil experience as the result of pragmatic adjustment, must not be read back anachronistically into the time preceding the adjustment. The reader was therefore left to infer that no truth made out by intellectual labor is to be held valid of anything real that may have existed before that labor was ended. This inference is

¹ *Journal*, Vol. III, p. 254; italics mine. The quotations from Professor Dewey in what follows are all from his article on "Reality as Experience" in Volume III of the *Journal*, pp. 253-257, except where otherwise designated; and as the article is short and the passages and phrases quoted are easily found in it, I shall not page the references.

now for the first time explicitly confirmed by Professor Dewey in the article just referred to. This article has therefore the importance of a definitive statement of his attitude towards facts dealt with in some fundamental sciences. We have here a touchstone of the scientific character of his experiential philosophy. If his philosophy cannot stand at this point the test of comparison with the results of science, then that philosophy is anti-scientific; and the pure experientialist of Professor Dewey's type stands at the parting of the ways. Either he must take leave of science, or he must surrender his peculiar views and the logic which issues in these views. We need not here decide which course anyone would reasonably choose with these alternatives before him. We must first see whether these are exclusive and exhaustive alternatives. Professor Dewey himself evidently appreciates the crisis which his system here faces. The article in question is a resolute attempt to avert the crisis. Let us see whether it succeeds.

As we have already said, Professor Dewey admits the existence of something prior to experience, — something "non-contemporaneously experienced." This something, however, though it is called an "earlier reality," is not to be set over against the "later experience" of it, as one complete reality against another. "It is only the earlier portion, historically speaking, of what later is experience. So viewed, the question of reality *versus* experience turns out to be only the question of an earlier version of reality against a later version, — or, if the term 'version' be objected to, then, of an earlier rendering or expression or state of reality compared with its own later condition. We can not, however, say an earlier reality *versus* a later reality, because this denies the salient point of *transition towards*. Continual-transformation-in-the-direction-of-this is the fact which excludes on the basis of science (to which we have agreed to appeal) any chopping off of the non-contemporaneously experienced earlier reality from later experience. So viewed, the question for philosophy reduces itself to this: What is the better index, for philosophy, of reality: its earlier or its later form?"

In the earlier form "something essential to reality is still

omitted," and thus the 'earlier reality' was not really and entirely real.

" Wanting is — what?
 Summer redundant,
 Blueness abundant,
 — Where is the blot?

Beamy the world, yet a blank all the same,
 — Framework which waits for a picture to frame :
 What of the leafage, what of the flower?
 Roses embowering with naught they embower!
 Come then, complete incompleteness, O comer,
 Pant through the blueness, perfect the summer!
 Breathe but one breath
 Rose-beauty above,
 And all that was death
 Grows life, grows love,
 'Grows love!'

The 'comer' fulfils the promise and potency of the past, immersing the knowledge-object, which before was only reality in the making, "in an inclusive, vital, direct experience," and lo! reality is made, perfect and entire, wanting nothing. But it does not remain made for good and all. It has a way of slipping back into its inchoate state every time it ceases to be experienced, every time it is withdrawn from the bath. Reality is invulnerable to philosophical attack only so long as the waters of experience flow over it. But this gives no serious trouble, for it can be dipped again and again. The charm, though momentarily lost, can be regained. Reality is always at hand, a portable bath for any one who needs it in his pragmatic business: a need is possible only in experience, and experience is itself the magic water. "Every experience thus holds in suspense within itself knowledge with its entire object-world, however big or little. And the experience here referred to is *any* experience in which cognition enters. It is not some ideal, or absolute, or exhaustive experience." Every pre-experiential creature is by experience delivered from the bondage of incompleteness into glorious reality. The vision beatific culminates and reifies the 'qualitative-transformation-towards.'

We have in this theory a daring de-realization of the pre-experiential past. What is the justification for it? We are told that the justification is found in the fact that all the objects of

which astronomy and geology treat are *objects for the scientific experience*. When the scientist predicates reality of them apart from his experience of them, he ignores the fact that he is necessary to make this predication and therefore to *realize* them. This realization of them in his scientific judgment abates the perfection of the reality they had before they were ever experienced. For to realize means to make real, and when the scientist realizes the existence of long bygone things, he makes that existence real. If he *makes* that existence real, it could not have *been* real before; for what already is, why doth a man yet make? Recognize that the transformation of pre-experiential qualities towards experience "is realized in present experience, and the contradiction vanishes. Since the qualitative transformation was towards experience, where else *should* its nature be realized save in experience — and in the very experience in which *O*, the knowledge object, is present? . . . What is omitted from reality in the *O* is always restored in the experience in which *O* is present. The *O* is thus really taken as what it is — a condition of reality as experience."

In other words, the world of knowledge is from start to finish a performance going on before the eyes of virginal experience. Even though she cannot bar from the boards certain really objective facts, they are not objectionable, for they appear completely clad in robes she has provided. What they might have been before they were thus clothed upon she can never see. Should, perchance, visions of the dressing-room flit before her maiden fancy, she merely thinks of the occupants as undergoing continual-transformation-in-the-direction-of investiture. They could never be *real* for her, because they become real only when they appear garbed before the foot-lights.

Everything that experience touches is thereby made clean for the grace of her favor and made whole in the entirety of her embrace. Without such cleansing and such integration nothing can enter into her presence. The object as it existed before it was experienced, was not reality, but only a condition of reality, and the condition is not sufficient to produce reality. Only when the condition is supplemented by an experience which realizes the object does the object become real.

It is a great pity that, before writing of the realizing power of experience, Professor Dewey had not made as exhaustive a study in some dictionary of the word 'realize' as he has made of the words 'idea' and 'consciousness.' For any even fairly complete dictionary would have shown him that 'realize' means at least two things: (1) 'make real,' and (2) 'recognize or think of as real.' To argue that, because the nature of the object is 'realized' only in experience, it could not have been completely real before the experience, looks suspiciously like a play upon words. A pun can hardly be a "scientific fact on which are wrecked all strictly objectivistic realisms."

The result will not be substantially different if we regard the emphasis which Professor Dewey lays on the word 'realize' in his article as merely the employment of the convenient word to enforce a view obtained otherwise, and not as an attempt to rear a pretentious philosophic structure on such a logical study of language. The foundation of his system is laid on the fact that, before any object can be posited as real, there must be some (cognitive?) experience in which the object is thus posited. Experience as the presupposition of scientific objects, it is asserted, is ignored in the physical sciences, which deal with objects and abstract from the experience for which such objects exist as real. "The reason the scientist can suppress in his *statement* of the reality factors which the reality possesses," more specifically the factor of being experienced, "is just because (1) he is not interested in the total reality, but in such phases of it as serve as trustworthy indications of imports and projects, and because (2) the elements suppressed are not totally suppressed, but are right there in his *experience*: in its extra-scientific features. In other words, the *scientist* can ignore some part of the *man's* experience just because that part is so irremediably there in experience."

There is no question that we have here a very important truth which realism may ignore to its ultimate philosophic undoing. But we have the truth stated in a way that leads to confusion, and it is on this confusion that Professor Dewey builds that part of his philosophy which is anti-realistic. By avoiding the confusion and yet by recognizing the truth which Professor Dewey

expresses,—only to impress it wrongfully into the service of a false experientialism,—the realist can round off his realism with an idealism. He would thus get an ontological realism and an epistemological idealism. Of course, this result would be an abomination to any one who abhors the very word epistemology, and who has brought himself to believe that “knowing the external world through ideas which are merely within us is” “an inherent self-contradiction.”¹

The confusion to which I refer is that between the intellectual cognition of a fact, as a present experience, and a fact cognized as a reality temporally prior to the experience which cognizes it. The former is ‘pure experience,’ in Professor Dewey’s meaning of the term. All the mediations by which such a cognition has been attained have also been purely experienced as processes of tension and inner distraction, terminating in purely experienced redintegration of contents : in pure experience of rest after toil, port after stormy seas. Nothing can enter into the kingdom of knowledge and acquire citizenship in the scientific domain, with all the rights and privileges appertaining thereunto, without having taken out naturalization papers in the court of experience. Without this preliminary process even a star cannot be domiciled as a star and allowed to stake out a claim to a quarter-section in the stellar universe—*of science!*

This necessity that something should first be experienced in some way and then be known in a scientific way, before that thing can be treated by science, does not seem to be overlooked by scientists to-day. Most of these worthy gentlemen would probably be amused by the suggestion that they could ignore the knowing part of their experience and pay attention only to the known part, because forsooth the knowing part is irremediably there in experience. What are microscopes and telescopes and spectroscopes, from the epistemological point of view, but eloquent witnesses to the scrupulous exaction the scientist makes that every object should first be experienced before it be inventoried in the scientific catalogue? What are the method of least squares and the allowance for personal equations but the recog-

¹ *Studies in Logical Theory*, p. 83.

dition that, whatever may be the final scientific statement, that statement must take as its point of departure the experience of the scientist? The scientific statement is not shot out of a pistol: it is the fruition of a developmental process whose germination and whose floescence occur in the atmosphere of 'pure experience.' Experience is the very life, the self-conscious life, of science, and of such life the scientist agonisingly exclaims:

" 'Tis life, whereof our nerves are scant,
Oh life, not death, for which we pant;
More life, and fuller, that I want."

And then he is told by a philosopher, who desires a *rapprochement* between his philosophy and science, that "in a very real sense, the present experience of the veriest unenlightened ditch-digger does philosophic justice to the earlier reality in a way which the scientific statement does not and cannot: cannot, that is, as formulated knowledge"! I presume that the ditch-digger is dignified with laudatory mention in disparagement of the scientist because the ditch *becomes real* in the digging experience, while the fossil does not. If the geologist could only dig his fossils in while he is digging them out, then his pure digging experience would do philosophic justice to the reality. Where else should the nature of fossils be realized save in experience, — and in the very experience in which fossils as knowledge-objects are present? This kind of pure experience, however, would probably be branded by professional geologists as impure science.

It is well enough to lay emphasis on the experience of the scientist as indispensable to the scientific validity of his results. When we do, we get what I have ventured to call an epistemological idealism, or the doctrine that there would be no *scientific* reality were there no scientists, with scientific ideas and ideational experiences. If there were a universe of real things which did not include somewhere or sometime within it cognitive experience of at least some part of it, and which were so completely self-contained that no thinker of another universe could even guess its existence, the reality of that universe could not be *scientific* reality, whatever else in its meaninglessness it might be. Even the idlest dream of such a universe would require a dream ex-

perience for which it could have a quasi-reality. The reality we know and the reality we predicate with any intelligibility or significance is reality for us as predicators. Even when we think of this kind of reality as being possible in another universe unradiated by a single gleam of intelligence or sense-experience, we still *are thinking* of it; we cannot think ourselves and everything else out of *such* a universe without being in *this* universe to do this thinking away. No thinker, no thought-object; no experience somewhere and somewhen, no meaningful reality anywhere and anytime. This is the truth which is contained in Professor Dewey's contention.

But it is one thing to say, No experience; no reality, and it is another thing to say, No *contemporaneous* experience, no reality. It is this contemporaneousness that Professor Dewey surreptitiously introduces into the statement of the truth, thereby converting it into, — well, let us say a huge assumption. "Thus, the knowledge-object *always* carries along, *contemporaneously with itself*, an other, something to which it is relevant and accountable, and whose union with it affords the condition of its testing, its correction and verification. This union is intimate and complete. The distinction in experience between the knowledge portion, as such, and its own experienced context, as non-cognitional, is a reflective, analytic distinction — itself real in *its* experienced content and function."¹

By thus synchronizing the experience and the reality, the object of knowledge, which for the scientific geologist may be a real object belonging to the remote past, becomes so tied down to the present by the fact that it is cognitively experienced, that it loses the *character of past reality which it claims to have for scientific knowledge*. Knowledge of the past becomes a self-contradictory thing. To use expressions of Bosanquet's, — the 'time of judgment' and the 'time in judgment' get so badly mixed that they must be reduced to the same time, the time of judging. Lotze's view that the ways of thought and the ways of things are different is ridiculed out of court to make way for the sole alternative "view which regards reality as developing in

¹ All the italics are mine except the last.

and through judgment.”¹ The development of our ideas of reality and the development of reality itself are economically merged into one development, the development of objects in our cognitive experience of them.

Let us now follow the results of this merger. I think that we shall see that the stock of the holding company rises at the expense of the manipulated stock, which falls to zero. In geology the scientist deals with facts cognized as prior to his cognizing experience of them. Professor Dewey tries to acknowledge this; he goes as far as his theory will allow him. But his theory will not allow him to regard the geological fact as complete reality. It is simply reality-in-the-process-of-transformation-towards-experience. This process of transformation towards reality is a fact “as objectively real as anything else,” and is “realized in present experience.” Hence “what is omitted from reality” in the scientist’s statement of the nature of the object “is always restored in the experience in which” that fact “is present.”

In dealing with reality-in-the-process-of-transformation-towards-experience, if, dropping out the first hyphen, you try the experiment of the “chopping off of the non-contemporaneously experienced earlier reality from later experience,” you do violence to “the pragmatic variety of empiricism with its interpretation of the place of reflective knowledge, or thought, in control of experience,” and you must remember that this pragmatic variety of empiricism “seems to have the call” here. If you put down your axe and let the hyphen be, that hyphen will wreck every fortune that is tied up in “strictly objectivistic realisms.”

The real trouble with this pragmatic variety of empiricism is that it is so much engaged in the business of the interpretation of the place of *reflective knowledge, or thought*, in the control of experience, that it ignores the right of the *object* to the place it claims, — a place in time prior to the date of the experience. It claims that place, not as an incomplete reality, but as a genuine ready-made reality, waiting all these ages to be recognized as such. The recognition does not, in the knowing experience, pretend to *give* reality to what it recognizes as real, any more

¹ Dr. Helen Bradford Thompson, in *Studies in Logical Theory*, p. 126.

than the registration of a deed of conveyance with the registrar of deeds makes the deed real. The deed is already real, or no registrar registering to doomsday can register reality into it.

The pragmatist of Professor Dewey's type of empiricism writes as if a change in geological science involved a change in the actual past history of geological objects. But I am afraid that he would find it hard to make terms with the scientific geologist on the proposition that the discovery of geological development made that development real. The geologist would be unkind enough to say that discovery is not invention. The map of the past may be changed after the discovery, but that does not change the real past. If the map becomes more accurate in the effort of reflective knowledge to control present experience, that is because there was a real past, now fixed in its eternal state, which one map can more truthfully represent than another. It would be a queer sort of a past that should complaisantly adjust itself to conform to every change that the cartographer felt obliged to make in the effort to reintegrate his pure experience of cartographical distractions.

Or let us take the momentous day when Copernicus first hit upon his famous reintegration of astronomical experience after Ptolemaic tensions. Was the real earth at that time uprooted out of its place in the center of the universe and sent spinning in an elliptical orbit about the sun? Mighty as was the thought of Copernicus, it would be hard to suppose that it could suddenly impart a motion of many miles per second to the huge masses of the earth and the other planets, and cap the climax by performing the miracle of Joshua. The scientist is more apt to suppose that the real solar system at that moment kept on in the equable course it had been pursuing for countless milleniums, and that it did not feel a single tremor throughout its whole frame save in the little nervous system of Copernicus himself.

In all these pre-Copernican æons, where was that "other" which the "knowledge object" of Copernicus had always carried along "contemporaneously with itself"? Had Copernicus's experience existed continuously through all pre-Copernican times? Or did the "knowledge object" of Copernicus not exist except

contemporaneously with the historical Copernicus? I must confess that the attempt to think out this puzzle in terms of the "pragmatic variety of empiricism with its interpretation of the place of reflective knowledge, or thought, in control of experience" gives me a pure experience of tension and distraction; "of particular elements which are in strife." The facts I seem to get "are crude, raw, unorganized, brute. They lack relationship, that is, assured place in the universe: they are deficient as to continuity."¹ And this, I am told, is an index of pragmatic untruth.

But we are assured that we can escape all this difficulty by recognizing the objects prior to Copernicus as incompletely real. The 'real' is a sop to science, the 'incompletely' is the acknowledgment of the truth of the pragmatic variety of empiricism. This seems to be an easy way out of the difficulty, but let us look ahead a little before committing ourselves to this reconciliation of science and philosophy. "The non-contemporaneously experienced earlier reality" is not complete reality, because it is undergoing "change-in-the-direction-of, which is, to say the least, as objectively real as anything else." Does not this prove too much? The function of the solar system as an object of knowledge was not exhausted in the experience of Copernicus. It continues in the experience of every educated man to-day. If it be said that what is continuously undergoing transformation-in-the-direction-of is not complete, the solar system is incomplete yet, because it seems to be undergoing just such a hyphenated transformation every day, and it is hard to fix the term of that transformation before Byron's Last Man shall have found surcease for his unshared sorrows in the grave of all experience. And yet even then the solar system cannot be real, for the experience which is necessary to realize it is gone. We thus get the interesting result that nothing can be completely real till nothing is left to be possibly real. No wonder that the philosopher whose view of complete reality involves this paradox should have found that the paradox wrecks "all strictly objectivistic realisms." But why does he not see that every other ism shares the same fate?

¹ *Studies in Logical Theory*, p. 52.

But it may be argued that, although pure experientialism may be a floating mine which wrecks the whole philosophic navy in exploding itself, still any other philosophic doctrine negatives the value and the reality of thought. The reply is: Not in the least, unless by reality is meant the whole universe, past, present, and to come; and by value is meant inclusiveness of such total reality. Thought may be real without being *omnitudo realitatis*. It may be an integral part of the universe, with its definite place in time and its definite work to do. What its place is, is scientifically determined, as everything is properly determined in science, by appeal to the witness of harmonized and redintegrated experience. Experience assigns to itself a place in the world of reality, as posterior to much of the reality experienced in scientific ideation. Experience also recognizes its own function in the world, just as it recognizes the function of other parts of the whole of reality. When it recognizes itself as necessary for the recognition of reality, it recognizes in itself a unique value; but if it tries to emancipate itself from the duties of its sphere and to usurp the function of another sphere, it makes itself a laughing-stock, much as the would-be male females of our time do. Even though experience is bone of the bones and flesh of the flesh of reality, still she ought to realize that there were some real ribs whose prior existence was necessary to her making. She may give names to the animals brought before her, but if she arrogates to herself the power of giving reality to the very conditions that brought her into being, she is trying to become greater than Spinoza's God, who is merely *causa sui*. She wants to become *causa causæ sui*. Experience may look before and after, but she may not translocate. She may embrace the real, but not reduce it to a dependency of herself.

If it be asked how the real, which may exist prior to experience, can come to be an object of subsequent experience of it, unless the obsolete doctrine of representative knowledge be true, I should answer that perhaps there is more truth in that doctrine than many would be disposed to acknowledge to-day. Let us look at experience as it actually is, and see what are the facts. At present I am experiencing my typewriter, *i. e.*, there is an

awareness of it along with other things, among which is a group of contents called by Professor James 'the empirical Me.' The awareness comprehends them all, including many relations subsisting between them severally and collectively. The awareness is not *in* any one of them but *of* them together. These various things do not exist for the awareness as borrowing their reality from it. They exist for it as just being there, in various relations to each other. The awareness, as embracing the color and the shape of the typewriter, is called *seeing* it; as embracing the hardness of the keys is called *touching* them. What is thus seen and touched stands in bold relief in space before my body. Now let me close my eyes and raise my fingers. There is a change in the field of objects. Instead of the thing in clear outlines, there is now something of which I am aware as similar to what was before my body a while ago, but also as somehow different. What I formerly experienced is not now present along with this new something, and by its presence furnishing one of the 'relata' for the relation of similarity. On the contrary, I am aware only of this new something *as similar* and yet *as different*. The thing it resembles and does not entirely resemble is absent from my awareness as a definite content of my present experience, but I know that it was experienced only a moment ago. Now I move my fingers, still keeping my eyes closed; I again become aware of the kind of hardness I experienced a moment ago when I touched the keys before. The present hardness is much more similar to that previous hardness than the present color I see with closed lids is to the color viewed with open eyes. The keys I still see are ghostly white and black; the fingers I see are ghostly fingers; but the hardness I feel is not ghostly. Now this object of my vision, so 'sicklied o'er with the pale cast of thought,' is called a visual image, corresponding to and resembling the *thing* I saw once and can again see if only I open my eyes. The image is, moreover, not merely something in the field of vision; it is there as standing for something else,—for what is called the real typewriter, which I can see and do touch. I know the reality through this image. If you ask me what is the color of the typewriter frame, I answer, 'Black.' I see the

black of my image and it *means* the black of the real typewriter. In this case, unquestionably, I know the reality through the image. I can do so because I am aware of the resemblance the image has to the real typewriter, which I saw a moment ago standing in its naked reality before my eyes. If I were to doubt the resemblance, I should only have to open my eyes, and lo! the real thing would stand revealed as having just the color I attributed to it, because I saw that color in the image. That is to say, when my eyes are closed I have a representative visual image of the reality I have previously seen face to face.

It is to be noted that such representative knowledge differs greatly from the representative knowledge of the school of Hamilton. Hamilton thought that the thing we saw with open eyes was not the real thing; it was merely a replica of the real thing. Hence he believed that all our knowledge is representative. According to the account given above, not all knowledge is representative. The knowledge of the real thing's visual characters which we get when our eyes are open is direct and immediate: it is intuitive. It is only when my eyes are closed that I have to depend on representative knowledge. Now as I can have both intuitive and representative knowledge of reality, and as I can be aware of the similarity or dissimilarity between them, I can, when I have intuitive knowledge, test the correctness of the representative knowledge I previously had. The arguments, therefore, which have been directed against the theory of the representative character of *all* knowledge lose their force when turned against the asserted fact of the representative character of a large part of our knowledge. If we call this representative part of our knowledge "knowing the external world through ideas which are merely within us," it is hard to see the justification which Professor Dewey has for saying that such knowing is "an inherent self-contradiction."

The question, however, may properly be asked whether the image is "merely within us." Answering from experience, I should say that it is. I have never found any reason for supposing that the image can exist apart from the awareness of it, and I presume that by "merely existing within us" Professor Dewey

means "existing only when there is an awareness of what exists." On the other hand, I think that I have good reason for believing that the real thing I see continues to exist when I no longer see it, when I do not even think of it, and when so far as I know no one experiences it in any way.

- ✓ The trouble with Hamilton's school is that, having convinced themselves that some of our knowledge is representative, they allowed themselves to infer that all knowledge is representative.
- ✓ The trouble with philosophers of Professor Dewey's way of thinking is that, having convinced themselves that some of our knowledge is not representative, and that, if all our knowledge were representative, we should never have any criterion for truth, they jump to the conclusion that none of our knowledge is representative. If people would only give up trying to reduce all knowledge to a dull uniformity of character and would describe facts as they are, we should have neither the insoluble problem of proving copies authentic when we can never get at the originals, nor the anti-scientific view that things are real only in experience, and that real things change when our purely experienced images of them change, and that the changes of these images are the changes of the things.

The theory above outlined as to the partially intuitive and partially representative character of our knowledge makes possible a meaning of *transsubjective reference*, which accords with the facts and does not involve contradictions. By transsubjective reference, according to this theory, is meant reference to what exists beyond the direct object of awareness when that object is merely subjective.

When I close my eyes and remove my fingers from the keys of my typewriter, I am aware of images (which are called merely subjective, because they are supposed to have no existence except as they appear in consciousness); but I am also aware of a 'reference' of these images to what is not now directly present in consciousness, viz., my typewriter. This transsubjective reference finds its simplest illustration in memory. The thing remembered and the image present in consciousness when we remember, are of course not the same thing. We cannot literally recall our

boyhood days, but we do have images which, however, are not mere images and nothing more : we have images which reproduce with some verisimilitude those bygone days. Not only is there reproduction, there is also recognition, of the past experience. The images come to us in the character of representatives, present ambassadors bearing credentials from a court which has long been levelled in the dust of time. But we honor the credentials, and treat the embassy with all the consideration due to the power they represent. This treatment of the present image as representative of a past reality is a transsubjective reference. The image is a 'relatum' in relation to a non-existent 'correlatum.' We might call the relation, so far as the immediate contents of experience are concerned, a one-term relation ; the other term is not present in the 'pure experience' of the moment. But its absence does not mar the character of the present term as a related term, recognized as such. There is pure experience of reference to ; and if the phrase is to be completed, the complement lies beyond the immediate experience. An image thus referred to what is not present in consciousness to complete the reference, is what I should call an 'idea.' All our reminiscent knowledge is by means of ideas.

Now if we may know the past, of which we are no longer immediately aware, by means of ideas, why may we not know present objects, of which we are not immediately aware, in the same way ? At present, for instance, I have an image of my bed in another room. The image is not my bed, and the bed is not an object of my immediate pure experience, while I am writing. Nevertheless the image refers to the real bed, now existing, in the same way in which the memory refers to something not itself, something not now existing but having existed in the past. The fact that in the one case the object referred to is past and in the other case exists simultaneously with the image, does not make any difference in the transsubjective character of the reference.

If it be asked how I know that the bed is up in my room, a distinct reality from my image of it as my body sits here at my writing table, I should say that Hume has fairly stated the facts

on which my belief in the distinction rests, although of course Hume did not think that the belief was logically valid; the belief was for him a mere fiction of the imagination. But for him, when he was consistent, the memory image had no transsubjective reference either. Whether we call the motive which prompts to the belief an instinct, or reason, or common sense, the fact is that the belief is in normal experience present; and no argument can be given for its untenableness which does not at the same time assume its tenableness and its correctness.

Now, just as I have memory images referred to realities previously experienced, and just as I have images referring to present realities not immediately experienced, so I can have images referring to past or future realities which have never been experienced. The fall of Constantinople, the martyrdom of Bruno, the next Fourth of July, and my death-bed experience are all present to me by representative images. I know them more or less accurately by means of ideas. All my knowledge of the past, all my forecast of the future, and all my knowledge of facts now existing save the few I have before me in the way of sense-perception 'inner' and 'outer,' are representative. Bosanquet, therefore, does not seem to be far from the truth when he says that we come into contact with reality in sense-perception. Everywhere else, we have images referring to reality, ideas of reality, but not reality itself.

If I read Professor James aright, this view is not far from his, yet it differs from his in one important respect. He seems to make the truth of experience where substitutional images are employed, to consist in the fact that these images do actually continue uninterruptedly into the experience where the reality becomes an object of sense-perception. I should rather say that one important *test* of my imaging experience is found in subsequent or prior sense-perceptions. The *truth* of the images, however, consists in the correspondence of the images with a transsubjective reality which now exists, or with a transsubjective reality which has existed in the past or will exist in the future, whether ever actually an object of immediate experience or not. The sense-perception confirms the truth, but is not the truth.

Truth is the agreement between ideas and reality. Such agreement does not necessitate exact correspondence, point for point, between images and reality. But for truth there must be correspondence in regard to the feature which is transsubjectively referred.

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THE MATERIAL OF THOUGHT.

THE ancient distinction between form and matter in the process of thought constitutes a problem which is perennially laid to rest and which is yet perennially revived by writers who have not taken to heart the lesson which the history of philosophy ought by this time to have made unmistakably clear. We all claim to understand the difficulties of the problem as it appears in Kant. A pure *a priori* form supplied by the mind and impressed by it upon our knowledge, an entirely unformed, undefined, sensuous raw material mysteriously 'given' by the real world to the mind, and an experience which is somehow made by the combination of these two elements, are conceptions which we all claim to have abandoned. Nor is the fallacy of such a view difficult to grasp and expose, when it is thus baldly stated in its extreme form. What we do not always see, however, is that the same antithesis of form and matter, with all its attendant fallacies, still lurks in certain conceptions that are current enough in present logical discussion. We are still prone to take from common sense certain assumptions about the nature of knowledge without observing that these assumptions, if pushed to their logical conclusion, result in precisely this exploded antithesis. Of course, no one wishes to draw an indictment against common sense. Its distinctions (between fact and theory, thinking and object of thinking, for example) are useful enough for certain practical purposes; but the logician must beware of adopting these practical distinctions into his science without due criticism. It is the distinction between fact and theory, or between our actual experience and our thought about that experience, as it appears only too frequently in current logical works, that I mean to discuss.

What is it that we think about? From the point of view of common sense, the answer is obvious. Clearly we think about objects, all the multiform real things that we meet with everywhere in our experience. We are at all times confronted with a vast

number of real things which demand our attention and force us to think about them. We need them in our most ordinary activities; they obtrude their presence upon us at every turn, and without some knowledge of their natures and modes of behavior life would be continually endangered, if it were not entirely impossible. By this theory of common sense, then, the world in which we find ourselves is assumed to be a vast congeries of real objects, classified in certain rough and ready ways, perhaps obeying certain natural laws, but always to a great extent unorganized.

This view we have called the theory of common sense, because, whether or not it is actually held in this form by the 'plain man,' it clearly owes its origin to an uncritical attempt to deal with the problem of knowledge. Nevertheless, essentially the same theory has been elaborated in more than one logical treatise. As an example, I shall use in this paper the theory sketched in one of the most elaborate and most widely discussed German works on scientific methodology of the last decade, Heinrich Rickert's *Grenzen der naturwissenschaftlichen Begriffsbildung*.¹ According to the view of this author, the real world is a manifold of unique, individual objects. It is infinite in its extension, for it comprises an infinity of real individuals. Moreover, any part of it is 'intensively infinite,' for there is no limit to the number of divisions that may be made within any single individual; it may be regarded as possessing an infinity of different aspects. With this real manifold our perceptual experience brings us into immediate contact. It is given to us as a multiplicity of perceptual objects in space and time.

The problem of scientific conception lies in the overcoming of this infinite manifold of real beings. Into this chaos it is the function of thought to introduce order. It must bring the manifold within the grasp of our finite powers, must make it comprehensible (*übersehbar*) for practical and theoretical purposes. The process by which this is accomplished is the formation of the universally valid laws of science. The characteristics of the con-

¹ Especially Ch. I. I say the view which Rickert 'sketches,' because he is primarily concerned not with scientific method in general but with the method of history. His view of generalizing thought, however, is developed at considerable length and is perfectly definite and explicit.

cept, — universality, definiteness, and validity, — are all instruments by which the manifold of individual real objects is made manageable, and this instrumentality constitutes their entire value.¹ The laws are short-hand formulæ which resume a great mass of real objects; they are not themselves real, but are mental constructions which serve the scientific purpose of overcoming the manifold. The method by which science proceeds is therefore that of abstraction. Its end can be attained only by reducing the number of qualities with which it has to deal within determinate limits, and it is successful precisely in proportion as the number grows smaller. Starting with the perceptual manifold, which has an infinity of qualities both extensively and intensively, it must reduce the number of perceptual things with which it deals by resolving them into conceptual relations. Its goal is the complete elimination of perception by the ultimate reduction of the thing to a purely conceptual and ideally defined 'Dingbe-griff.'² The progress of scientific thought, therefore, from Rickert's point of view, is always in the direction of greater and greater abstraction; the more abstract it becomes, the more successful it is. The farther it recedes from the world of concrete reality, the more it realizes the ideal of conceptual thinking.

The question we would raise is whether such an account of the procedure of science is adequate to the nature of our thinking. In the first place, there is a question of fact to be considered. Does our actual experience present us with such an endless multiplicity of real objects as this theory assumes, and does such a manifold set the problem which our thinking tries to solve? Is a vast multitude of individual, concrete facts really prior to any explanation of the facts? If we examine those forms of experience in which conceptual abstraction is at a minimum, I do not believe that even there the position will be found tenable. Is it true that a child first becomes aware of a multitude of unique real objects and then reduces them to comprehensibility by making abstractions? Surely a child has all sorts of explanations for the objects about him quite as soon as he has any clear

¹ Ch. I, §§ 1, 2, 3. See summary also, p. 123.

² Ch. I, § 4.

knowledge of the objects themselves. His explanations are not those of his grown-up friends, but they are certainly serious attempts on his part to reach solutions which shall be logically satisfactory to him. Again, if we take the naïve adult experience, from which science in the first instance must start, we find no lack of explanation. Common sense has its theories as well as its facts, and one is not more natural to it than the other. The explanations may be absurd from the point of view of science, but it can scarcely be maintained that they are not indigenous to naïve experience itself.¹ Of course, I do not mean to maintain that the naïve thinker is unable to distinguish an indefinite number of objects in space if he has any occasion to do so. But it is surely not true that such a manifold presents itself to the plain man as something incomprehensible which must be overcome by a conceptual scheme. Like the scientific thinker, the plain man finds his problems in the inadequacies of his own crude theories.

If we take into account primitive attempts at scientific explanation, we shall find precisely the same condition to exist. Would anyone seriously maintain that the motive of Greek philosophy was to overcome a manifold of isolated facts? True, the theories of the Pre-Socratic Philosophy are simple and naïve, but the facts which it endeavors to explain are correspondingly few. Is it not a glaring case of the psychologist's fallacy to assume that the same diversity of problems, — and this would surely be the case, if mere number of objects constituted the problem of science, — presented itself to these early thinkers as to us, who have been taught what facts to look for by more than twenty centuries of thinking? For the Greek astronomers the different orbits of the sun, the moon, and the planets had been discovered and were explained by assuming a series of geocentric spheres in which these heavenly bodies were supposed to be fixed. The motions of all the other bodies were explained merely by supposing them to revolve with the heaven of fixed stars. Are we to suppose, then, that the varying motions of all these other bodies were facts for them in anything like the sense that they are for a modern astronomer;

¹ It is not clear that Rickert would deny this, since he assumes that conceptualization begins with a more or less spontaneous, 'psychological' development of general word-meanings. Cf. Ch. I, § 1, pp. 32 ff., especially, pp. 39 f.

equipped with the elaborate astronomical theories of the present? We certainly know that this was not the case; to the Greeks it must actually have appeared to be a fact that the stars moved as they supposed them to move. In the progress of science, therefore, the discovery of facts and the formation of theories advance *pari passu*. Science at its inception is not face to face with a manifold of individuals which it must simplify; it has a few facts and a crude theory. Its progress means the extension and transformation of its theory to explain new facts, and the reinterpretation of all the facts in the light of the theory.

We have not reached the true merits of the logical problem, however, when we have shown that facts and theories are synchronous in our experience. The fact that both are present, while it establishes the presumption that there is a close logical relation between them, does not explain the nature of that relation or define the meaning of each for our experience. Into this problem we must look somewhat more closely.

The logical error involved in the position I have been combating lies in the assumption that there are two generically different kinds of knowledge and experience, — the categorical knowledge of particular individuals and the hypothetical knowledge of universal explanation, — an assumption which is neither more nor less than the old distinction between form and matter.¹ For unique particulars to which thought can never do justice and scientific universals which are constructed by mere abstraction can never unite to form an organic experience. It must necessarily remain a mystery how thought can get a foothold among such a chaos of individuals, and also how it can accomplish any fruitful result if it is admitted to be able to deal with the particulars. A congeries of absolutely unique individuals, — provided uniqueness means mere isolation and not a logical relation actu-

¹ Cf. also W. Windelband's "Geschichte und Naturwissenschaft," in the number of the Strassburg publications entitled *Das Stiftungsfest der Kaiser-Wilhelms-Universität Strassburg am 1. Mai, 1894*. The same assumption is everywhere present in Rickert's book. Cf. in particular the discussion of "Dingbegriffe und Relationsbegriffe," Ch. I, § 4, pp. 75 ff. Note that Rickert admits in the end that his 'ultimate thing-concept' is really a concept of relations, except that by a logical fiction we treat it *as if* it were the concept of a thing.

ally established by thought, — is nothing short of a multiplicity of absolutes, which, by definition, cannot be reduced to order, and which therefore offers no problem to thought. On the other hand, if thinking involves progressive abstraction, and hence the omission of more and more characteristics of the real individuals with which thought deals, we are apparently committed to the hopeless doctrine that the more we think the farther we go away from the real. Just why thinking ends in theoretical or practical control is therefore not clear.

Let us take up the latter point first. If thinking consists in leaving out of account certain qualities of real objects in order to bring a larger range of individuals under our concept, is it not clear that we are necessarily approaching a point where content must vanish altogether? If anything whatever lies at the end of such a process, it must be the pure form of experience without any empirical content at all. Accordingly, the goal of thinking is apparently a sort of euthanasia; thought accomplishes its purpose of attaining a universal generalization at the expense of making a statement which must be absolutely trivial. This applies to every real object in the world, because it is so meaningless that there is no reason why it should be applied to one more than another. Clearly this is a travesty on the nature of generalizing thought. A true generalization is not merely the expression of a quality common to a number of particular objects, but is an interpretation of the particulars which it subsumes. It relates the particular facts under it, and exhibits each in the light of the others. But this kind of generalization involves much more than mere abstraction; it is essentially a process of bringing to light implicit logical relations and of attaining rational organization within experience.

To return to the first point, the attempt to start scientific thinking from a mere manifold of unique individuals sets for thought a problem which is at once unreal and impossible. A mere manifold of objects or facts, *qua* unrelated manifold, does not constitute a problem which we can solve by thinking. Are there not always about us an infinity of objects, if we choose to take note of them, about which we never feel the least impulse

to think, so long as they remain a mere manifold of objects? Millions of pebbles lie about the streets that we walk over every day, thousands of trees dot the landscapes we see, yet in neither of these cases is there any problem involved in the mere multitude of individual objects. Moreover, this multiplicity is always a relative matter. What is it that constitutes the unit of enumeration? If one were asked to count all the objects in one's field of vision, the problem would be obviously absurd unless one were given some clue by which to determine what was to be taken as a unit. The whole experience may be a single unit, if there is no occasion for its differentiation, and there is no part of the experience so minute or so strictly unified that, if need be, other units may not be counted within it. The very terms simplicity and multiplicity imply a principle of unity by which some parts of the experience under consideration are constituted units; counting is always the distinguishing of parts within a whole.¹

It is therefore sufficiently clear that mere multiplicity of objects offers no problem with which thought can deal. Where, then, is this problem to be found? It may no doubt be answered that it is a need which sets the problem for thought. Mere manifoldness, it will be said, is not a problem, because we do not want anything from the manifold. If we had a use for all the stones and trees that we see, we should no doubt theorize about them, discover their numbers and sizes, their identities and differences, and all their qualities. The problem of thought, according to this view, is set by a practical situation, a tension within our experience, a need which must be satisfied. But this position will bear closer inspection no better than the other. No one would deny, of course, that we sometimes think in order to satisfy our needs; the want of a certain article may turn our attention to the problem of getting it, and, in order to get it, knowledge may be required which we do not yet possess. The need is the stimulus which urges us on to think. But this in no way involves the further assumption that the problem which thought solves is primarily a practical one. The thinking as such does not attain the

¹ Rickert himself points out the relative nature of multiplicity, but fails to see its bearing on his fundamental assumption. *Op. cit.*, p. 37.

desired end, but merely shows the course of further activity which must be pursued if the desire is to be realized. The mere need as such furnishes no problem of which thought can give a solution.

Let us examine the procedure of thought when we face such a practical difficulty. The cognitive elements involved in such an experience appear to be: (1) the knowledge of an actually existent situation which thwarts our desires, and (2) an end to be realized or an ideal situation consonant with our desires. The two situations, the actual and the ideal, are incongruous with each other, and the practical problem involved is the manipulation of the actual, in order to bring about the ideal. The cognitive problem is to discover the manner in which this may be accomplished,—in other words, to do away with the logical incongruity which prevents the ideal situation from coming into being. The actual situation has qualities which negate the ideal. Since it is actual, it is assumed to be a logically consistent situation; that is, a valid reason can be given in explanation of all its qualities to show why it must be as it is and not otherwise. Knowledge of the actual consists in an understanding of these reasons, in a conception of the logical relations which make the situation a logical whole. But the introduction into this experience of an ideal situation not yet realized leads to logical inconsistency. The problem of knowledge then becomes: How can the actual and the ideal be thought consistently together in such a way that no logical incongruity stands in the way of our actualizing the ideal? When this problem is solved, we know how to satisfy our desire; that is, we know what qualities of the actual must be changed in order to bring about the condition we desire. Of course this does not involve the practical realization of the ideal, for that may still lie outside our powers, though our knowledge may be quite perfect. The need, therefore, does not constitute the problem which thinking solves; but this is rather constituted by the incongruous logical relations introduced into our experience by the conception of an ideal situation. Even had the need been merely the desire for knowledge, merely the need for a logically consistent experience, not the desire but the inconsistent experience would have set the problem which thought had to solve.

This account of the part which thought plays in dealing with a practical difficulty affords a clue to the understanding of the action of thought in all other cases. The one problem which thought is able to solve is the problem which is presented by an inconsistent experience. It is not the variety of objects we may have before us, or our need of manipulating them, which presents a problem to thought. Only in case experience is not logically coherent do we have a difficulty with which thought can deal. Thus, when the discovery of a new fact makes it necessary to reformulate a theory, it is not the fact as an isolated bit of knowledge which necessitates the reformulation. It is the inconsistency of the new fact with the other facts on which the theory is founded. The attempt to think all the facts together as explained and unified by the theory ends in failure, because the new fact involves certain relations which the theory fails to express.¹

But, it will no doubt be asked, how does this explain the origin of the fact itself? Are we not presupposing that the fact comes to consciousness before it can be known to be either consistent or inconsistent with our established body of knowledge? Does not the fact, then, rest upon observation or upon some process of immediacy distinct from and prior to the formal organization of experience?

We have already endeavored to show in the preceding discussion that fact and theory advance *pari passu*, and that neither has any proper meaning apart from the other. It follows, therefore, that the procedure which, for practical purposes, may be called discovery of new facts, as distinguished from the relatively different procedure called explanation or theorizing, must properly form part of the process of thought itself. The attempt to regard

¹ There should be no need to argue before the present generation of philosophical scholars that a theory must take account of all the facts obtainable. Accordingly, the not infrequent strictures of certain self-styled 'empiricists' on what they are pleased to call 'intellectualism' or 'rationalism,' — as if there were still a group of thinkers seeking to maintain the virtue of pure *a priori* speculation *in vacuo*, — ought to require no refutation. Such criticisms reflect the inadequacy of their authors' conception of thought rather than the theories of any living philosophers. We shall therefore assume, when we speak of the problem of thought as being the introduction and maintenance of logical coherence within experience, that any form of consistency which rests on the neglect or distortion of facts is not here in question. The method of thought is not that of Roman conquest, — *ubi solitudinem faciunt, pacem appellant*.

observation as a logical function outside formal thought cannot escape the fallacy of separating form and matter. For if the process of knowledge is supposed really to begin with an observation of facts which are later to be theorized, there appears to be no other supposition possible than that observation furnishes the material about which we think and that thought is a formal way of dealing with this material. But it is sufficiently clear from the actual procedure of science that observation is always to a great degree selective; that is, its significance is determined by the scientist's conception of the rational whole within which he supposes his particular cases to fall. The more perfect the formulation of the theory, the more completely is the course of experimentation and observation controlled by it. To such an extent is this the case that, in physical science of the present day, I suppose experiments are rarely or never undertaken which are not intended to be crucial on some doubtful point. But even in the most chaotic experience, there is no reason to suppose that observation is quite unselective; and it is difficult, if not impossible, to see what observation could mean if the experience into which it fell were entirely unorganized. The observations would apparently have no bearing on anything, and hence would be entirely without significance.

Accordingly, the process of observation should be conceived as one moment in the total function of rationalizing thought. It is a part of the procedure by which the end of rationality is achieved; and its value, therefore, can be understood only in relation to this concrete process. Thought discovers its problem alike in imperfect organization and in the lack of the necessary concrete facts to make the system intelligible. It is not enough that thought should attain formal unity and coherence, but it must also reach out for all the facts which experience has to offer. If, however, experience is considered at a relatively undeveloped stage, the two defects, — imperfect organization and incomplete grasp of fact, — must go hand in hand. For if the organization is incomplete, the significance of the facts cannot be clearly perceived; and if the facts are not yet known and understood, the organization must remain merely tentative. Any unity short of

complete totality is always in a state of unstable equilibrium, and hence must undergo constant revision and reconstruction. But the process of reconstruction is more than the redistribution of a number of existing facts. It is a genuine epigenesis, a process of organic growth, which brings to light new facts at the same time that it relates and systematizes them.

The net outcome of our criticism of Rickert's position, therefore, lies in the fact that he conceives the relation between fact and theory in a merely external way. Fact, or the experience of the real world of individuals, is defined solely as that sort of experience which conception can never quite attain, while conception gets its definition from the fact that it can never quite do justice to the perceptual reality. Experience is therefore necessarily dichotomized into two antagonistic elements which by definition cannot stand in essential relations, and must therefore be externally and mechanically imposed one upon the other. The only remedy lies in the complete surrender of this position and in the recognition that the isolated, unique individual and the merely general concept are opposed abstractions, neither of which can, in the nature of the case, be real. They are limiting conceptions which lie at opposite ends of two processes of abstraction, and which are both equally distant from the concrete reality. The one is the final term of that series of abstractions which emphasizes the immediacy of experience, and which finally rests in the merely given, the isolated individual unrelated to every other content of experience. The other lies at the end of that series of abstractions which puts all its emphasis on the merely relational aspect of experience, and which therefore reaches its final term in a purely hypothetical relation that has no point of contact with real individuals whatever.

The concrete reality, however, is neither of these, but is the living unity of the two. In all knowledge we are able to distinguish two aspects, the categorical reference to reality which we have called fact, and the hypothetical or universalizing tendency which brings every so-called fact under a general principle. Either aspect may be dominant in any particular judgment, but the total elimination of either could end in nothing except the

destruction of the judgment itself. Every fact, therefore, from this point of view, is an incipient theory. The categorical statement is really a meeting-point of various logical relations, and therefore it always has a more or less explicit reference to other facts. It is precisely this which constitutes the meaning or significance of a fact. In order to be a real fact, it must be relevant in some rational context. If it were not thus relevant, it could not be distinguished from an unmeaning jargon of words. On the other hand, every theory is in some sense categorical. No hypothetical statement is ever made which is not supposed to have some sort of reference to reality; it is always meant to express real relations, though they may not be exemplified at a particular time or place. Without this categorical reference, the hypothetical judgment would lose its meaning. At the same time, the more or less abstract development of the merely relational aspect of experience results indirectly in the enriching of the categorical experience from which the generalization began, because it brings to light latent relations which further define and interpret the original facts.

Our real experience, therefore, is always an interpenetration of form and matter, of categorical reference and hypothetical relation. In the language of logic, experience is invariably in the form of a judgment; that is, it is always a synthesis of parts within a logical totality, a unity in differences. The description of concrete experience as a mere manifold of perceptual objects, each unique and isolated, is merely an assertion of difference to the exclusion of the other aspect of judgment, its unity. It is an abstraction which negates the possibility of rational knowledge, because thought is able to work only within an experience which has the judgment form. For thought is precisely the function by means of which this logical unity in difference is maintained and extended. In every case the problem of thought is the elimination of inconsistency and the extension of rationality within the all-inclusive judgment which supports experience. Clearly this problem implies some degree of organization already achieved, for inconsistency has no meaning except within an experience already partially rational. Concrete thought is

the process of growth by which this organic experience expands. It is at once a process of integration and differentiation in which both its categorical and its hypothetical aspects attain progressively more and more complete expression.

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DETERMINISM AND INDETERMINISM IN MOTIVES.

THE controversy over determinism has turned principally upon four points: (1) man's appreciation of his relation to (dependence upon or independence of) a larger reality, called God, the Absolute, or Nature, according to the degree of religious interest involved; (2) man's consciousness of 'responsibility,' or freedom from compulsion, in specific acts; (3) the universality of the explanatory principle of causality; (4) the introspective study of the motives of decision in individual cases. Of these, the first and second, *i. e.*, the religious and ethical considerations, belong in the category of feelings, in the sense of being relatively non-intellectual, and characterized by rest, resignation, exaltation, depression, tension, self-condemnation, etc.; while the third and fourth, as scientific attempts to apply methods of description and explanation to a certain group of facts, are specifically intellectual. It is further noticeable that the last two are, so to speak, scientific formulations of the first and second; the feeling of relationship to the whole becomes in logic and epistemology the problem of universal law, and the instinctive belief in freedom gives rise to exact scrutiny of the factors involved. Hence it is not surprising that the problem, whatever its practical solution by the feelings, has lately received most attention from the theoretical point of view, and that discussion has centered upon the two points last mentioned, namely, the report of introspection, and the logic of explanation.

Here matters have gone somewhat unfavorably for the indeterminist. Naïvely, indeed, the plain man, — that interesting and useful philosophic supernumerary, — believes that he is free, or rather, he holds an apparently self-contradictory belief that his decision is both determined and free, being the result of reasons, and at the same time a judgment between them. His unreflective attitude, in so far as it can be formulated, seems to contain implicitly these opposed assertions. Moreover, a similar doubleness appears in one form or another in the views of many eminent

writers, who hold that, while the various influences or motives of choice are genuine, they do not of themselves determinately explain it.¹ Such a report, however, fails to command general assent. Careful study of consciousness, it is declared, shows that in a given case we could not, under precisely those conditions, have decided differently; we always find that we chose what we preferred, and it would be absurd to suppose that we could have chosen anything else. Logically, too, it is regarded as foolish to fancy that the texture of natural causation has any such holes or threadbare spots as the above self-contradictory account alleges. And as the indeterminist, in his efforts to elucidate his views, suffers from the exigencies of language and often lapses into obscurity, he sometimes appears to admit, at least verbally, the very opinion that he pretends to reject, and so invites some of the contempt that determinists bestow upon him.

Yet indeterminism is very much alive. It has lately been brought into special prominence, also, by the humanistic movement. For it offers itself as a true account of that most important phase of reality, human experience, and thus raises the question whether its report is correct. The issue is joined on scientific grounds, namely, the third and fourth considerations specified above and, accordingly, it is with these that the following remarks are concerned.²

¹ For example, Professor Royce says: "Human nature, down to the least externally describable detail of its temporal fashion of expressing itself, is a natural phenomenon, a part of universal Nature, and is as much capable of some kind of explanation as is any natural fact." But, he adds: "All causal explanation has to do with the types and the describable general characters of events, and never with what is individual about events. For the individual . . . is the indefinable aspect of Being. But what you cannot define, you cannot explain in causal terms" (*The World and the Individual*, Vol. II, p. 325). Professor Bowne, also, writes: The actual freedom of human beings "means simply their power of self-direction within certain limits set by their own nature and the nature of things" (*Metaphysics*, p. 406). And again: "We discover freedom and uniformity united in reality; or rather we discover reality as having these opposite aspects" (*ibid.*, p. 412). The names of those who have affirmed the reality of both principles in human conduct make a long and imposing list, including Descartes, Kant, Lotze, Martineau, James, and others. See, for instance, James's *Psychology*, Vol. II, p. 577, footnote.

² One who writes upon this question feels an uncomfortable need of an introductory apology. Yet, even if we do not agree with Mr. Sturt that "after centuries of debate free will still remains the crucial problem of philosophy" (*Idola Theatri*, p.

I.

Psychologically, the deterministic argument runs thus. Volition reduces to the realization of desire. That is to say, there is present in consciousness a desire, or, to be more explicit, a conflict of desires, "given to us like a hand dealt at whist," of which the strongest automatically realizes itself. The advocate of this doctrine is skilful in showing that statements of indeterminism are left-handed assertions of his own thesis, since any alleged potency of the will is thinkable only as the implication of another desire; and in pointing out the logical absurdity of supposing that the weaker desire could suppress the stronger. Language itself, it is said, expresses the deterministic fact: we explain our 'free' actions by giving our reasons for acting so. Reflection, if dispassionate, convinces us that such reasons permitted no other act; they may have been unsound or immoral reasons, but in any case their superior strength made a different decision impossible. Apparent exceptions, as for instance self-denial against the tremendous push and pull of natural appetites, really reveal, if consulted perspicuously, the greater force of the triumphant motive. On the basis, therefore, of empirical facts, the cumulative evidence of which is unmistakable, determinism is declared to be 'the last word of psychology.'

Is there a fallacy here? I believe there is, namely, in *the assumption*, unexpressed perhaps but vitally important, *that a conflict of desires implies determinate relations of comparative strength among the desires*. For determinism means the exercise of superior force,¹ and it presupposes that a desire, as a bit of mental mechanism, has a specific energy, greater or less than the specific energy of other desires. Decision occurs, accordingly, because of this superior strength; hence the causal relation is in many

64), we cannot but recognize the vitality of the problem, and the fact that it has no generally accepted solution. The question is, however, so definite as continually to suggest the possibility of reaching something like scientific agreement in answer to it. Hence any careful attempt to state the matter precisely is justified.

¹ I do not mean to say that this is the only conception of determinism, but rather that it occupies an important place in deterministic literature. The other conception, namely, that of thorough uniformity, is not based primarily upon introspective grounds, and so need not be considered at this point. If the words force, energy, and strength are objectionable to the phenomenalist, intensity may be substituted.

cases introspectively discernible, and in all cases logically inevitable. If this presupposition is admitted, the deterministic conclusion follows; for it would certainly be absurd to say that the weaker of two desires could annul the stronger. Hence if there is a fallacy it must be sought in the assumption.

The latter rests psychologically upon our familiar experiences of wanting some things more than others, and psychophysically upon our consciousness of muscular strain, etc., which accompanies desire; *i. e.*, such facts reveal or constitute the character of 'strength.' From this evidence, however, it is a long step to the inference that one desire is always stronger or weaker than another. For the latter notion implies that there is a homogeneity among the desires, that there are *quantitative* relations, and in the last analysis definite units of energy which may serve as their common denominator. Unless they can be reduced, at least theoretically, to such a quantitative basis, we have no right to say that one is 'stronger' than its opponent. The word might have a figurative usage, but it certainly would not be an exact scientific statement. Moreover, it should not be forgotten that this alleged superior strength is supposed to exist *before decision*, since decision is regarded as caused by it. Yet when we consider cases introspectively, what we often find is a collection of desires that differ not quantitatively but *qualitatively*. They may be as unlike as color and taste, and may utterly fail to show a comparative character. This is not to say that desire has no comparative aspects whatever, but it is to say most emphatically that a conception which involves comparative *quanta* of energy among desires is not justified by introspection. Only upon the assumption of such *quanta* does the deterministic theory, or rather this feature of it, become intelligible, yet the *quanta* are not perceivable. Motives are often so qualitatively different that no exactly comparative measurement can be made. Herein lies one fallacy of determinism.

Let us consider a few illustrations: (1) The simple choice between two viands on the bill of fare, say beef and veal; (2) A student's temptation to go to the theater instead of staying in his room to prepare a lesson, — with its various motives: his regard

for the subject of the course, expectation of being called upon to recite, opportunity for later study, mental condition, fondness for the theater with its lights and music and dramatic remove from the humdrum monotony or irksome responsibilities of life, desire to see this particular performance or this 'star,' state of private exchequer, etc. ; (3) The stern perplexity at the outset of a career between the duty of self-development and the duty of care for others, wherein enter a multitude of diverse considerations. Now I am not asking what we should find in such cases if we possessed infinitely perfect insight, or what we must presume to be there in accordance with a particular conception of causality ; the question is rather what we actually find in cases within our own experience of which the foregoing are typical. My own empirical report is that there is not, up to the point of decision, any assurance that one course or object is more desired than the other ; that one set of motives is stronger than the opposing set. We do not perceive or feel the strength-character, *quantitative and comparative*, among our desires. The fact appears to be, not a definite more or less, but a qualitative diversity, *i. e.*, the motives are intrinsically incomparable. In so far as the situation is novel or complex, we do not know which alternative we prefer ; indeed, the persistent and troublesome fact is that we want both. Hence, as a matter of purely introspective observation, it appears more than dubious whether determinism is correct.

But it may be objected that reflection and language both tell us that we chose *A* rather than *B* because we desired *A* more. And if this is true, then the deterministic relation is established. But as a reflective description of the choice, it does not seem to me true. Carefully scrutinized, the choice appears not to have followed the stronger desire, but to have been identical with it. The 'more,' or comparative element, did not precede the choice, but was first established by it. The choice was not what I had preferred, but that I preferred it. To weigh, estimate, and 'make comparison' of possible consequences is not simply to observe comparative values, but partially to create and establish values, to transform them from a qualitative to a quantitative diversity. Indeed, it cannot be too strongly emphasized that decision is not merely a

discharge from the past, but an act in the present, and this as a report of observation. We are likely to be misled also by our habit of repeating our decisions like blows of a hammer. Thus the preference alleged as the cause of the decision may itself have been a decision, and so the psychological problem is only moved a step farther back. Reflection tells us, therefore, not that there was a preference which dictated a particular choice, not that the latter was necessitated by any or all of its conditions, but that it was an active solution or unification of them.¹

It is sometimes said, however, that decision itself shows which desire was the stronger. This cannot be admitted. Decision shows, not which *was* the stronger, but which *is* or has become so. To argue that this present supremacy is an index of the specific energy of the motives in the past, is as unsound logically as it is empirically unverifiable. For such argument implies, as its indispensable premise, that decision can follow only upon the stronger motive, which is the very assumption under discussion. The reasoning is clearly circular.

But why, then, it may be asked, does decision come at all? If no motive or set of motives is stronger than the rest, why should there be any decision, or why this rather than that? The answer is that the perplexity needs *some* solution, and, if this is not provided for by our habits of decision, we must perforce forge the first link of a new habit. This forging process may be called a 'fiat of the will,' or plain 'chance,' or an 'experiment,' or a real 'creation'; each of these terms is perhaps unsatisfactory, but they all refer to a very genuine fact of life. In the last analysis of a given case, I find that I decide this way because I have to decide *some* way. Of course this does not mean that I decide *any* way, *i. e.*, quite oblivious to impulses, reason, motives, etc. On the contrary, I make all possible use of these. They illuminate the situation, and so determine limits within which I must decide. My present situation, for example, offers several considerations with reference to the alternatives of spending the

¹ For a psychology which disbelieves in perceived mental activity, this paragraph would, of course, need restatement. But as such psychology recognizes, meta-psychologically, the reality of a will activity *which is somehow known*, I do not see any fundamental disagreement. I shall speak of this metaphysical dichotomy later.

Christmas recess here or taking a long journey to my home. These considerations determine me to do one of the two things, and exclude other possible courses, but they do not issue automatically in my choice. When I decide, indeed, it is to settle a matter which does not otherwise settle itself. My decision is experimental, and while I believe that I am doing the right thing, it is after all, to be quite frank, my 'will to believe.' Paradoxical as it sounds, introspection tells me that I am compelled to do something appropriate to the situation, but just what that shall be I freely choose.

This way of stating the case involves the recognition of two common errors. In the first place, it is unfortunate that some indeterminist writers designate the will as a supplementary and deciding factor. This gives the impression that the will works externally upon the motives, and is, coördinately with them, a cause of the decision. It is truer to observation, as well as less open to verbal criticism, to say that the motives are the causes, and that the will is the decision itself. Secondly, the determinist conception of 'character' as the cause is unsatisfactory; for no character is so completely unified as to accomplish perfect determination in a really novel perplexity. Indeed, in such a matter the very difficulty is that both of the alternatives appeal to and are compatible with the character, and that the latter, on the basis of its past, has no perceivable predilection for one rather than for the other. 'Subconscious preferences' are of course inadmissible. They are not only unverifiable, not only non-moral, but they are logically inconsistent with the novelty of the difficulty, since they could have been developed only through experiences essentially like the present one.

To put the matter abstractly, there seems to be no final introspective reason why the past history of the world in general, and my past history in particular, should provide a uniquely necessary resultant of the present complex situation. The latter may compel me to choose something, and may even prescribe that the 'something' shall fall within certain limits; but why need it imply a particular something? The usual answer is that otherwise the result would be absolute chance, irrational and non-moral. But

this is plainly a mistake. Chance within narrow limits is certainly not absolute chance, nor in any wise fearful. Furthermore, inasmuch as possible alternatives always have their respective reasons, it is simply a perversion of terms to call undetermined decision irrational or non-moral. The failure to discriminate between absolute and relative chance is one of the logical weaknesses of the determinist position, and equally unfortunate is the neglect of the patent empirical fact that our lives are safely and agreeably pervaded by practical indeterminism, since our partial ignorance not only prevents us repeatedly from knowing just what to expect, but thereby occasions much of the charm of living. Determinism, as 'the last word of psychology,' appears to indicate insufficient analysis.¹

II.

This introspective consideration of the problem, however, has left another important aspect of it largely untouched. "The empirical fact," it may be said, "is admittedly inconclusive. It seems to have an indeterminate as well as a determinate character. But this only shows that it needs to be more precisely interpreted. Indeed, every fact, if it is exactly apprehended, involves some degree of interpretation or mediate knowledge. And, in this case, the interpretation must be deterministic, since the implication of real chance would be ethically and rationally unendurable." Accordingly, many writers of scientific bent or sympathies look upon the matter as primarily one of logic, namely, the domain of the causal principle, or the prevalence of uniformity throughout nature. For them the question is settled by certain axioms of causality which must be held on other grounds, even, if necessary, against the testimony of consciousness. Unfortunately there is no such general agreement about the meaning of the concept of causality as to make discussion easy. Nevertheless some fundamental principles appear clear.

First, causality as a constitutive function of thought is cer-

¹ The occasional accusation that indeterminism means 'the ability to do what one doesn't want to do' is gratuitous. It means the ability to do either of two things, both of which one wants to do. To insist that this amounts to the same thing, since, relatively speaking, one desire is not so intense as the other, is to make the palpable misstatement which is the subject of the above paragraphs.

tainly not absolute. That it is such a function, that we naturally interpret events causally, is unquestionable. But this does not imply perfect determinism. It implies only that every event is related to preceding events in a peculiar way that we designate as causal. This connection, to speak generally, is not posited *a priori* as necessary. From the epistemological point of view, lawfulness and chance are both genuine functions of thought. 'It happens' is as natural a usage as 'it must follow.' And the reply that the former phrase indicates only ignorance or carelessness about causes is inadequate. For there is a considerable amount of expert testimony to the fact that many thoughtful persons regard 'happenings' as real, not in the sense of utterly lacking causes, but as having also a partially accidental character. The application of the category obviously differs among different minds, and still more in reference to different kinds of events, but the usage appears fundamental. And I would add that to brand chance as 'a spurious concept' is not only incorrect empirically, but it is also inconsistent with the lusty survival of the outlaw in the development of intelligence.¹

Secondly, if causality means 'uniformity' in the 'same-antecedents-same-consequents' sense, it obviously fails to cover the fact of human volition. For, if any phase of this fact is unmistakable, it is that the same conditions never recur. The real question, therefore, is not what would happen in a hypothetical recurrence of exactly the same conditions as formerly occurred, but rather what can happen now. Doubtless, *in so far as* the same antecedents reappear, a deterministic result follows; but this evidently implies that, *in so far as they are not the same* (and they are always somewhat different), the result is, by the very definition of causality, not absolutely determined. Indeed, on this definition, volition would be, as was said above, determined generally, *i. e.*, within certain limits; but within these limits it would be particular and free.

The objection may be raised that the general and the partic-

¹ This view is commonly held in connection with a metaphysical theory, according to which absolute determinism is an abstraction from or transformation of reality, and as such is the presupposition of scientific effort. I offer some comments upon the view in the third section of this paper.

ular always exist together, that there can be no particular fact without its general aspect, and hence subservience to law. This is true, but what it means is that the general aspect, uniformity or lawfulness, is the determinate aspect, not that it implies one particular rather than another. Any one of several particulars would be lawful, since each would be a specification within the limits set by the universal. Concretely, I can, in a given situation, do any one of several things, because any one of them would be appropriate to it. At this moment, for example, I am determined by my situation to advocate indeterminism, but just how I shall advocate it, by what arrangement of sentences, usage of principal arguments, etc., I am not particularly determined. Hence I guess, choose, experiment. Some time ago I was determined simply and generally to deal with the question, but how, *i. e.*, whether to write about it or to postpone consideration, I freely chose. Presently, when I have selected my next thought to express, I shall be determined simply and generally to express it, but whether by this or that grammatical construction I again freely choose. So all through volitional life the determination and the freedom appear together.¹

¹ The formal side of this matter consists in the relation between the general and the particular, and, on account of its logical importance, deserves a more explicit statement. (1) Any individual fact, thing, or action has both these aspects, general and particular. The former consists in the likenesses by which it resembles certain other facts; the latter reduces, in the last analysis, to peculiarities distinctive of itself alone. This implication of both is the indispensable condition of its being individual. (2) The particular aspect is real, or, as it has been phrased, difference is always ultimate. The peculiarity cannot be finally resolved into general qualities. No network of universals can constitute a particular; at best they can only serve to reveal it. A fundamental unlikeness belongs to every individual fact, and this unlikeness, whether of space, time, color, intensity, or what not, cannot be explained away by identification with anything else. (3) Several of these peculiarities belong under the same general character, like the various shades of a color. The individual *M* has a general character *A* and a particular character *a*. Another individual, *N*, with the same general character *A*, may have the particular *a'*. (4) The general character is determinate; the particular indeterminate. Given the conditions *C*, the similarity of these with other cases means that their result will be similar to the result in those cases, *i. e.*, it will have the general or lawful character *A*. But this character may be particularized as *a* or as *a'*; either would be lawful because either would fall under the generality *A*. And so in the case of decision. For example: I am asked to give a lecture, the preparation for which would conflict with my teaching. I muster the various appropriate considerations; these express the laws of my life. Perhaps one of them, say my sense of obligation to my university, excludes the lecture, *i. e.*, the particu-

The same considerations apply to another ramification of the subject. It is frequently presupposed, by both parties to the controversy, that indeterminism signifies a special perquisite of human nature, in distinction from the rest of that nature which is regarded as mechanically determined. 'Uniformity,' then, is used to signify that the cosmos is all lawful in the same way, and the scientific mind objects to the exclusion of a little group of facts, even if they are 'human.' Now undoubtedly human nature is to be interpreted partly on its own merits and without prejudice from other lines of study, but we need not make any such absolute cut through the universe as the above conception of indeterminism implies. For determinism and indeterminism are true of all departments of nature in precisely the same general way; everywhere the conditions of an event are in the last analysis the entire condition of the universe, and so are unlike those of every other event. For practical purposes, fortunately, we need not consider such an infinite complexity of conditions, but if we theorize about *absolute* determinism we are logically bound to consider the matter absolutely. And then we cannot escape the fact that the conditions of an event are in some respects like, and in some unlike, those of other events. Accordingly, determinism is everywhere only one aspect of the fact. It is an important qualification, however, that the degree of likeness and unlikeness varies in different fields of nature. In the case of inorganic and lower organic forms, the antecedents of this or that fact are far more like those of other facts; *e. g.*, the conditions which precede the falling of a stone or the formation of a crystal closely resemble an infinite multitude of previous cases. Or, again, the stimulus-reaction phenomenon of an insect or an infant is a repetition of innumerable almost identically similar processes

larity of the latter lies outside that law; then the matter is settled. But suppose my obligation permits or even recommends either pursuit; suppose I am unable to find any advantage in one course rather than in the other. Then my decision will be lawful either way, since it will fulfil my duty to the institution, my duty to myself, my desire to reach the outside world, or my desire to make progress in my class-room, etc., etc. These laws determine me to do one thing or the other, as against taking a vacation or spending all my time in private research, but they leave an indeterminate-ness. My decision has, if you please, an element of chance, but it is neither 'blind,' nor dangerous, nor exclusive of reason or purpose.

in the history of life. But in the self-conscious decision of a human being, this resemblance largely fails. It is, indeed, somewhat like past facts, but its striking feature is its self-conscious novelty as the individual's own affair. In the former cases, the indeterminism is, so to speak, fine grained and ultra-microscopic, so that perfect necessity appears to monopolize them. In the latter, the possible alternatives are more evidently discriminable; the limits within which the new fact must fall are farther apart. Thus reality is always in the making through consciousness. Habits are constantly being established and passing out of consciousness in a more and more determinate fashion. But nowhere is the process absolute, *i. e.*, nowhere in nature is there absolute chance or absolute necessity. Accordingly, we may hold indeterminism in human choice without abandoning the concept of uniformity throughout nature.¹

It is, however, exceedingly difficult to get rid of the feeling that the fact must be 'all law or no law.' This feeling it is which finds expression in such exclamations as: "Psychical changes either conform to law or they do not"; or, "Volitions are either caused or they are not"; or, "Between the theory Chance and the theory of Law there can be no compromise, no reciprocity, no borrowing and lending." These unqualified assertions are essentially untrue. Logic necessitates no such judgments. It would, in fact, be just as correct to say: "All things are either alike or different"; "between the theory of Likeness and the theory of Difference there can be no compromise," etc. Now

¹It is acknowledged that absolutely precise determination is never observed, even through physical measurements. It is customary to attribute discrepancies to errors in observation, as is of course perfectly proper in part. But to say that a perfect observation would discover perfect mechanism is to assume a conception of law that cannot be logically maintained. A perfect observation, one that included every condition, would have to include the whole universe. Measurement, no matter how precise, is always obtained by throwing away 'unimportant' factors, and is therefore always relative, never absolute. The more such factors are included, the more the difficulty repeats itself. In the last analysis, the 'law' of determination would be a perfectly unique statement of the relation of this total situation to this total result, and so would not be, strictly speaking, a 'law' at all, since it would lack the generality covering other actual cases; and, on the other hand, in so far as this total situation is like others, and this likeness may be abstracted in the form of a general 'law,' we ignore its distinctive peculiarities, and so fail necessarily to establish this particular result rather than some other closely approximating it.

likeness and difference are just as abstractly contradictory as determinism and indeterminism, yet experience shows that things are both alike and different at the same time, and we accept the fact very calmly. So also experience, especially that of human self-consciousness, shows that occurrences both have causes and are free. And if someone corrects us by saying that things are alike *in certain respects* and different in others, we may cheerfully admit the correction. It is precisely so with the other adjectives. An act is determined in certain respects, *i. e.*, as to its general character, and undetermined in others, *i. e.*, in particular. The attributes become inconsistent only when abstracted in an absolute, unqualified sense which is generically fallacious.¹

III.

The radiations of this problem are so numerous as to make it impossible to follow them all in a short discussion. There is one, however, to which reference has already been made, and which deserves attention here. For many writers the all-important consideration is metaphysical. They hold that the reality of rational purposes guarantees the reality of a free realization of them, and add that scientific determinism is a subordinate category, absolute in its own sphere, but limited thereto.

This method of treatment appears to miss the real issue. It rightly indicates the scientific consciousness as only one aspect of life, and in so far it is perfectly compatible with the view set forth in these pages. But it fails, after all, to reconcile the inconsistency of real purpose and complete determination. The attempt to relieve the apparent contradiction by relegating the opposed concepts to different spheres of reality must always encounter profound objections. First, many a thoughtful observer finds himself compelled to acknowledge the reality of scientific facts.

¹ The historical controversy has at its root a logical contradiction, *i. e.*, between a universal and a particular proposition. It is: An event is undetermined in none of its aspects, *vs.* An event is undetermined in some of its aspects. The weight of the universal lies on the determinist. To speak of 'absolute chance, such as the doctrine of an indeterminate free will maintains,' is painfully unjust. Indeterminism, in the persons of several of its most brilliant expositors, has never thought of denying causality or affirming absolute change. To *assume* that indeterminism is identical therewith is simply to beg the whole question.

For him, indeed, the world of science and the world of purpose are so blended in experience that he cannot regard one as more real than the other. Partial and abstract the facts of science may be, but they constitute true knowledge of reality. And accordingly, if science tells us that in the brain or in the associative processes of the mind *A* completely determines *B*, then no designation of this fact as subordinate can obscure its inconsistency with our appreciation of its spiritual counterpart as a free decision. Secondly, while there is undoubtedly a division of intellectual functions such that we may pay scientific, *i. e.*, descriptive and explanatory, attention to a fact at one moment, and appreciative attention at another, yet both functions give us truth, and hence they cannot maintain an intellectual contradiction. Truths, that is to say, cannot be contradictory, even in different spheres, for the very distinction between the latter shows that the contents of both are apprehended intellectually, and so are amenable to the law of contradiction. Important and influential as this metaphysical theory has been, it yet seems to me to fail to gauge the depth of human puzzlement over the problem. The real difficulty lies in the alleged absoluteness of the determination, and therefore it is this character that must stand critical examination. That science has such a postulate is a dogmatic assertion which I do not find sufficiently justified by the nature of the concept of science, or by the facts of experience. The postulate is, indeed, an Idol of the Theater.

Such considerations, though the expression of them here is necessarily fragmentary, indicate as of primary importance the logical and psychological aspects of the problem discussed in the first two sections of this paper. And in these fields the facts seem to me to reveal the complementary and relative truths of both determinism and indeterminism.

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REVIEWS OF BOOKS.

Studies in Philosophy and Psychology. By the Former Students of CHARLES EDWARD GARMAN, in Commemoration of Twenty-five Years of Service as Teacher of Philosophy in Amherst College. Boston and New York, Houghton, Mifflin, & Co., 1906. — pp. 401.

This volume, edited by a committee of five of Professor Garman's former students, is a significant fruit of the advance of serious thought and independent research in American college life, an evidence of increasing solidarity among men of scholarship, and an indication of the growth of a desirable intellectual piety. The stimulating influence of Professor Garman as a teacher has long been a familiar fact to those interested in philosophy, and has palliated, although it has not removed, the regret that he has not sent forth in print the products of his vigorous intellect. A recent investigation of the collegiate education of American teachers and writers in philosophy and psychology showed, I believe, that, considering the relative size of institutions, a greater proportion of these teachers came from Amherst College than from any other one institution. It was in every way appropriate that the rounding off of Professor Garman's twenty-five years as a teacher of philosophy in that institution should be commemorated in this *Festschrift*.

An introduction to the volume is found in a ten-page letter written by Professor Garman and published in the *American Journal of Psychology* in 1898, giving an account of his ideals and methods in teaching. The following quotation is indicative of the spirit in which he has conceived training in philosophy; and is, perhaps, the most significant commentary on the freshness and diversity of the philosophical positions which are, as a matter of fact, presented in the essays which make up the bulk of the volume: "If you can get the man so far along as to make him have confidence in the power of weighing evidence, to realize how much civilization owes to it, how every department of life can be progressive only through scientific thinking, and then make it a moral question, and show that intellectual honesty and supreme choice of truth for truth's sake, and determination to follow evidence to the best of one's ability, is the great line of cleavage between the saints and the sinners, — if you can force the issue here and win, then the class are entirely different afterwards. I do not

believe without this moral battle, without considering the ethical phases of the question, it would be possible to get the best intellectual results.¹

The essays in this volume are divided into "Studies in Philosophy," of which there are eight, and "Studies in Psychology," of which there are five. Two of those in philosophy are, however, strictly speaking, sociological, and of them, accordingly, a few words may first be said.

In his essay upon "The Expansion of Europe in its Influence upon Population," Professor Willcox suggests that the center of modern history has been the effort of Europe at expansion outside of Europe itself, — an expansion quite as much economic as political and military. The influence of this was the increase of the population of the world from, say, one billion in 1750 to one and one-half billion in 1900. This expansion, Professor Willcox thinks, has not been merely quantitative, but a development in the direction of a higher quality of living, representing a greater mastery over the powers of nature and the living of a more consciously progressive life.

Mr. Woods's essay on "Democracy a New Unfolding of Human Power," might be termed a plea for an ethical, as distinct from a purely economic and political, socialism. It identifies the democratic movement with increasing capacity of mankind for living an associated life, and considers the new impetus and widened outlook which come to the individual in consequence of the growth of his capacity to see himself in the light of an associated coöperative whole. It was, according to Mr. Woods, largely a matter of historical accident that the earlier period of democracy threw the emphasis upon the elements of liberty and equality, minimizing the value of deliberate political and social organization, and in economics laying the emphasis upon the *laissez faire* notion. As the democratic movement works itself free from the circumstances which conditioned its early development, its inherently fraternal and coöperative nature is released. The modern industrial system, with its influences upon social and political life, is not to be referred exclusively to mechanical inventions, but more fundamentally to the growing spirit of association which made it possible to utilize these inventions. Mr. Woods argues that, as the ultimate tendency of political democracy has been to enhance indi-

¹ As Professor Garman's death has occurred since this review was penned, I venture to add another quotation which presents even more clearly, perhaps, the spirit of his teaching. "The young man who philosophizes, who really understands himself and appreciates the truth, is no longer a slave of form, but is filled with admiration that is genuine and lasting."

vidual initiative and force so that even the great productiveness of modern industry is largely to be credited to the indirect influence of political freedom, there is every reason to suppose that, whatever the difficulties of temporary adjustment, the ultimate effect of industrial democracy will be also to multiply initiation and stimulate capable leadership. The outcome of the argument is that "democratic association, instead of in any way restricting and hardening the issues of life, provides to the vital impulse an infinitely varied number of natural, invigorating, inspiring outlets."

The first essay of the volume is by Professor Tufts on "Moral Evolution." He endeavors to utilize the results of modern general and genetic psychology and of social psychology to give a sketch of the development of the moral self. Psychological ideas which are especially laid under tribute are three: namely, (1) the beginnings of mental and moral development in instinct and impulses of a biological sort; intelligent personality developing out of these as the simpler and more immediate discharge of instinct is checked, and a circuitous route of response built up on the basis of thinking and planning; (2) the recognition that the self is many as well as one, and many before it is one—the self as at first a more or less loosely connected aggregate of various instincts and impulses reacting to their own specific cues, rather than an organized system of capacities held together through the recognition of the principles of unity and generality in the situations in which they have to function; (3) the social character of the self: the fact that unconscious solidarity is the status at the outset, that only gradually are separate and individual interests split off and organized, until conscious individuality and conscious social interests are a final outcome. These general conceptions are applied to the interpretation of the development of moral character on its two sides, inner control, purpose, feeling, and external mastery of environment.

Professor Tufts's essay is very compact, many portions of it being sketched in summary, almost diagrammatic outline, so that further condensation is extremely difficult. I shall accordingly refer the interested reader to the article itself for details, and confine myself to certain general impressions which it has made upon me. In the first place, I should say that Professor Tufts has been unusually successful in avoiding the fallacy which easily besets the discussions of moral evolution, that of the fixed separation of 'higher' and 'lower.' It is not uncommon to find the earlier stages conceived in such a way as to make the development of present ethical status inconceivable except at the expense of explaining away most of its significant features. This stimulates a reaction which insists, accordingly,

either that moral evolution is inherently impossible, or else that the higher and later elements are already 'latent' or 'potential' in the earlier stages. Professor Tufts, however, has conceived the earlier stages in such a vitally concrete way as to realize that there are in them factors which are strictly analogous to those of more developed ethical situations, so that the evolution of the latter out of the former can be treated without denying the essential features of morality on the one hand, or falling into very dubious metaphysics, on the other.

The second impression is the concrete hold the writer has kept upon the social character of the individual as individual. 'Social psychology' is used not as an annex to the normal psychology of the individual, much less as a recourse to a mystic over-soul labelled 'social mind,' but as a method of interpreting the actual constitution and functioning of the self. At every point of the discussion we find ourselves face to face with an individual into whose structure social factors are already built; and face to face with a social environment viewed as the medium in which the sociality of the past, consolidated into an individual, displays itself, is developed, and, through opposition and effort, reconstructed. It is this standpoint, more than anything else, I think, which is responsible for the first point I have mentioned; for it enables Professor Tufts to seize upon the genuinely moral problem, elements, and processes in every situation, at whatever plane of historic progress.

Dr. Sharp's paper on "Moral Judgment" is noteworthy among ethical discussions for the consistency with which it takes a single and simple point of view and sticks to it through various windings and turnings. His thesis is that the fact of approbation is the fundamental phenomenon of moral life. He first differentiates moral approbation from other forms by showing that, while all involve a union of an intellectual element and an emotional satisfaction, in an idea thought of as realized, moral approbation is directed at the purpose, the intended aim of an agent, which, since it is a disclosure of the agent's interests, may be treated as identical with "the system of a man's desires, considered in respect to their power to determine action." Yet this is not exhaustive. We may disapprove a purpose, as that of a lawyer opposed to us to win a case for his client, which is injurious to us, without regarding it as morally wrong. Only if we regard such a purpose as wrong for every one, under the same circumstances, would the disapprobation be moral; or, put positively, "a purpose is morally approved when placing ourselves in a social order large or small we wish every member of it to make it his own under the given conditions."

Hence the right is not merely that which we *do* approve; all moral discussion in the concrete involves the supposition of an object which is universally approvable. There is an objectivity to rightness behind the mere fact of actual approbation. This is involved in the notion of the object of moral approbation as concerned with the purposes of *all* placed in a given situation. This involves the ideal of consistency in the various desires, — that they are really a system. On this basis, obligation can easily be explained as a concomitant of the approbation process under certain conditions, with no need of making the notion fundamental to morals. When we find a purpose morally approvable and yet disagreeable, there is a situation of constraint, and this in its emotional aspect is what we call consciousness of duty.

I hope even this inadequate sketch gives an idea of the clear and simple way in which Professor Sharp has worked out his point. I am not sure, however, that at bottom this clearness is not delusive, — not sure, that is, whether his argument does not either beg or evade the real issue. Professor Sharp denies, it will be observed, the Kantian notion of the fundamental character of the category of duty, while he adopts the allied Kantian notion of the universalization of purpose as the test and mark of rightness. Why, a Kantian might ask, do we not simply accept the fact that we find something good, — that we *do* approve, — as indicative of the right? Why do we look at the desire or the intent in which the desire expresses itself with reference to its place in a rationalized, universalized system? Surely, the Kantian would argue, only because it is a duty so to do, — *the* duty: *this* obligation is the moral law, and the essence of morality. In other words, Professor Sharp makes, without justifying it, the transition from the *fact* of approbation to the *ideal* of a certain kind of approbation, which is precisely the crux of all valuational or approbational theories of conduct. In passing, I would remark that, if Professor Sharp had concerned himself with this problem of transition and the *modus operandi* of its achievement, he would be likely to esteem (apart from details which may be eliminated or reconstructed) the machinery of Adam Smith's 'Impartial Spectator' more highly than he does. As it is, in ignoring the problem of getting from a particular or *de facto* valuation to a *de jure*, or universalized one, he has no use for that, or any other social-psychology method.

The most important strictly metaphysical paper in the volume is that by Professor Woodbridge on "The Problem of Consciousness." This paper, on its critical and historic side, is a statement that a certain conception of consciousness controls the development of episte-

mology from Locke to Hegel, ending inevitably in idealistic constructions of the universe; and, on its suggested constructive side, the presentation of an idea of consciousness whose realistic implications are as marked as are the idealistic of the older conception, and one affording a point of departure for various logical problems of basic import. The historic criticism is worked out with force and almost dramatic clearness; considering the space taken, in detail. The constructive portion will suffer, with most readers, from its extreme compression, severe in any case, but additionally so when the conception is avowedly offered not as "a solvent for philosophic problems, but rather a creator of them."

The three underlying notions of modern philosophy, clearly formulated by Locke, that ideas are the sole objects of knowledge, that ideas are acquired, and that knowledge is their composition, all rest upon the notion of mind as an end-term, not as a relation of terms. As such, it is inherently a receptacle or capacity, endowed with constitutional powers and needing an alien factor to arouse it into activity, — this last being the other end-term, possibly an unknown substance, matter, possibly God, possibly nobody knows what. Now the value of such a notion of mind or consciousness (since this is empty in itself) "can be preserved only by assigning to it in increasing measure the character which may ultimately give to the whole of experience and the world their essential features." So mind is gradually supplied with everything that belongs to the universe; things "we can put in our pockets, or throw out of the window, or take into our stomachs, or shut our eyes and ears to," become "mental states"; while the principles of synthesis, the relations of the objective world of experience, become certain active or synthesizing functions of consciousness. Such is the dialectic which out of Locke has created Neo-Kantianism; Professor Woodbridge inserts Hegel as well, for no obvious reason to my mind save that it provides an interesting historic climax.

Professor Woodbridge then advances certain objections to idealism. Among these are the natural difficulty in believing it in spite of its logical systematic character, and the artificiality of its method in accordance with which sensations are declared to be immaterial because, on the basis of the theory, they ought to be immaterial, while at the same time physical things are treated as sensations. "One cannot reach the mind by claiming that all objects are ideas and then trying to establish this claim by insisting that by the nature of mind ideas can be its only objects. It is precisely the suspicion that this is just what idealism does that tends again to make it appear artificial and in-

credible." Among other exterior reasons working against the theory of idealism, is the increasing consciousness "of a vast and unfolding nature which science by its steady progressive achievements constantly deepens within us," which makes more and more suspicious "those philosophies which seek to explain the world primarily from the initial fact that man happens to be conscious of a small part of it." The introduction of the idea of evolution into natural science is peculiarly obnoxious to idealism. It shifts the whole point of view so that the problem becomes not, How does the mind know the world? but, How does the world evolve to the consciousness of itself?

In his constructive statement Professor Woodbridge insists that we should commence with the conscious situation itself as exemplified in our familiar reflective conscious inquiry. Since the problem can appear only within this situation, it is reasonable to suppose that the solution must be relevant to it, — must be an explanation and illustration of it. Hence genetic theories as to the origin of consciousness are rejected as right methods for attacking the problem, and also the methods which would define consciousness through the analysis of the process of perception. When we take the situation of conscious inquiry in and for itself, we find it resolvable into things related somehow to one another. Conspicuous among these relations are the temporal and the spatial ones. Things also sustain in a conspicuous way another relationship to each other, the relationship of significance. Within the conscious situation things are not merely beside each other or after each other, but one thing signifies or means another. These relations of significance are capable of organization and condensation by themselves without modifying in any way the other relations of things. In this contrast, they may fairly be called immaterial relations. It is with their arrangement and condensation that logic deals, just as the physical sciences deal with things in their other relations. The gist of the hypothesis which Professor Woodbridge advances is, then, that consciousness means precisely the possibility of this significance of relationship among things. Take away consciousness and the things still exist in all their other relations; add consciousness and you add just the possibility of one thing signifying, symbolizing, or intending another. Philosophically, then, the theory involves a background of natural realism, a world of facts in space and of events in time of precisely the sort that physical science supposes itself to deal with. On the other hand, it assigns to consciousness a unique and important relation, that of significance, so that the theory is demarcated from those views which regard consciousness as merely an epiphenomenon.

Professor Woodbridge concludes with the sketching of certain problems which his conception inevitably suggests. The fact that things are grouped in different relations in the conscious situation raises the question whether those relations are coördinate or subordinate with respect to one another, or whether they all may be derived from a general unifying relation. This question at least suggests a relational formula as "expressing the simplest and most general type of existence." In any case what we seem to have is a relation between two variables, the fact of variation being independent of the relation, while the relation expresses the way in which the independents vary with respect to one another. Even if the relations could be deduced from one or more fundamental types, the fact of variation in the terms related would still remain underived and ultimate. Only by assuming their original independent variation would there, indeed, be any significance in the deduction of the relations. This remains true, even if we conceive consciousness to be the fundamental relation in question. 'Things' would still have to be taken as the 'independents' whose modes of variation with respect to one another were stated in the various relations in which consciousness (or significance) is expressed. That it should, however, be of this central type, seems to be forbidden by its intermittent character.

Another problem is suggested in the fact that consciousness belongs to the centered type of relations; that is, to that type in which one of the related things varies in such a way as to determine the scope of the relations. Here, again, it is suggested that, just as a highly general study of types of relation would throw light upon that particular relation which is exemplified in consciousness, so a study of centered types of relations in particular would throw light upon the individual aspect of consciousness. Finally, a study of the different types of relations belonging to the significance relationship affords a natural basis for a study of different systems or classes of knowledge, with their characteristic categories.

It is difficult to introduce within the casual paragraph of a review any relevant criticism of a theory which is at once so condensed in form of presentation and so far-reaching in its possible applications. I shall confine myself, accordingly, to a few summary remarks. The sketch of the evolution of idealism out of the notion of consciousness as an end-term, seems to me most illuminating. To one who grasps it and sympathizes with it, it is so conclusive as almost to render any other refutation of Kantian idealism unnecessary. Masterly and significant, however, as is the analysis with reference to one of the motifs

of modern philosophy, it seems to me to leave untouched two others equally significant. The analysis from Locke to Kant succeeded in doing away with most of the fixed dualisms which Mediævalism had extracted from Greek philosophy and handed on to modern times. The dualisms of substance and attribute, soul and matter, Absolute and finite, primary cause and derivative effects, noumenon and phenomenon, etc., etc., all went the same road. They disappeared in the distinctions and relations of plain, ordinary, everyday experience. It is this democratic community of experience which is the permanent truth of Berkeley and Hume, after one has given up the idea that there is any magic in the terms 'consciousness,' 'sensations,' 'ideas,' etc. The other motif is the logical analysis of judgment, which grew up through these philosophies, nominally connected with the theory of mind, but in effect independent of it. That knowledge is judgment, and that judgment involves a distinction and yet a relation of a direct given manifold and indirect or conceptual unifications, is a formula which sums up this development, and a formula which lies much nearer to Professor Woodbridge's own formula than he seems to recognize.¹ Just because the problem involved in this formula is the net outcome of this philosophic movement, Professor Woodbridge's own formula of the reflective situation as that in which physical relations and significance relations are found (and presumably distinguished from and yet referred to one another) seems to me to give a digest of that movement, freed from more or less accidental accretions regarding ideas and sensations (inherited from Greek thought through Scholastic psychology rather than genuine products of modern psychology). It exposes the problem of judgment, *i. e.*, knowledge involving reflection, as a problem. The crucial point of Professor Woodbridge's own argument is, of course, the assumption that the relational formula expresses the general type of existence. It is to be hoped that he will recur to this assumption independent of the idealistic-realistic argument, and will attempt to justify the formula as applicable to reality against the very damaging criticisms which have long been brought against it. Meantime, it is to be noted that it is precisely upon this formula that such writers as T. H. Green base their idealism; and that its outcome would seem to be an identification of reality with reason; a thought system minus consciousness except *per accidens*, like Aristotle's *νόησις νοήσεως*, which

¹ This impression, however, may be due to the brevity of the treatment, for in one passage Woodbridge writes: "The description which I have given of the conscious situation accords, I suppose, with an idealistic description of experience when experience is taken in its immediate and evident character."

Aristotle seems to have regarded as conscious only in flagrant defiance of his own basic principles in psychology and logic.

Professor Norton's article upon "The Intellectual Element in Music" is an interesting and fruitful attempt to determine the logical aspects in the way of concepts and judgments in music. If the general tendency to identify the intellectual factor with judgment be valid, then the treatment of musical forms as modes of judgment ought not only to throw light upon music, but to give a fresh and unconventional way of approaching various problems regarding judgment. Professor Raub attempts to find pragmatism in Kantianism and Kantianism in pragmatism. His account of pragmatism is largely made up in the usual way, viz., by combining selections from Schiller's humanism, James's pragmatism and radical empiricism, and the Chicago school's instrumental logic, and is perhaps as fair a picture of an indefinite tendency as any such miscellany can possibly be. As regards Kant, his chief stumbling-block is, of course, the *a priori* categories. He deals with these not by suggesting that they might be interpreted as an effort to classify the most important working hypotheses employed in the selective determination of objects, *a priori* only with reference to *future* efforts, but by indicating that some pragmatists accept the Spencerian theory that what is *a posteriori* for the race is *a priori* for the individual. Professor Lyman attempts to mediate between theology and the modern mind by use of pragmatic methods, indicating the need of interpreting the supernatural not as the trans-experiential, but as the ethical in experience, and suggesting the possibility, by transforming dogmatic into historic theology, of conserving to man's use the great values worked out in the religious experience of the race. The essay is thoughtful, and free from both the sentimentalism and the arbitrary 'fideism' which sometimes accompany a professedly pragmatic view of religion.

Of the psychological essays, I have left myself no space to speak, and some are so technical that only an experimental psychologist is equipped to speak of them. One essay by Professor Pierce, on the Sub-conscious, and another by Professor Woodworth, on the conditions of a voluntary act, are, however, so clear and comprehensive that they can hardly fail to afford the points of departure for further discussion in their fields.

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Person und Sache : System der philosophischen Weltanschauung.

Erster Band : Ableitung und Grundlehre. Von L. WILLIAM STERN.

Leipzig, Verlag von Johann Ambrosius Barth, 1906. — pp. xiv, 434.

This work develops the metaphysical groundwork of what its author regards as the first systematic exposition of a new world-view. This view is called 'critical personalism,' in contrast with both 'naïve personalism' and 'impersonalism.' Naïve personalism is an unsystematic world-theory, in which both persons and material things are recognized as real, and its universe of being is a confused intermixture of both. Naïve personalism is dualistic : it separates God the person from the world his creation, separates the living from the lifeless, the identical and simple substrate of the soul from its phenomenal manifestations, etc. It depersonifies the person as a whole and personifies an element which it calls the 'soul.' Its view of causality is exoteric, *i. e.*, all causality is *transeunt* or is a transaction between two causes external to one another. Impersonalism, the mechanical world-theory, asserts that nothing exists beyond aggregates of simple elements and combinations of simple occurrences. It reduces all qualitative differences to quantitative, all individual occurrences to mechanical law, eliminates teleology, and reduces all distinctions of *value* to mere illusion. Critical personalism, on the other hand, regards the real world as a hierarchy of teleologically active individuals which, by their immanent working, conserve and develop *values*. Each individual member of the hierarchy at the same time has the intrinsic worth which belongs to it as an individual, and fulfils a function as a member of a higher and more comprehensive individual. Between the lower limiting notion of mere matter or pure thing (*Sache an sich*) and the upper limiting notion of the absolute and perfect Person, every element of reality is at once person and thing, — *person* as self-active and intrinsically worthwhile individual with immanent tendency and power to realize ends, *thing* as functional member in the complex of a higher person. For example, a molecule is a thing with reference to the compound of which it is a part, but a person with reference to the atoms which make it up ; an atom is a thing with reference to all higher unities of the manifold, but a person with reference to matter-in-itself ; a human individual is a self-active, intrinsically worthwhile person, but is also a member of the more comprehensive personality of a family ; a family, again, is thing with reference to the personality of community, state or people, etc. A person is an existence of such character that, despite its multiplicity of parts, it forms a real, unique, and intrinsically worthwhile unity ; and, despite

the multiplicity of its partial functions, it exercises a unitary and teleological activity.

The hierarchical system of personal realities is an immanently progressive whole. There is no action or effectuation which is not teleological. The only real cause is final cause. In telic causality the cause need not equal the effect. Hence the universe of persons develops unceasingly, and attains and conserves ever higher levels of self-realization.

The foundation of this system, which is to be expanded into a doctrine of values, of the world, of science, and of the symbolic forms of art and religion, is laid in the present volume in the two main divisions: I, The Deduction; and II, The Fundamental Doctrines. In the first part we find a dogmatic and epistemological deduction respectively. The logical basis of this deduction is the formulation of the four dogmas of all *Weltanschauungen*. Necessary to an understanding of this and of all that follows is the attitude of 'psychophysical neutrality.' Dr. Stern departs from the tradition of modern philosophy in denying the fundamental position of the problem of mind and body as hitherto formulated, and in refusing to regard 'consciousness' either as the epistemological *prius* or as a necessary metaphysical attribute of persons. Throughout the work he maintains this psychophysical neutrality and insists that metaphysics must be 'metapsychophysical,' *i. e.*, starting from the phenomenological indifference-point of physical and psychical, it must pass to a viewpoint that transcends both physical and psychical in the ordinary sense. The 'four dogmas' just alluded to concern the reality respectively of 'position' and 'relation,' which are both involved in any systematic thinking of the world. These are: (1) Positions must be thought synthetically; (2) positions must be thought analytically; (3) relations must be thought synthetically; (4) relations must be thought analytically. The first asserts that the whole is prior to its parts; the second asserts that elements alone exist; the third asserts that all elements are connected by abstract relations or that relations take precedence over positions; the fourth asserts that all relations depend on positions. Whereas naïve personalism bases itself on (1) and (2), which are incompatible, and impersonalism on (2) and (3), which constitute an illegitimate union, critical personalism is based on the axiomatic character of (1) and (4). A deduction of categories follows. The primary categories are substantiality, causality, and individuality. The first two issue in the third, which is fundamental. The objective criterion of individuality is the unity of immanent or esoteric occurrences (*Geschehnisse*). The objective

criterion of a person is self-conservation (*Selbsterhaltung*), the subjective criterion is ego-consciousness. There is a psychophysical parallelism, but it is only phenomenological. Deeper and fundamental is 'teleo-mechanical' parallelism, of which the formula is, that what from above, *i. e.*, from the standpoint of the whole, is personal, is from below, *i. e.*, from the standpoint of the parts, material.

Main division II consists of A, Doctrine of Being (Ontology); B, Doctrine of Effectuation or *Wirken* (Teleology); C, Doctrine of Connections (Teleomechanics). In the ontological part, the person is defined as a metapsychophysical unity of the manifold having two phases, latent (*an sich*) and actual (*an und für sich*). These two phases interpenetrate. The latent person is constantly actualized and the actualized moment sinks back into the latent state of permanence, *i. e.*, of 'mechanization,' thus making room for further actualization or progress. As object, the latent person is qualitatively unique, and limited in space and time. As object, the actualizing person becomes developed qualitatively in 'organization,' temporally in history, spatially in outer form. Consciousness is present only where a person has progressive tendencies, where it strives beyond its present state towards the new. Consciousness serves the striving towards progress. The essence of the person being individuality and immanent telic activity, the Ego is identical with neither 'Ego consciousness' nor 'Soul.' Behind the conscious 'me' lies the 'I' that becomes conscious (*bewissende 'Ich'*). Dr. Stern says that, whereas the spiritualistic notion of 'Soul' is that of a bare analytical identity, the personalistic notion of 'Ego' is that of a synthetic activity. Will is the active relation of the actual (person) to its phenomena of consciousness. The 'psychic' is deeper than consciousness and in this sense pan-psychism is justifiable.

The 'teleology' forms the crux of the system. True teleology is that of universal immanent striving towards a goal. All working (*wirken*) has two phases, self-conservation and self-development (*Selbstentfaltung*). Dr. Stern's doctrine here seems to be based principally on biological considerations. Inorganic conservation (*e. g.*, in physics) is linear; organic conservation is 'radial,' *i. e.*, every act of organic conservation is directed on all sides and towards the conservation of the whole. In the species, conservation appears as heredity. Organic conservation is not mechanically explicable. Life is, in essence, a functional teleological synthesis. From this standpoint Dr. Stern develops the view that all laws are laws of conservation or reducible to such.

Self-development is the highest mark of persons. All being is in evolution. Quantitatively, evolution is a process of 'extensive integration,' a spatial growth; of 'vertical differentiation' into hierarchical systems, *e. g.*, types, organs, tissues, cells, etc.; of horizontal differentiation, with a multiplicity of individuals; of 'intensive integration' or inner unification of individual, society, etc.; and finally of 'relative cumulation,' *e. g.*, when in civilization mankind enhances its life by increasing mastery of fixed physical processes. Qualitatively, evolution is a series of metamorphoses in which the qualitatively new is ever appearing. It has 'fixed order,' *e. g.*, in mental growth; 'genetic parallelism,' *e. g.*, it holds true for human history as well as for organic evolution that the development of individual and of race are in part parallel; *rhythm* of change from slow to rapid and *vice versa*. After a careful criticism of mechanical evolution (Spencer, etc.), Darwinism, and Lamarckism, Dr. Stern advances the view that evolution, as the universal process of self-realization by individuals, is a fundamental phenomenon. He finds that Hegel and Leibniz have given the most profound interpretations of the process, but steers a middle course between Hegel's excessive monism and Leibniz's excessive pluralism. All evolution is development of persons. This involves inner tendency to the realization of capacity (*Anlage*); but the environment is a factor, hence evolution is not a simple unfolding. There is constant struggle for progress. Persons are finite in duration and the self-development of a higher person means the constant production of new persons. Only the All-Person, God, is eternal and perfect. Dr. Stern closes this part of his work with a theory of the birth of species. Species arise from one another by sudden transitions. In support of this view, he cites De Vries's theory of 'mutations.'

The final section, 'Teleomechanics,' deduces the world of things and mechanism from the world of persons. Law and measure are based on the principle of likeness or equality (*Gleichheit*). Likeness means that one thing can be substituted or serve for another. Hence the principle of likeness is a deduction from that of self-conservation. Like parts will equally serve the whole. The limit of the principle of likeness lies in the fact of the 'threshold value' of reaction. Every personal element has its own threshold of action, and every likeness relates only to one stage in the hierarchy of persons. What from a higher stage is comparable is, when regarded for itself, person in itself and incomparable or unique. Quantity-exchange or theory of substitution-value, and mathematics is the science of the universal condi-

tions of exchangeability. But there are many systems of measurement, since each kind of being has its own threshold of reaction, *e. g.*, the various types of animal organism as well as human consciousness. Teleomechanics must, in its measurements, start from the zero point for each personal level, and a universal system of measurement is gained by reducing each autonomous system to the established physical system. Dr. Stern illustrates by application to psychophysics, bioenergetics, and a suggested doctrine of culture-measurement. For this investigation in teleomechanical measurement methods, he claims only a heuristic value. It is intended as a pioneer of new scientific disciplines.

There is an interesting discussion of the reality of General Ideas, the 'Ideas' of Plato. Dr. Stern's own principle is: *Universalia in rebus, quia res in personis*. He says that, while Plato regards General Ideas as spaceless and timeless, and Hegel regards them as temporally determined, he regards them as both spatially and temporally determined. He denies the universal validity of causal law in the mechanical sense. Causal laws express only partial uniformities. Events never repeat themselves. All real causality is individual. Besides law there is everywhere *specification*, the *hic et nunc et tale*. Causal law expresses the norm of self-conservation: 'Function as universally as possible, but in the sense of conservation of the whole.' Equally valid is the norm of self-development: 'Function in a novel fashion.' The law of the conservation of energy expresses the self-conservation of the All-Person. Laws 'become' or change, since evolution is universal.

This work deserves careful consideration. It is carefully wrought out, even, I think, to the point of over-elaboration. It is a piece of systematic and able thinking, based on history and concrete experience, and confessedly most influenced by Aristotle and, after him, by Leibniz, Kant, Hegel, and Fechner. The mode of statement is systematic and as clear as could be expected in a work that contains so many novel terms. I have found the discussion of evolution the most interesting part of the work, and I also think Dr. Stern's analysis of the four fundamental dogmas worthy of examination. His 'Teleomechanics' is suggestive, although I do not think it establishes clearly the possibility of directly measuring even psychical states of individual men, much less of measuring culture-values; and I think it more conducive to clear thinking to recognize that the measurement of anything in the strict mathematical sense of the term involves its reduction to spatial and quasi-physical terms.

As to the system as a whole, there is not here space to discuss it,

but I will state what seem to me the most serious objections to which it is open. (1) The doctrine of 'psychophysical neutrality' shelves some fundamental problems, and hence involves the system in confusion and inconsistency. I agree that the relation of mind and body is not the fundamental problem of metaphysics; but, if conscious experience be not the epistemological *prius*, what becomes of end, value, and personality taken as ultimate notions? If an inferior person be a functional part of a higher person, and that inferior person be unconscious, for whom does it have intrinsic value, and how can it be an end-in-itself? It has no value nor end for itself, since it is not conscious. Surely value, end, teleological activity, and individuality are categories of conscious experience alone. (2) The deduction of consciousness is inconclusive. If atoms and molecules develop teleologically without individual consciousness, why should consciousness ever be required to further self-realization? Consciousness is an accident in Dr. Stern's system. The doctrine of neutrality is over-driven. (3) The resolution of all causality into the purely immanent type seems to me a verbal solution which really solves nothing. (4) For every person or center of final causation is a member of another person or center of final causation. Either the inferior person's telic causality is illusory or it is transeunt as well as immanent. Logically, in Dr. Stern's system, everything is really accomplished by the All-Person. (5) As a consequence of the above confusion, it is not at all clear how human values, moral, æsthetic, and religious, can be conserved or justified in a system which obliterates, in definition at least, the fundamental distinction between moral and social (or spiritual) personalities and mere organisms, molecules, and atoms. It seems a simple way of vindicating the worth of the spiritual content of personality to advance the theory that nothing is real but persons; but in truth this very theory eliminates a distinction that is fundamental to the personal life itself and eviscerates the latter of all spiritual content. There is no difference in ethical import between a naturalism which denies the reality of persons and a superficial idealism which denies the fundamental distinction between conscious selves and unconscious things. (6) Dr. Stern does violence to the historical meaning of established terms when he calls molecules and atoms 'persons.' It is likewise a confusion to speak of a family, a state, or a people, as a real personality. These are societies of persons. I think that a careful consideration of the epistemological and ontological, as well as ethical implications of the social aspect of personality, might have led to a truer view. It is very important to emphasize the

hierarchical character of the system of reality as Dr. Stern has done. It is a much more adequate analogical expression of the nature of reality to say that it is a hierarchical social system than to say that it is a vast and indescribably complex person containing all other persons within himself. Besides the objections already mentioned, the latter notion lands one in the inextricable difficulty that, while all his contents or elements evolve or progress, the All-Person does not progress; while all his parts are temporally finite, he is eternal. Moreover, in order to develop consistently the notion that reality is a hierarchical social system, it is not necessary to obliterate the distinction between persons and things, nor to conceive imperfect individuals as mere parts contained in the 'All.'

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Idées générales de psychologie. Par G.-H. Luquet. Paris, Félix Alcan, 1906.—pp. vii, 295.

In the preface to this well-written treatise, the author states that this book is intended to present to undergraduates Bergson's psychological theory. Regarding the volume solely in the light of its aim, one must commend it without comment. The presentation is beautifully systematic and avoids all controversy. Every remark is made as an unqualified statement of fact. Whoever wishes to become familiar with Bergson's views may best do so by beginning with this work.

The main points number three: First, the development of a Berkeleyan doctrine of 'mental states,' and Malebranche's theory of the double nature of every experience, and the bearings of this hypothesis upon the problems of objectivity and subjectivity; secondly, Bergson's theory of the complex continuity of mental life; and lastly, as an outgrowth of this continuity, the hypothesis of modern humanism in its extreme form, practical interest being a constant and universal determinant of all experiences, including scientific and philosophical reasoning. A fourth point, almost co-important with these, is Bergson's well-known rejection of the ordinary scientific concept of causality as an implement for psychological interpretation. The explicative principle becomes that of 'immanent finality.'

The closeness with which M. Luquet has knit together these various points makes a brief criticism very unsatisfactory. The following details, however, seem to be those which are not only vital to his theory but also most widely open to challenges.

Malebranche's dictum is accepted: "It is one and the same thing

for the mind to experience pain and to know that it experiences it" (p. 5). Whoever rejects this, may dispense at once with at least half of Bergson's theory, inasmuch as its doctrine of continuity involves acceptance of the unbroken interpenetration of all phases of mental activity. Wherever there is sensation, there too are feeling, attention, effort, selection, perception, conception, and so on. No one phase is possible without all others; hence to experience something and never to know of this experience is impossible. It is a pity that M. Luquet did not break his rule against controversy at this point by discussing the objection that this hypothesis involves an infinite regress at every moment of experience. For surely this difficulty in Malebranche's doctrine is known to many undergraduates.

The most interesting difficulties arise in the theory of continuity. The concept of continuity here given is extremely complex, involving temporal and causal continuity, and also the unbroken activity of all mental functions. The temporal continuity has two phases: First, every moment of consciousness sums up and contains all previous ones (p. 8); and secondly, there is no break within the conscious stream (p. 9). The functional continuity likewise shows two aspects: First, each function is temporally continuous; and secondly, each depend upon the coöperation and coexistence of all others. In describing these aspects, however, the author repeatedly goes beyond available facts and even beyond probabilities. For instance, he regards Janet's discoveries concerning multiple personality in cases of hysterical anæsthesia as evidence in favor of the general hypothesis that "no mental state can exist without converging toward some point toward which all other states converge" (p. 12). Every case of memory lapse, on Luquet's theory, would have to be only 'apparent.' One might ask here what the difference is between appearance and reality in such an instance. Even more, no part of the cortex could be removed without either killing the individual or else transferring all the functions of the removed part to some other parts of the organism. How do facts square with this implication?

A curious conflict appears between the theory of structural continuity and that of the noetic nature of every experience, when M. Luquet agrees with Leibniz in saying that a state of consciousness is infinitely complex (p. 13). How can this be so, without one's being aware of that infinity in the moment itself? Has not M. Luquet confused the inner structure of a moment with the various bearings, causal and otherwise, of the moment? His distinction between the 'actually present' and 'the result or residue of past experiences' (p.

20) does not touch the point, but rather admits unwittingly the impossibility of Malebranche's theory.

The conventional description of perception is given, however (pp. 21 ff.), without any apparent feeling that it is inconsistent with the previously and subsequently advocated hypothesis of continuity. We are told that "it is a basic error of mind to regard as immediate something that is the result of a large previous elaboration" (*ibid.*). How previous elaboration prevents a quale from being immediately given is something the reviewer cannot grasp; one might as well say that no experience is immediate, for even the most primitive sensation has suffered much previous elaboration. Here, as elsewhere in the treatise, M. Luquet suffers through failure to distinguish intentional meaning from unintentional quales. He is unable to reconcile with his own doctrine of immediacy and continuity his other belief that the past is actually present in the 'specious present.'

Nowhere, however, do the imperfections of Bergson's theory of continuity show forth more clearly than in M. Luquet's discussion of the nature of identity. There being no real identical occurrence of *total* states of consciousness (p. 68), and the character of each phase in a total state depending upon that of the totality, it follows logically enough that "we never think twice absolutely the same thing" (p. 72). "We *imagine* that the intentional object of discourse is not the total content of consciousness but only one important part" (p. 71). It is needless to enlarge here upon the errors of introspection and description that make such statements possible. In a work dedicated to undergraduates, there ought to be some adequate description of the nature of logical (intentional) identity, in order to save the learners from the slough of sophistical subjectivism into which the above misleading statements drive them. Were it not for the lack of clarity on this fundamental point, the sections on judgment (pp. 177-185) might have been admirable. But M. Luquet does not wish to avoid subjectivism, as most American humanists do.

The most deeply rooted error in M. Luquet's Bergsonism appears simultaneously in the theory of identity and in the theory of the pragmatic determination of consciousness. In the former instance, the error consists in the assumption that objects can be identically known only when the total empirical states in which they appear are identical. In this assumption lurks the general one that variation of one element in a complex necessarily alters all relations between all other elements in that complex. To uphold this view, it becomes imperative to deny that the ordinary logical object is also a psychical one (pp. 229 ff.),

and this denial in turn ends in calling identity and all developments thereof (*e. g.*, objectivity) out and out illusions. The nature of a mathematical problem differs with every change in the thinker's feelings, sensations, motor reactions, etc. (*ibid.*). Thus logic becomes a branch of psychology, strictly speaking. On the other hand, the adopted theory of continuity forces acceptance of the extremest breed of subjective humanism, inasmuch as desire (involving foresight) and individual adaptation are constant and universal determinants of all other mental functions (pp. 284 ff.). "The existence and the character of the ideas and principles of reasoning may be explained by the nature of human needs" (*ibid.*). With this the entire humanistic philosophy in its most acute phase is implied.

The first mentioned phase of this error appears to be logically developed out of the assumed introspective facts; but this second phase flatly contradicts one of M. Luquet's hypotheses, to wit, the one which asserts the complete *mutual* interpenetration and interdependence of all mental functions. The fatal weakness of his theory of 'immanent finality' lies in disregarding this supposed fact, out of which the theory itself has been evolved. If selection is not a distinct mental function, but only an abstract poetic name for a class of phenomena, then what sense is there in making it the determining force in mental life? If, on the other hand, selection is a distinct function, then it must itself be determined by all other mental functions, if Bergson's theory of continuity be accepted. And when M. Luquet says that "distinguishing differences and perceiving similarities are a necessity of practice" (p. 287) and have been developed for this reason, the consistent reader would reply that practice itself is likewise made necessary by the fact that we do distinguish objects and do have different feelings toward different things. On the author's own assumptions, practical interests cannot possibly be construed as the end (temporal or final) of mental life, but must be viewed as an integral, dependent phase of life; not a determinant of the whole process, but merely a transformer within the process.

The extreme interpretation of mental continuity is surely the source of M. Luquet's difficulties. In a laudable desire to rid the undergraduate mind of all notions of 'faculty psychology,' the author has drawn the long bow to the breaking point; but the crack is unfortunately heard clearly only in the field of logic. From the pedagogical standpoint, it is a pity that the author did not devote a chapter to the psychology of logical implication. Had he done so, either his book would have been written differently or else its readers would be enabled to judge its merits and demerits more easily than they now can.

Bergson's 'closed curve' theory of psychic causation is stated so briefly (p. 282) as to make it ambiguous if not unintelligible. M. Luquet has not borne in mind here that he means two wholly different things by continuity; when he declares that in mental processes the effect of a given cause becomes, after certain intermediary steps, the cause of its own cause, M. Luquet seems to think that this amounts to a proof that "in mental states there are only differences in degree of development, not in kind" (*ibid.*), and also that this precludes causal relations in the ordinary sense of determinate temporal relations. The implication is far from obvious. Everything here said of psychic causality would usually hold true of ordinary physical causality. M. Luquet has hardly been just either to Bergson or to the undergraduate reader.

The clarity and orderliness of M. Luquet's treatise make it admirably fitted for use as a basis of discussion and topic writing in advanced courses in psychology and philosophy. The reader can scarcely ever misconstrue the author's meaning, while the elaborate outline of the chapters and the form of presentation make the structure and trend of the whole theory exceedingly clear. The book is perhaps the best statement of humanistic psychology and modernized Berkeleyanism that has yet appeared.

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NEW YORK CITY.

NOTICES OF NEW BOOKS.

Les principes des mathématiques : Avec un appendice sur la philosophie des mathématiques de Kant. Par LOUIS COUTURAT. Paris, Félix Alcan, 1905. — pp. viii, 311.

In view of the keen interest in the logic of mathematics which has recently been aroused among English and American philosophers, this little volume should meet with a very appreciative reception. The first words of its preface disclaim all pretence to originality. Its object is simply to bring together in convenient compass the essential part of what has been accomplished by the more important recent writers in this field. Especial attention is given to the views of Mr. B. Russell, with which the author is in perfect sympathy. The central theme is the presentation of mathematics as a province of logic, — the demonstration, not only that the forms of mathematical proof can be brought into systematic relation with those of the syllogism, but that the fundamental conceptions of mathematics are all implied in the postulates of formal logic.

M. Couturat has executed his task in a manner which could hardly be improved. The mastery of expository style, which was revealed in his great work on Leibniz, is undiminished here. In six brief chapters a *précis* is given of symbolic logic, of the theory of number, order, the continuum, and magnitude, and of the foundations of geometry. Despite the necessary brevity, no pains are spared to make the whole account thoroughly intelligible to readers who are unpracticed in the use of symbolic formulas. Appeal is thus made to a large philosophical public, who might otherwise feel themselves excluded.

On the other hand, very little effort is made to gain the sympathy of those who are prejudiced against symbolic logic ; and the few occasions which the author takes to impress its advantages are not well chosen. Thus, for example, he cites (p. 36), as a mode of reasoning unknown to the classical logic, and explicable only by means of symbolic logic, the following : " If the negative of a proposition implies the proposition itself, this latter is true," — a simple case of the *reductio ad absurdum*. It ought not to have been forgotten that the advantages of algebraic symbolism consist wholly in its brevity and clearness, which are such as to enable one not only to draw deductive inferences with quasi-mechanical precision, but also (and more importantly) to detect the introduction of any unwarranted premise. Surely these are advantages of sufficient weight to justify its use, without claiming for it a radical extension of logical principles.

Furthermore, M. Couturat (following Mr. Russell) needlessly compromises his cause by the admission that the two fundamental principles of deductive procedure (the so-called 'principle of deduction' and 'principle

of substitution') "mark the limits of symbolism" (p. 12). "It is evidently necessary," he says, "to define verbally the first symbols and the first formulas . . . [These two principles] cannot be expressed in symbols, just because they are the foundation of the use of symbols." As well say that they cannot be expressed in language, because they are the foundation of the logical use of words. Moreover, a definition of symbols in terms of undefined words adds nothing to their force. It simply imports into the symbols that very haziness of signification, which it is the proper function of symbols to disperse. They must be defined, — as M. Couturat elsewhere (p. 41) clearly shows, — by means of systems of postulates. The source of his misunderstanding is not far to seek. He has momentarily forgotten that logic is simply an analytical, not a constructive science. In developing the system of logic, we must make actual employment of the whole of that system which we are about to describe; and no less than this is implied in the two principles above mentioned. But this shortcoming, if it be such, attaches not simply to symbolic logic, but to every other species of logic as well. It is not fair to call it a "limit of symbolism."

Of the philosophy which underlies this work, one may say without great injustice that it is essentially a seventeenth century rationalism; and the critical reader who chances to have been carried away by more recent tendencies of thought may regard this aspect of the work as detracting from its value. This would probably be a mistake. The detailed researches which are here recorded are well worth appreciation in terms of any philosophy. It will not do to ignore them on the ground of a wholesale objection to their fundamental conceptions. And the hypothesis of a 'rational' system of the deductive sciences is at least convenient as a temporary basis for the present investigation.

As regards the criticism of Kant contained in the appendix, a less favorable judgment must be given. The author's logical machinery is fatally inadequate to his task. In detail, the criticism is irreproachably correct; but it leaves the fundamental issues where it found them. For, after all, the result of the whole argument is but to add another leading question to the Kantian *Prolegomena*: How is pure logic possible? The reduction of formal logic to a system of independent postulates simply throws into relief the fact that these postulates, at least, are *synthetic propositions*, which a Kant might well assume to be *a priori*, and into whose justification he would then certainly proceed to inquire. Perhaps, however, for this very reason, the essay should have an unusual interest for the appreciative student of Kant.

THEODORE DE LAGUNA.

THE UNIVERSITY OF MICHIGAN.

Lineamenti di una logica come scienza del concetto puro. Memoria letta all' Accademia Pontaniana dal socio BENEDETTO CROCE. Napoli, 1905. — pp. 140.

This book is a criticism of traditional doctrines in the field of logical theory, some of which are modified and others rejected. It is written in

an independent spirit and in an excellent style, and deserves to be carefully studied by specialists in logic.

The problem of logic is to inquire: In what consists so-called logical, intellectual, or rational thought? What is its nature and mode of operation? But it is a speculative and not a psychological science. It is concerned, moreover, with the 'form' and not with the 'matter' of thought. Propositions in medicine differ in matter from propositions in law; but in form they are the same. Hence to say that logic deals only with the 'form' of thought is the same as to say it deals with what is universal. But it does not imply, as is sometimes assumed, that 'a logical affirmation may be formally true and materially false; for, in the concrete, its form is inseparable from its matter.' The logic that would separate form and matter, the author designates as 'formalistic,' to distinguish it from the 'formal' logic which he undertakes to expound.

Distinctively logical thought presupposes nothing more than representation; in other words, representation constitutes the only antecedent condition of thought in the logical sense of the term. Mere representation, therefore, in its immediateness, as not yet concept or 'apperceived' under any of the intellectual categories, is the datum of logic. In this respect, those are right who consider the 'historical' reality of a fact as a matter of indifference for logic; and here is found, therefore, the partial truth of the assertion that thoughts may be logically true and materially false. That mere representation is the presupposition, and hence the point of departure for logical science, is in accord with the claim that language is this datum, provided language be understood in the broadest sense, not simply as verbal expression, but likewise as painting, sculpture, and music; and also as not mere outward signs of any sort, but as 'internal' language as well; and provided, furthermore, that language be not confounded with grammar. For language, in this broad sense, including every form of 'expression,' is identified by the author with representation (*rappresentazione*).

The fundamental thesis of the book is that "the concept is the first and only logical form." Logic as a science, therefore, has for its subject-matter nothing but conception, or concepts. Indeed, it has not to do with all kinds of concepts even. Strictly speaking, it is the science only of 'pure' concepts, as distinguished from impure or pseudo-concepts. Pseudo-concepts are "representations which are forced to function as concepts," such as images of various kinds (the natural sciences operate chiefly with pseudo-concepts), but pure concepts are abstract thoughts, non-picturable universals, which, just because they are general and not individual, cannot, in any exact sense of the term, be represented or expressed by imagery. Indeed, it is an error to suppose that the pure concept requires an image at all, even as a mere symbol or vehicle. The mathematician who thinks the concept 'three' or the concept 'triangle', and the philosopher who thinks the concept 'virtue', are under no absolute necessity of having before the mind a hand with three fingers spread, a blackboard with a triangle chalked upon it, or Curtius leaping into the chasm, as the case may be.

The question whether judgment or concept is the logical *prius* must be answered with reference to the various kinds of judgments. Aesthetic judgments do not fall within the sphere of logic at all; neither do commands and questions. The present investigation, therefore, must ignore these altogether. In the case of the union of a universal predicate with a singular subject, the concept (universal) is evidently presupposed. In fact, this judgment could be shown to be nothing else than the complete thought of the universal. If judgment as exhibited in definition be regarded as the primitive logical fact, we may observe that definition, understood, not in its conventional form as designation of genus and difference, but in its true thought character, is identical with conception.

As the logical judgment is thus reduced to "the concept itself in its concreteness," so the syllogism is represented as nothing else than the thought of a concept. When conceived in its true form, as it appears in the dialectic of thought, the whole of syllogism consists in discovering the middle term (*venatio medii*); "and the middle term, relation between two concepts, is nothing but the thought of a new concept." What is judgment, if not the expression of universals and relations between universals, which relations are in turn also universals? And what is reasoning, if not the expression of these same mental constructions? Take, for example, the syllogism: Human beings are mortal; children are human beings; therefore, children are mortal. In this "there is no other logical content than the systematic construction of the concept 'mortal,' which includes human beings, which in turn includes children."

The author's estimate of what he calls the 'Aristotelian,' 'scholastic,' 'syllogistic,' 'verbalistic,' or 'formalistic' logic, is reflected in the following expressions: "It is to be hoped that the time is not distant when this logic will be placed in the museum of philosophical teratology. But at present it is still so much alive, and so perniciously alive, that we are compelled to examine the monster somewhat, in order to point out to the inattentive its misshapen members that inclose its '*anima sciocca*' (insipid soul) — like Dante's Nembrotto."

E. E. POWELL.

MIAMI UNIVERSITY.

Spinoza. Par LÉON BRUNSCHVIG. Deuxième édition, revue et augmentée. Paris, Félix Alcan, 1906. — pp. ii, 235.

For those desiring a comparatively brief commentary on Spinoza's thought, it is doubtful whether any work can be found more helpful than this. It is clear in exposition, keen in analysis, and sympathetic in tone. The author is occupied rather with elucidating the philosopher's meaning and showing how the different parts of his system are interrelated, than with criticising the basic assumptions on which his theory rests or weighing the value of the outcome of his teaching; but from an interpretation so thorough, and for the most part so illuminative, the reader can readily obtain the necessary help towards forming for himself a fair judgment of

the merits of Spinozism, and is put on his guard against the crude distortions and self-made difficulties by which so many writers have added to the obscurity of the philosophy they have undertaken to explain.

M. Brunschvicg has correctly perceived that the root-idea of that philosophy is this, that at bottom rational thought and reality are one, and that the distinction between them is relative to the point of view. "We must not regard the synthesis as Spinoza has conceived it, as merely a proceeding which the mind employs to reach the truth, as a means toward an end; the synthesis is the truth itself, whose different moments constitute so many distinct truths. In a word, the Spinozistic synthesis is a concrete synthesis. It goes from being to being without ever permitting abstractions or universals to be interpolated in the series of real beings." Hence his philosophy is a "perfect unity": considered in its method, it is called logic; considered in its first principle, it is called metaphysics; considered in its end, it is called ethics. In this respect as in many others, Spinoza anticipates Hegel, and the failure to recognize in his system the coincidence of thought, taken *per se*, with reality has led to many misunderstandings on the part of critics who have surveyed his system from the standpoint of dualism.

Holding fast to this essential unity on which Spinozism is built, M. Brunschvicg does not treat the ethical idealism of Part V of the *Ethics* as something inconsistent with the scientific analysis of the earlier parts, where the parallelism between the physical and the psychical is so vigorously maintained; for this phenomenalism, as we may call it, is seen to be a stage in the development of thought, a necessary moment in the dialectic process of which "the third kind of knowledge," the adequate and direct realization of reality itself, is the result. Of special interest is the exposition of the Spinozistic conceptions of eternity and eternal life. The latter phrase is shown to mean, for Spinoza, neither the unlimited continuation of the empirical self-conscious existence, nor the mere indestructibility of a reason which is common to all individuals, but rather the independence of all time conditions of that 'essence' of each man which is constitutive of his particular soul and which is a real and permanent idea in the divine mind. Whether this doctrine is in itself a tenable one, and whether it is capable of being maintained in connection with other doctrines taught by Spinoza, are questions worthy of careful and thorough investigation; but M. Brunschvicg at least does much toward making the conception intelligible. The final chapter in the book shows how excellent an illustration is furnished by Spinoza's life and character of the practical effects of his metaphysical and ethical tenets. The whole work may be strongly recommended to such students of the great Jewish philosopher as are still unacquainted with it.

E. RITCHIE.

Dialogues concerning Natural Religion. By DAVID HUME. Reprinted with an Introduction by BRUCE M'EWEN. Edinburgh & London, William Blackwood and Sons, 1907. — pp. cviii, 191.

This attractive volume, printed in excellently clear type, will serve a useful purpose in helping to call attention to what is doubtless the most serious and thorough-going examination of the arguments for 'Natural Religion' that has ever been written in English. As is well known, these *Dialogues*, although written many years previously and frequently revised, were not published until 1779, three years after Hume's death. Whatever may have been Hume's motive in refusing to publish this work during his lifetime, "so much is certain," to quote Dr. M'Ewen's words, "that by retaining the book unpublished he had opportunity of bringing it to a higher pitch of perfection, and that, accordingly, its sentiments may safely be regarded as the mature expression of his religious and theological opinions in strict accordance with his empirical philosophy" (p. x).

Dr. M'Ewen's Introduction gives a clear and satisfactory analysis of the course of the argument as carried on by Demea, Cleanthes, and Philo, the representatives respectively of Orthodoxy, Deism, and Scepticism. The difficult problem has always been to determine from the *Dialogues* Hume's own standpoint. Dr. M'Ewen protests against the current identification of Hume with Philo, the sceptic, and lays considerable stress on the words of Pamphilus with which the work ends: "I confess that upon a serious review of the whole I cannot but think that Philo's principles are more probable than Demea's; but that those of Cleanthes approach still nearer to the truth." Moreover, he points out that even Philo admits that the existence of God is "plainly ascertained by reason," and, though he speaks with some caution, he is inclined to hold that the *Dialogues* indicate some modification of Hume's earlier position, "some slackening of his extreme scepticism." The following passage, perhaps, goes farthest in ascribing a positive tendency to Hume's thought: "Not concerned with dogmatizing about the many and mysterious attributes of God or the incomprehensible decrees of his Providence, . . . religion is for Hume, in the first place, a simple faith and a present rule of conduct in the present life. It has a certain limited knowledge of God derived by reason working in the realm of experience. No doubts can take that much away; but out beyond there always lies for Hume, when he goes deepest in his search for truth, the realm of faith and revelation. The last word of the *Dialogues* is a cry for it,—the only refuge for human reason from its ignorance and imperfections" (p. cvii).

With the exception of the first sentence quoted, this statement seems to me entirely unwarranted. Whatever Hume's personal faith and convictions may have been—and this we have almost no means of determining—the *Dialogues* show clearly that, when he went "deepest in his search for truth," he still was unable to find any rational and speculative grounds for the conclusions of 'Natural Religion.' The conclusion which he expressed

so clearly at the end of the *Natural History of Religion* (1757) is unmistakably the outcome of the argument of the *Dialogues*:—"The whole is a riddle, an enigma, an inexplicable mystery. Doubt, uncertainty, suspense of judgment, appear the only result of our most accurate scrutiny concerning this subject." One cannot but feel that Dr. M'Ewen's discovery of something more than agnosticism in Hume rests to some extent on his failure to keep clearly distinct Hume's supposed personal convictions and the doctrines for which he was able to discover rational grounds. Again, it should be recognized, I think, that many of the statements and admissions which Dr. M'Ewen quotes by no means follow from the argument of the *Dialogues*, but are evidently introduced only with some dramatic purpose. And it should be remembered that Philo's strictures on dogmatic atheism are also perfectly consistent with Hume's scepticism, whose final word is "doubt, uncertainty, suspense of judgment."

An interesting fact bearing on Hume's influence on Kant which has not, I think, been much discussed, is mentioned in the Introduction. According to Dr. M'Ewen, Kant had in his hands in 1780, before beginning to write the *Critique of Pure Reason*, a manuscript translation of the *Dialogues*, which was never published, by J. A. Hamann. That there is some historical connection between Hume's criticism of 'Natural Religion' and Kant's famous critique of 'Rational Theology' would seem to be well established.

J. E. C.

Spinoza and Religion. By ELMER ELLSWORTH POWELL. Chicago, The Open Court Publishing Company; London, Kegan Paul, Trench, Trübner, and Co., 1906. — pp. xiv, 344.

The aim of this book is to prove that Spinoza was irreligious and his philosophy anti-religious. It is unfortunate that, in maintaining this thesis, the author did not avoid such aspersion on Spinoza's character and such misrepresentations of the facts of his life as indicate a lack of that spirit of impartiality which is the prime requisite in all critical investigations. Nor does Dr. Powell appear to have studied the philosopher's writings with enough thoroughness to enable him to grasp the true significance of his teaching. It is, of course, most obviously true that the word 'God' did not for Spinoza possess the same content that it has for the average religious Christian, but it is equally certain that it embraced for him the highest conception that the mind of man can reach, the source of all activity, and the supreme object of human love. For Dr. Powell, however, there can be no religion which is not directed toward a 'personal' power who can give his worshippers something in return. "The truth is," we are told, that religion seeks primarily, not "reason and principle," "unity," "the universal," etc., as such, but "help, protection, security, peace, fellowship, and other practical goods." Again, he says that in order to show that Spinoza had any interest in religion, "it would be necessary to point out in the peculiarities of his thinking a subjective preference for a world controlled by a

personal power." It is certainly true that this was not one of the "peculiarities of his thinking," and perhaps it was hardly worth while to write a book to demonstrate that Spinoza's doctrine does not coincide with religion conceived in this way.

E. RITCHIE.

Outline of the Vedanta System of Philosophy according to Shankara. By PAUL DEUSSEN. Translated by J. H. WOODS and C. B. RUNKLE. New York, The Grafton Press, 1906. — pp. viii, 45.

Professor Deussen of Kiel is well known as a student and expounder of Indian philosophy. The present brief sketch of Shankara's doctrine was published in 1883 as a part of the author's *Das System des Vedanta*. He has, however, revised and made some additions to the outline as it is here presented in an English translation.

The work is arranged in forty-four numbered sections, each of which states briefly but clearly the doctrine with regard to some definite topic. The six chapters, each of which embraces from four to ten sections, have the following titles: I, Introduction; II, Theology; III, Cosmology; IV, Psychology; V, Migration of the Soul; VI, Emancipation.

J. E. C.

Le sens de l'art, sa nature, son rôle, sa valeur. By PAUL GAULTIER. Paris, Hachette & Co., 1907. — pp. xxxii, 269.

Because of the long continued ascendancy of France in the practice of the fine arts, one is accustomed to look instinctively to the French for expert criticism, if not for the profounder philosophy, of art. The writings of Frenchmen in this field, therefore, come to us with a certain bias in their favor, and in the present case the bias is justified. The volume of Gaultier undertakes within a small compass to analyze and define beauty and its relations to art, to describe the function of art in society, to determine the relation of art to morality, and to formulate the principles of art criticism. An introduction to the book is written by the well-known philosopher Boutroux, and sixteen plates furnish illustrations of the meaning of the text. The plates are half-tone reproductions, made in the main from photographs of notable examples of painting, sculpture, and architecture. They illustrate such ideas as the following: The beauty of art does not consist in the perfection of form (Canova's *Perseus* and Legros's *Æsop*); the beauty of art is independent of the beauty of subject (works of Goya, Ligier-Richier, and Bosch, which have the ugly or monstrous for subjects); the evolution of expression in the history of sculpture; the historical value of style is independent of the historical interest of the subject; style as the exponent of the personality of the artist; style as the revealer of environment, epoch, race, etc.

In the first division of the work, which is the only division that is primarily concerned with the psychology and philosophy of art, the main theses are that beauty is æsthetic emotion objectified, and that the form of its

objectification is art. The work of art is æsthetic emotion crystallized or made incarnate by means of sounds, lines, or colors. The meaning of art is interpreted, therefore, from an entirely subjective point of view, and all metaphysical interpretations are rejected in favor of the psychological. Beauty is not an external factum, and art is, therefore, neither the imitation of nature (naturalism) nor the adumbration of a supersensible entity (transcendentalism). In the light of subjectivism or the psychology of æsthetic emotion, Gaultier explains the varying characteristics of art as practiced by different persons, ages, and nationalities.

W. A. H.

The following books also have been received:

- Structure and Growth of the Mind.* By W. MITCHELL. London, Macmillan & Co., 1907. — pp. xxxv, 512. \$2.60.
- Rudolf Eucken's Philosophy of Life.* By W. R. BOYCE GIBSON. London, Adam & Charles Black, 1906. — pp. viii, 168.
- The Study of Nature and the Vision of God: With Other Essays in Philosophy.* By GEORGE JOHN BLEWETT. Toronto, William Briggs, 1907. — pp. ix, 358.
- Studies in Humanism.* By F. C. S. SCHILLER. London, Macmillan & Co., 1907. — xvii, 492.
- The Psychology of Religious Belief.* By JAMES BISSETT PRATT. New York, The Macmillan Co., 1907. — xii, 327.
- Hypnotism, or Suggestion and Psychotherapy.* By AUGUST FOREL. Translated from the fifth German edition by H. W. ARMIT. New York & London, Rebman Company, 1906. — pp. xii, 370. 7s. 6d.
- Six Radical Thinkers: Bentham, J. S. Mill, Cobden, Carlyle, Mazzini, T. H. Green.* By JOHN MACCUNN. London, Edward Arnold. Imported by Longmans, Green, & Co., 1907. — pp. 268.
- The Religious Conception of the World.* By ARTHUR KENYON ROGERS. New York, The Macmillan Co., 1907. — pp. 284.
- Some Problems of Existence.* By NORMAN PEARSON. London, Edward Arnold. Imported by Longmans, Green, & Co., 1907. — pp. vii, 168.
- Philosophical Problems in the Light of Vital Organization.* By EDMUND MONTGOMERY. New York and London, G. P. Putnam's Sons, 1907. — pp. 462.
- The World Machine: The First Phase of the Cosmic Mechanism.* By CARL SNYDER. New York, Bombay, and Calcutta, Longmans, Green, & Co., 1907. — pp. xvi, 488.
- Sex and Society: Studies in the Social Psychology of Sex.* By WILLIAM I. THOMAS. Chicago, The University of Chicago Press, 1907. — pp. vii, 325. \$1.50.

- Studies in German Romanticism.* Part I: Repetition of a Word as a Means of Suspense in the Drama under the Influence of Romanticism. By MARTIN SCHÜTZE. Chicago, The University of Chicago Press, 1907. — pp. 58.
- The Psychological Review Monograph Supplements, Vol. VIII, No. 1.* The Psychological Experiences connected with the Different Parts of Speech. By ELEANOR H. ROWLAND. Baltimore, The Review Publishing Co., January, 1907. — pp. 42.
- Monism? Thoughts Suggested by Professor Haeckel's Book, 'The Riddle of the Universe.'* By S. PH. MARCUS. Translated by R. W. FELKIN. London, Rebman Limited, 1907. — pp. viii, 144. 1s.
- The Divine Wisdom.* By JOHN COUTTS. London, National Hygienic Co., Ltd., 1907. — viii, 384. 6s.
- Lehrbuch der Geschichte der Philosophie.* Von WILHELM WINDELBAND. Vierte, durchgesehene Auflage, Tübingen, J. C. B. Mohr, 1907. — viii, 588.
- Arthur Schopenhauer: Seine wirklichen und vermeintlichen Krankheiten.* Von WILHELM EBSTEIN. Stuttgart, F. Enke, 1907. — pp. 39.
- La philosophie de M. Sully Prudhomme.* Par CAMILLE HÉMON. Paris, F. Alcan, 1907. — pp. xix, 464. 7 fr. 50.
- Le problème de la conscience.* Par D. DRAGHICESCO. Paris, F. Alcan, 1907. — pp. ix, 244. 3 fr. 75.
- La raison pure et les antinomies: Essai critique sur la philosophie kantienne.* Par F. EVELLIN. Paris, F. Alcan, 1907. — pp. iv, 316. 5 fr.
- Essai critique et théorique sur l'association en psychologie.* Par PAUL SOLLIER. Paris, F. Alcan, 1907. — pp. vii, 188. 2 fr. 50.
- De la croyance en Dieu.* Par CLODIUS PIAT. Paris, F. Alcan, 1907. — pp. vii, 286. 3 fr. 50.
- La vita e il pensiero di Roberto Ardigò.* Per GIOVANNI MARCHESINI. Milano, Ulrico Hoepli, 1907. — pp. xii, 388. L. 5.50.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de Mét.* = *Revue de Métaphysique*; *Rev. Neo-Sc.* = *Revue Neo-Scholastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia e Scienze Affini*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abt.: Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

LOGIC AND METAPHYSICS.

Über die Grenzen der naturwissenschaftlichen Begriffsbildung. MAX FRISCHEISEN-KÖHLER. *Ar. f. sys. Ph.*, XII, 2, pp. 225-266; 4, pp. 450-483.

I. These articles are devoted to a critical examination, from the logical point of view, of Rickert's *Die Grenzen der naturwissenschaftlichen Begriffsbildung* (1902), which, owing to its clearness and systematic character, holds a central place in recent discussions of the relations of the methods of history and of natural science. Rickert's starting-point, unlike that of other writers in this field, is not the psychological basis of the mental sciences, nor the difference in the subject-matter of the various branches of science, but the difference in their aims. History, as the science of the actual (*Wirklichkeitswissenschaft*), employs an entirely different method of forming concepts (*Begriffsbildung*) from that of the natural sciences (sciences of law) as set forth in the traditional logical doctrine of the concept. To overcome the immeasurable multiplicity of its data, natural science resorts to abstract, universal concepts and laws; in so doing, however, it loses its hold on concrete reality, whereas the concepts of history have always, according to Rickert, a concrete and individual content. But the validity of Rickert's account of the natural science concept is open to question. Scientific abstraction is not a generalization or simplification for its own sake, but an isolation or analysis of certain elements, without ignoring the rest. And while scientific laws are universal, embracing what is common to a whole class of objects, their necessity and validity can by no means be deduced from this fact. The modern view that the connection of cause and effect is constitutive for the whole of nature, and the laws to which this view has led, carry us far beyond the 'reference to the universal' which Rickert so strongly emphasizes. The ideal of a '*letzte Naturwissenschaft*' as a sort

of pure mechanics, deducing all laws from a single highest law and all 'things' from qualitatively and quantitatively simple and uniform elements, is not a satisfactory formulation of present scientific tendencies, nor is it implied in Rickert's premises. It does not apply to psychology, which constitutes a second 'ultimate natural science'; but if two, why not more? Rickert criticises as rationalistic the view that scientific concepts are more than abstractions; but his own ideal here suggests Spinozistic rationalism. In science the discovery of the actual structure of things is itself an end, not merely a means to abstract theoretical constructions; science aims not so much to *overcome* as to *understand* the manifold of empirical reality. The atoms of chemistry are not mere fictions, like mathematical points, incapable of being given in experience, but may be interpreted as the smallest particles of matter which science can reach, and hence as no less knowable in principle than stars or planets. And however abstract pure mechanics may become, it loses all extra-mathematical interest as soon as its relation to the actual world of experience is lost. Of course no part of reality can be *exhaustively* described in words and concepts; but this is as true in the historical as in the natural sciences. If the procedure of natural science is analysis and not mere abstraction, there is no evident reason why it cannot by synthesis return and deal with reality. By combining several concepts, even though each is by itself poorer than the given reality, we may approximate indefinitely to the concretely real. And the part that cannot be deduced, the connection of the various concepts, is precisely what we have before us as actually given. In astronomy we gain a knowledge of the laws that govern individual things, and are enabled to predict their movements. Nor is the case of astronomy exceptional; other sciences approximate in varying degrees to this predictive knowledge of individual phenomena. Every science of the real has its irrational given data; but this fact does not constitute a limitation of the natural-science method; in theory, at any rate, the science of the future will be able to determine from the state of the actual world at some one time all its past and future states. We cannot agree with Rickert, then, that empirical reality itself sets impassable limits to the natural-science *Begriffsbildung*.

II. In the second part of his book, Rickert treats of the formation of historical concepts, understanding by history all those disciplines which seek, not to set up universal concepts, but to deal with reality itself. The problem of history is to form concepts with an individual content. It does not, like natural science, resolve all perceptual elements into abstract concepts and laws, but must constantly appeal to the reader's imagination. For logic, however, according to Rickert, this perceptual side of the historical concept is of minor concern. But is not the perceptual side highly important in any sketch of a human character? And if so, can logic afford to neglect it? Again, even granting the correctness of Rickert's account of the natural-science method, need everything that is not natural science belong to history? In making relation to a value the principle of indi-

viduation, and hence of the formation of historical concepts, Rickert neglects those cases, *e. g.*, organisms, in which the individuality depends primarily on the form of the object, independently of any valuing subject. His formal, absolute values have the twofold function of determining which individuals or objects require historical treatment, and of selecting those characteristics of the chosen object which are essential to its individuality. But, in the first place, historical description must include other elements than those essential to the individuality of the object; it may even include most of the elements common to all objects of the same class, provided the scientific description of that class cannot be presupposed as familiar. If the fundamental structure and relations of a given object or person are to be described, elements must be taken into account which have no connection with absolute values. Secondly, even in determining which elements are important to the individuality of the object, value-relations play a very subordinate part. In the name of the object are implied those characteristics which it shares with others of its class; and by indicating further those characteristics wherein it differs from the normal type of the species, the historian may characterize its individuality as completely as his purpose requires. Where a series of objects is to be described, their unity may consist in their relation to an idea; this relation to an idea is not, however, like Rickert's value-relation, dependent on subjective feelings. If we call the idea a guiding historical concept (*historischer Prinzipalbegriff*), the description consists in enriching the content of a general concept, *e. g.*, man, by those characteristics which belong also to this more specific concept, *e. g.*, African explorers. Permanent and objective culture-systems, such as religion, art, science, etc., are especially suited to serve as guiding historical concepts; but the purposes or 'values' involved in them are definite and concrete, not formal, and are found in the subject-matter of history itself, not read into it by the historian. In the physical world we find similar objective guiding concepts in the form of regressive causal series. For Rickert the historian's procedure is teleological; but, according to his critic, values in Rickert's sense are irrelevant. Thirdly, even in determining which individuals require historical treatment, the historian depends not on value-relations, but on objective culture-systems. His initial choice of a particular subject-matter is influenced, like that of the scientist in general, by personal (subjective) considerations; but after his choice is once made, he must describe his subject-matter, its development, its causes, and its relations to the culture-system to which it belongs, all in accordance with the perfectly objective principles of historical method. The historical connection or whole does not depend on ideal relations to absolute values, but is given by the inexhaustibly rich historical process itself, in the concrete connections of the different culture-systems.

F. D. MITCHELL.

Kant und die gegenwärtige Aufgabe der Logik. FRITZ MEDICUS. Kant-Studien, XII, 1, pp. 50-74.

Kant, regarding logic as a purely formal science, saw no change therein since Aristotle, and had no conception of the problems which it advances to-day. His *Critique of Pure Reason* is based on the proposition that the principles of formal logic are self-evident and form the basis of epistemological research. So he deduces his categories and arrives at his doctrine of the *Ding-an-sich* with its necessary dualism of consciousness and reality. With Fichte and Hegel, both formal logic and the *Ding-an-sich* disappear, and we have instead dialectical development. Then the relation of the categories to one another, to the principles of Aristotelian logic, to Space and Time, to the dialectical problems of Kant, in short, to the whole theoretical philosophy, appears at once as one immense problem demanding an architectonic solution. This Hegel's *Logic* claims to be, as it broadens the sphere of reason and advances by dialectic to an all-comprehensive system. Knowledge can never be complete; we proceed necessarily onward according to an endless process of development. Hegel's principal doctrine is the self-destruction of the finite categories and their passage into their opposite. This we grant but only within limitations. Hegel's method does not satisfy us completely to-day. Where do we now stand? Truth is not found in the object, but in its meaning for consciousness. This is the first principle of logic, the meaning of the principle of identity, and upon it our philosophy is built. Belief in the truth is belief in the freedom of the theoretical 'I.' With this we judge finally every issue. With the positing of a 'Non-I' comes the principle of contradiction, and then by abstraction from teleology, we reach the third principle, that of excluded middle. The great problem left to us is to find a principle upon which to establish the Ego in its relation to the finite, and this we do find in the synthetical unity of consciousness. Our conception of the problem of the categories, accordingly, is not entirely different from that of Kant, although not identical with his. But his philosophy must 'die the death of the just,' when we realize that the problem of logic to-day is to explain the system of necessary thought forms by the idea of knowing.

MARGARET K. STRONG.

PSYCHOLOGY

Über Gefühlsempfindungen. C. STUMPF. Z. f. Psych., XLIV, 1 and 2, pp. 1-49.

The sensory feelings (*sinnliche Gefühle*) here under investigation comprise physical pain, physical pleasure, and the pleasantness and unpleasantness attaching to sensations from the higher senses. These sensory feelings may be regarded as attributes or aspects of sensation, as constitutive of a distinct order of elements, or as veritable sensations distinguishable by minor peculiarities only from other classes of sensations. The first

position is manifestly untenable. An attribute which itself possesses attributes, and which may fall below the limen while the sensation to which it attaches remains supraliminal, is a dubious concept. As to the two remaining positions, the burden of proof must rest, according to the law of parsimony, with the former. Three considerations may be urged in its favor: (1) the relationship existing between sensory feeling and emotion; (2) the subjectivity of feeling as over against sensation; (3) the lack of spatial localization or extensity in feeling. None of these criteria proves valid; hence the view that sensory feelings represent a special class of sensations may be adopted. Of these sensory feelings, or affective sensations as they will henceforth be termed, cutaneous pain has been the first to yield to experimental investigation. Through the efforts of Goldscheider and von Frey, the isolation of pain and the demonstration of its purely sensational character have been effected. In the description of pain as a sensation quality, its attributes are exhausted. Pain is intrinsically painful, and all apparent deviations from this rule are cases of mixed pleasure and pain sensations, of dubious borderline phenomena,—*e. g.*, the painless prick,—or of predominating higher states (*Affekte*). A dichotomy similar to that of the temperature sense occurs in the sense of feeling. Over against the sensations of pain stand the sensations of pleasure. These sensations of pleasure and of pain may leave behind them memory images, as is made evident by the occurrence of hallucinations. Lack of ease of reproduction, while in itself prejudicial to the purely sensational character of feeling, is less to be urged against these peripherally conditioned affective sensations (pleasure and pain) than against certain others centrally conditioned and grouped under the term 'affective tone.' This so-called 'affective tone' (pleasant or unpleasant) of the special sensations represents the second great class of affective sensations. While constituting an addendum to the sensation proper, it is an addendum which is in itself merely sensational, a centrally conditioned *Mitempfindung*, as it were. The difficulties in the way of dissociated reproduction are hardly more considerable here than in the case of certain fusions in the sphere of taste, smell, etc. Unmotivated reproduction is of course out of the question, but isolated representation is not impossible. The visual representation of a musical sequence is sufficiently independent of all acoustic imagery to give rise to the appropriate tonal feeling. The feeling transference here involved is obviously a case of abbreviated reproduction or association, hence a further point in favor of the sensational character of affective tone. The postulate of the dissimilarity of the affective quality attaching to different tones and colors contributes to the elucidation of the difficulties in the way of reproduction from a merely verbal clue. Finally, the peculiarities of reproduction are indicative less of the heterogeneous character of the affective elements, than of a special physiological condition at the centre. Hence no objection against the classification of all modes of sensory feeling as veritable sensations (*Sinnesempfindungen*) obtains. The advantages accruing from

the reception of feeling elements into the already exploited sphere of sensation are manifest. The accumulated observations on the behavior of sensations and memory images become at once available in solution of the problems of analgesia, indifferent sensations, shifting of feeling values, irregularities in correlation of sensation-quality and affective tone, individual and racial peculiarities, and genetic questions.

ELSIE MURRAY.

The Psychology of Organic Movement. I. M. BENTLEY. Am. J. Ps., XVII, 3, pp. 293-305.

In any inquiry into the significance of the relation between mind and movement, various psychological problems are involved. Corresponding to differences in judgment regarding the origin and nature of the movements, general motor interpretations of various kinds have arisen. Two types of motor theory are noticeable: (1) those referring the character of the total consciousness to the interplay of motor mechanism, *e. g.*, Ribot, and the central psychophysical theories; (2) those regarding the total consciousness as a primary factor in the motor adjustments of the organism. Among the many activity psychologies, the peculiarity of this one is its 'biologization' of consciousness. We meet again in 'reactionism' the use of organic movement, which was prominent in Bain and Ribot, not as specific content, but only as function. Another recent motor theory is that of Judd. This theory minimizes the part that kinæsthetic sensations and images play in consciousness, and exalts the organizing function of a centrally situated 'motor' region. Whether interpreted as a general theory of conscious synthesis or as a special theory of space perception, this makes the rôle of organic movement less fundamental to consciousness than in Ribot and Münsterberg. For functional psychology the motor problem has peculiar interest. The reactionist brings in his doctrine of attention, and this becomes the cardinal activity that constitutes both 'stimulus' and 'response'; but, in spite of the statements of Dewey and others, this is unintelligible to the writer. He closes by stating that no single 'motor problem' presses now for solution, but a variety of problems calling for discrimination of facts and theories.

MARGARET K. STRONG.

Des éléments affectifs de la conception. C. BOS. Rev. Ph., XXXI, 11, pp. 467-481.

Consciousness presents two aspects, the representative and the affective. This article aims to explain by this dualism the controversy between the realists and the nominalists, and to show that their contradictory affirmations are due to the fact that mental processes occur differently in different individuals according to their temperament. The nominalist knows an object according to the intellectual or scientific mode, the realist according to the affective mode. Among the Greeks the opposition of nominalism

and realism find its expression in Protagoras, Antisthenes, and the Sophists, on the one hand, and in Plato and Plotinus, on the other, — in one case, in men of the cold, intellectual type, in the other, in men of a more emotional type. Nominalism, moreover, flourished in England among a people proverbially unemotional. A conciliation of these theories is found in the conceptualism of Abelard. To investigate affective images is highly difficult on account of their indefinite origin, their vague, indeterminate nature, and the conditions under which the experiments must be made. Affective images, in mental life, act as a cement or an inter-representative fluid. An analogous phenomenon is seen in colored audition. Memory, like perception, may end in a transposition which sometimes leads us to a new image; the affective equivalents of the first visual images often are effaced yet survive translated into affective images. The affective element is not a concomitant but a constituting factor in the formation of the concept. The concept obtained by the affective mode of knowledge will be qualitatively different from the concept obtained by the pure, intellectual process. The consequence of this view is the opening up of a vast field for metaphysical speculation in regard to the nature of being. Interpretation according to the affective mode may some day cast a new light on systems of philosophy as yet imperfectly understood and unjustly depreciated.

FRANK B. CRANDALL.

HISTORY OF PHILOSOPHY.

Zum Verständnis von Spinozas Ethik. W. M. FRANKL. A. f. G. Ph., XIX, 2, pp. 218-224.

The object of this article is to direct attention to two antithetical elements in what the author calls the "natural history" of Spinoza's system. These two elements are Spinoza's "reality-sense" (*Wirklichkeitssinn*) and his pan-intellectualism. The former is seen in his attempt to explain nature by means of itself (naturalism), in his descriptive rather than normative treatment of ethics, in his concretism, and in his view of the divergence between thought and reality (between the epistemologically simple and the existentially simple, — a thing that is an unit for being may be a manifold for the understanding). Alongside of this conception of the divergence between thought and reality, we find in Spinozistic pan-intellectualism the antithetical view of the complete correspondence between thought and being.

W. A. H.

Kant's Antinomien und Zenons Beweise gegen die Bewegung. R. SALINGER. A. f. G. Ph., XIX, 1, pp. 99-122.

Of the four antinomies which Kant develops in connection with his quadripartite classification of the categories, Salinger omits from consideration here the antimony of causality and freedom, and the antimony of the world-creator, *i. e.*, the antinomies of relation and modality. Only the first two

(methodological) antinomies are in point for S.'s discussion. The fundamental error in Kant's argumentation lies in the confusion between two totally distinct conceptions of the infinite, viz., the potentially endless or infinite *sine fine finitum* and the actually infinite or transfinite. The former refers to the limitless possibility of endless progression or division, the latter to the fiction of a complete infinity. In basing his thesis on the latter (transfinite) and his antithesis on the former (endlessly divisible infinite) conception, Kant commits the fallacy of *quaternio terminorum*. In considering the Zenonic proofs for the illusion of motion and plurality, S. excludes the first proof (the 'Stadium') as palpably sophistic. The other three proofs, viz., 'Achilles,' the 'Dichotomy,' and the 'Flying Arrow,' he reviews in detail, and cites the classical criticisms of ancient and modern historians of philosophy — Aristotle, Bayle, Leibniz, Hamilton, Renouvier, Tannery, *et al.* The basic problem in the antinomies of Kant and in the proofs of Zeno is the problem of the continuum. Continuity quite as much as endlessness is a notion of possibility, not of actuality. Continuity and infinity are both postulates of conceptual thought, not facts of empirical thought. Consciousness can represent to itself successively distinct magnitudes, but not strictly a flowing continuum of magnitudes. It is in this limitation of thought that S. sees the heart of the Zenonic difficulty.

W. A. H.

Philolaus. W. R. NEWBOLD. A. f. G. Ph., XIX, 2, pp. 176–217.

N. is concerned here mainly with the interpretation of two passages in the Philolaic fragments, which Boeckh and his successors have left unintelligible. The first refers to the function of number as 'embodying' and 'splitting' ratios and the meaning of the gnomon; the second is concerned with the principles of *περαίνοντα* and *ἀπειρα*. The writer explains that the use of number supplants the old gnomon in making things "knowable to perception and comparable one with another in the manner of the gnomon," *i. e.*, in order to compute various areas or *quanta* represented by areas, it is no longer necessary to employ the gnomon in their reduction to parallelograms having a common side. For by the addition, subtraction, multiplication, and division of numbers, areas may be measured directly and the relations between numbers be made to faithfully represent the relations between figures. The arithmetical method of computing the quantitative attributes of figures and areas succeeds the cumbersome geometrical or gnomon method. In the matter of embodying and splitting ratios, N. conjectures that some such word as *συνάπτων* be read instead of Boeckh's emendation *σωματόν*. He takes *σχίζων* to mean here 'factoring.' He would therefore make the passage mean "compounding and factoring ratios," *i. e.*, number not only makes *quanta* directly comparable one with another, but is the instrument whereby 'ratios' may be multiplied and factored. N. thinks that *ἔργα* may have the common early meaning of 'cultivated fields,' and *ἀπειρα* and *περαίνοντα*

would then refer to indeterminate and determinate patches or field-shapes. This conception of determinants as similar plane figures would explain the reference to *ἔργα*. N. further explains the early Pythagorean application of geometrical figures to the problems of astronomy and its survival in astrology, while the later arithmetical use of degrees, minutes, and seconds rendered the earlier method obsolete. Analogous to the way in which arithmetic superseded geometry amongst the Pythagoreans, is Descartes's translation of many mathematical truths into algebraic terms, that were earlier expressed geometrically. Philolaus had probably inherited from the earlier Pythagoreans the geometrical method of analyzing the universe into a limited number of similar figures, but this method broke down in application to the *δῆρα*, the residuum of the *πειράνοντα*, and to such abstractions as temperance, justice, etc., which had to be brought into the *Harmonia*, and to these the numerical interpretation was applied by identifying them with certain numbers to which they had resemblance.

W. A. H.

Mechanismus und Teleologie in der Philosophie Lotzes. K. WEIDEL,
A. f. G. Ph., XIX, 1, pp. 1-98.

The first part of this article contains a formulation of the views of Lotze regarding mechanism and teleology, and is followed by a second part in which W. subjects these views to a critical examination. The outline of the discussion is as follows: I. *Exposition*: (1) the nature of mechanism; (2) the sphere to which mechanism is applicable; (3) the mechanical world-view; (4) the teleological world-view; (5) the freedom of the will. II. *Criticism*: (1) mechanism; (2) phenomena of life; (3) teleology. After stating the theories of Lotze under the above-mentioned rubrics, W. examines the scope and significance of the principle of mechanism. On the foundation of the most throughgoing application of the principle of mechanism to the physical world, Lotze erects the superstructure of a teleological-religious metaphysics. Within the physical world, including biological phenomena, every event is necessarily conditioned by the causal interaction of physical forces. In causality and identity, on the one hand, and classification and specification, on the other hand, we have formal principles of absolute validity. By means of these we comprehend the world, for comprehension is the reference of a phenomenon to its causes and to its position in a complex, in which it has a definite place. In the world there is nothing causeless, *sui generis*, accidental, unrelated. But in the philosophy of Lotze, physical and psychical phenomena form two causally isolated worlds, in the former of which every event is referable only to physical causes, and in the latter every event is referable only to psychical causes. The consequence of the view would be a parallelism between the physical and psychical, which is due to the fact that Lotze took over from the old psychology the doctrine of the substantiality of the soul, instead of regarding the soul as consisting merely in psychical proc-

esses. He expresses here a view which in biology he had vehemently combated (vitalism or life-substance). Further, he is forced by this view to deny the doctrine of the conservation of energy. For a molecular motion in the brain can set up only another physical motion; when an equivalent arises in a world not causally related with the physical, viz., in the world of psychical events, the physical energy simply vanishes without trace within the physical world. The causal series at this point is broken. The converse of this would be true of a conative process. So, too, in regard to the freedom of the will, Lotze, while admitting that determinism cannot be scientifically disproved, concedes that freedom is a matter of faith, to which, however, we are forced by the consciousness of choice and the judgment of merit and guilt, and herein he further denies the universality of the causal nexus in the psychical series. W. points out that every act of the will is determined by the antecedent causal series within the character, and explains in detail the illusion of the freedom of choice. According to Lotze three presuppositions are necessary in order to make the mechanical explanation of the world intelligible: (1) The existence of a world of concrete, definitely differentiated reals; (2) the existence of definite, universal laws, as eternally valid formulæ for the interaction of these concrete reals; (3) the existence of an exactly determinate order and position of these reals at every point in the past, also at the arbitrarily fancied beginning point in the cosmic development. These presuppositions of a mechanical explanation of the world's development involve the acceptance of teleological world-bases. Lotze's further speculations, by which he seeks to establish a monism, move in a sphere outside the limits of experience and therefore outside the limits of the scientifically demonstrable. His attempt is shipwrecked on the logical irreconcilability of the infinite many and the absolute one, atomism and pantheism, and his monistic standpoint sheers over into dualism. His conception of a world-plan is a piece of anthropomorphism. His metaphysical speculation is an external, untenable union of mechanical physical fatalism with teleological ideas, but not a reconciliation. Such a reconciliation is discoverable only in an idealistic interpretation of the physical world.

W. A. H.

The Conception of the Unknown in English Philosophy. T. M. FORSYTH.
Mind, No. 61, pp. 101-117.

English philosophy has persistently insisted that experience is the true basis for philosophical thought. Concomitant with this emphasis, there has been a conception of an unknown sphere beyond the limits of experience. As the various theories have refined upon the essential nature of experience (the known), a corresponding advance in the conception of the unknown beyond the limits of experience has inevitably taken place. The present paper is an attempt to follow the latter development, and to indicate its connection with the former. The view of experience that forms the basis of the empirical school is that of a set of discrete data; knowledge arises

from the contact between mind and matter, each of which exists independently of and prior to experience. The logical outcome of such a conception of experience is absolute skepticism with reference to the ultimate validity of knowledge, since the realm of the knowable is restricted to ideas alone. In reaction against this Lockean development, the 'common sense' philosophy of Reid and Hamilton rehabilitates the objectivity of knowledge, but at the expense of reasserting the antithesis of mind and matter as factors in its production. This dualism the Scottish philosophers never transcend, though they are not entirely consistent with themselves. Again we are landed in scepticism ; but, instead of one unknowable reality, as with Hume, we now have two on our hands. The resuscitation of the empirical standpoint in Brown and Mill is interesting chiefly because it emphasizes the futility of attempting to base an epistemology on such presuppositions. Spencer corrects Hamilton's impossible conception of an unconditional existence known only negatively ; but he himself inconsistently posits an unknowable beyond the realm of the known, thus asserting an existence which has no relation to knowledge. Against this conception of an unknowable existence, Ferrier is the first in English philosophy to formulate an argument. Such a conception, he maintains, is a nonentity, and in this position he agrees with the thinkers of to-day ; the only unknowable is the unintelligible, which does not really exist. Reality may be unknown, but not unknowable.

G. W. CUNNINGHAM.

NOTES.

Dr. Henry Stuart, of Lake Forest College, has been appointed Assistant Professor of Philosophy at Stanford University.

Mr. Walter B. Pitkin has resigned his position in the department of philosophy of Columbia University to accept an editorial position on the *New York Tribune*.

Dr. Eduard Zeller has celebrated his ninety-third birthday.

Dr. Ernst Meumann, of Königsburg, has been called to Münster to succeed Professor Busse.

We have received the first number of *The Psychological Clinic*, a journal devoted to the study of the mental and moral retardation of children. It is published monthly, except in July, August, and September, and is edited by Professor Lightner Witmer, of the University of Pennsylvania.

Dr. Shepherd Ivory Franz, psychologist to the Government Hospital for the Insane, has been appointed Professor of Experimental Psychology in George Washington University.

Dr. W. E. Hocking, of the University of California, has been appointed Assistant Professor of Philosophy at Yale University.

We give below a list of the articles, etc., in the current philosophical periodicals :

THE AMERICAN JOURNAL OF PSYCHOLOGY, XVIII, 1 : *B. S. Gowen*, Some Aspects of Pestilences and Other Epidemics ; *Frank D. Mitchell*, Mathematical Prodigies ; Psychological Literature ; Book Notes ; Report of the Recent Meeting of the Psychological Association.

THE PSYCHOLOGICAL REVIEW, XIV, 2 : *James Rowland Angell*, The Province of Functional Psychology ; *W. M. Urban*, Definition and Analysis of the Consciousness of Value, II ; *Helen B. Thompson* and *Kate Gordon*, A Study of After-images on the Peripheral Retina ; Editor's Announcement.

THE PSYCHOLOGICAL BULLETIN, IV, 2 : *Amy E. Tanner*, An Illustration of the Psychology of Belief ; Psychological Literature ; Books Received ; Notes and News.

IV, 3 : *Wilbur M. Urban*, Recent Tendencies in the Psychological Theory of Values ; Sixth Annual Meeting of the American Philosophical Association ; Meeting of the Southern Society ; *A. W. Moore*, Baldwin's Functional Logic ; Psychological Literature ; Books Received ; Notes and News.

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS, IV, 3 : *John E. Russell*, Pragmatism as the Salvation from Philosophic

Doubt ; Societies ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 4: *Alfred H. Lloyd*, The Poetry of Anaxagoras's Metaphysics ; *W. H. Sheldon*, Some Inadequacies of Modern Theories of Judgment ; *W. P. Montague*, Current Misconceptions of Realism ; *William James*, A Reply to Mr. Pitkin ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 5: *Walter T. Marvin*, The Nature of Explanation ; *A. C. Armstrong*, Individual and Social Ethics ; *Herbert Nichols*, Pragmatism versus Science ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 6: *William James*, Pragmatism's Conception of Truth ; *H. W. Wright*, The Classification of the Virtues ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 7: *R. S. Woodworth*, Non-sensory Components of Sense Perception ; *Frank C. Doan*, Humanism and Absolute Subconsciousness ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

THE PSYCHOLOGICAL CLINIC, I, 1: *Lightner Witmer*, Clinical Psychology ; *Clara Harrison Town*, An Infantile Stammer (Baby Talk) in a Boy of Twelve Years ; *Edward A. Huntington*, A Juvenile Delinquent ; *Lightner Witmer*, University Courses in Psychology ; Reviews and Criticism ; News and Comment.

ARCHIV FÜR SYSTEMATISCHE PHILOSOPHIE, XIII, 1: *Max Frischeisen-Köhler*, Über die Grenzen der naturwissenschaftlichen Begriffsbildung, II ; *Branislav Petronievics*, Über die Wahrnehmung der Tiefendimension, II ; *Marie Joachimi-Dege*, Das Wesen des menschlichen Seelen- und Geisteslebens, II ; *R. Seligman*, Der ökonomische Güterwert als Wille zur Arbeit, II ; *Ernst Fischer-Planer*, Vererbung psychischer Fähigkeiten ; *Walter Kinkel*, Zum 'kritischen Idealismus' ; *Albert Sichler*, Über falsche Interpretation des kritischen Realismus Wundts und Beurteilung von O. Pfisters kritischen Transzendental-Realismus ; Jahresbericht.

KANTSTUDIEN, XII, 1: *Ernst Cassirer*, Kant und die moderne Mathematik ; *Fritz Medicus*, Kant und die gegenwärtige Aufgabe der Logik ; *Oskar Ewald*, Die Grenzen des Empirismus und des Rationalismus in Kants Kritik der reinen Vernunft ; *H. Staeps*, Das Christusbild bei Kant ; *W. B. Waterman*, Kant's Critique of Judgment ; Recensionen ; Selbstanzeigen ; Mitteilungen ; Kantgesellschaft.

ZEITSCHRIFT FÜR PSYCHOLOGIE, XLIV, 3: *Stephan Witasek*, Über Lesen und Rezitieren in ihren Beziehungen zum Gedächtnis ; *Aloys Müller*, Die Referenzflächentheorie der Täuschung am Himmelsgewölbe und an den Gestirnen ; Literaturbericht.

XLIV, 4: *A. Pick*, Zur Lehre vom Einfluss des Sprechens auf das Denken ; *Stephan Witasek*, Über Lesen und Rezitieren in ihren Beziehungen zum Gedächtnis (Schluss) ; Literaturbericht.

REVUE PHILOSOPHIQUE, XXXII, 3 : *F. Pillon*, Sur l'imagination affective ; *A. Lalande*, Le mouvement logique ; *Sageret*, De l'esprit magique a l'esprit scientifique (1^{er} article) ; Analyses et comptes rendus ; Revue des périodiques étrangers ; Livres nouveaux.

REVUE NÉO-SCHOLASTIQUE, XIV, 1 : *Clodius Piat*, Valeur de la raison humaine ; *Jean Halleux*, A propos d'un livre sur l'existence de Dieu (suite) ; *Ph. de Ribaucourt*, La nature du dilettantisme ; *F. Van Cauwelaert*, L'empirio-criticisme de Richard Avenarius ; *J. Cevolani*, Notes sur diverses questions de logique formelle ; Chronique philosophique ; Le mouvement néo-thomiste ; *D. Nys*, Bulletin cosmologique ; Bulletin de l'Institut de Philosophie ; Comptes rendus.

REVUE DE PHILOSOPHIE, VII, 2 : *J. Gardair*, La transcendance de Dieu ; *A. D. Sértillanges*, Réponse à M. Gardair ; *Surbled*, Aphasie et Amnésie ; *G. Chatterton Hill*, La conception sociologique du divorce ; *Alex. Veronnet*, La matière, les ions, les électrons (3^e article) ; *Inazo Nitobé*, Bushido, l'âme du Japon ; Analyses et comptes rendus ; L'enseignement philosophique.

REVUE DE MÉTAPHYSIQUE, XV, 1 : *Harald Höffding*, La concept de la volonté ; *A. Lalande*, Sur une fausse exigence de la raison dans la méthode des sciences morales ; *A. N. Whitehead*, Introduction logique à la géométrie ; *G. Aillet*, La responsabilité objective (fin) ; *L. Brunschvicg*, La philosophie pratique de Kant ; *Ed. Goblot*, La licence de philosophie ; *F. Challaye*, Le syndicalisme révolutionnaire ; Supplément.

JOURNAL DE PSYCHOLOGIE NORMALE ET PATHOLOGIQUE, IV, 2 : Société de Psychologie : Communication de M. Séglas ; Discussion de MM. Arnaud et Sollier ; Communications du Dr. Marie ; Bibliographie.

RIVISTA DI FILOSOFIA E SCIENZE AFFINI, XVI, 1-2 : *La direzione*, Ai lettori e agli abbonati ; *R. Ardigò*, Tesi metafisica, ipotesi scientifica e fatto accertato ; *G. Marchesini*, Sui confini della tollerabilità : I. Il fatto dell' intolleranza ; *C. Ranzoli*, Che cos'è l'agnosticismo ? *A. Levi*, La rinnovata metafisica del diritto ; *G. Nascimbeni*, Il 'collegio' come campo sperimentale per la psicologia collettiva ; Questioni varie ; Autorelazioni, Analisi e cenni ; Notizie ; Per una certa critica ; Bullettino bibliografico de filosofia e scienze affini ; Sommari di riviste ; Per Giosue Carducci.

RIVISTA FILOSOFICA, IX, 5 : *G. Celoria*, Sulla bara dell'amico ; *B. Varisco*, C. Cantoni e la teoria della conoscenza ; *A. Faggi*, Cantoni e Vico ; *G. Vidari*, La morale di C. Cantoni : *A. Piazzi*, Carlo Cantoni e l'educazione nazionale ; *G. Villa*, Filosofia e scienza ; *G. Zuccante*, S. Bernardo e gli ultimi canti del paradiso (fine) ; Rassegna bibliografica ; Nuove riviste ; Sommari delle riviste straniere ; Libri ricevuti ; Indice dell'annata.

THE
PHILOSOPHICAL REVIEW.

PHILOSOPHY IN FRANCE (1906).

I.

WHAT appears to me most noteworthy at the present time in the movement of French philosophy, is the increasing number of philosophical works by professional scientists, and the disturbance which these new publications have brought to habits of thought which date back more than a century.

The problems of ethics, which for several years so largely engrossed attention, have doubtless not yet lost their interest. M. Lévy-Bruhl has set forth his position forcibly and clearly in an article in the *Revue Philosophique*; M. Weber has published a very curious practical apology for Stoicism considered as a moral hygiene which is still valuable at the present time; M. Belot has just combined into one volume the articles which I summarized in this REVIEW last year, with the addition of a new and very interesting study on suicide. *Les principes de morale rationnelle* by M. Landry, which is an attempt to effect a synthesis between utilitarianism and ethical rationalism, has given rise to interesting discussions. The manuals of ethics are improving as a result of these practical works. But, nevertheless, the centre of philosophical activity at the present time seems clearly to be concerned with Logic and Science.

"The Library of Scientific Philosophy," in which have appeared the two celebrated works by Henri Poincaré on *L'hypothèse* and on *La valeur de la science*, is rapidly being enlarged by a series of books written by physicians, laboratory men, naturalists, and mathematicians, who feel strongly the need of generalizing. I have previously mentioned, in a preceding article, the

work of M. Houssay, entitled *Nature et sciences naturelles*; I must now add to that *La vie et la mort* by M. Dastre, professor of physiology in the Faculty of Sciences at the University of Paris; *Les doctrines médicales* by Dr. Boinet, professor agrégé of the Faculty of Medicine; *Les influences ancestrales* and *La lutte universelle*, two works by M. Le Dantec, professor of embryology in the Faculty of Sciences, one of the most prolific writers among contemporary scientists who are at the same time philosophers. He is, moreover, the indefatigable advocate, one might almost say the official defender, of monism, to the justification of which he has this year, in addition to his books, devoted two articles in the *Revue Philosophique*. Monism, however, as he understands it, is not an hypothesis or a metaphysical dogma, but an *epistemological* truth, which is based on a criticism of sensation, on the reduction of all scientific explanation to terms of optics, and consequently on the possibility of translating into a unique language (that of the "canton optique") all the other varieties of sense perception. *L'ame et le corps*, by M. Alfred Binet, director of the laboratory of experimental psychology for Higher Education at the Sorbonne, is a work entirely devoted to questions which ordinarily concern psychophysicists but little: realism and idealism, causality and finality, criticism of the idea of matter and of the idea of spirit, the nature and function of the categories of the understanding. If it had been announced ten years ago that M. Binet would write such a book, people would have been incredulous. It would have caused laughter, if it had been added that we should see this experimenter in accord with M. Bergson in denying explicitly the parallelism of the mind and the body, and in returning with him to Reid's contention that in perception consciousness is in immediate contact with its object. I shall not undertake to give a summary of this position, with which readers of the REVIEW are doubtless already acquainted. I only wish to call attention to this remarkable attempt on the part of a technical scientist, who has lived in the midst of instruments of observation and devoted himself to experimental inquiries, to accord to his higher interest the satisfaction of an "hour of synthesis" of which a great his-

torian has remarked that it is not bought too dear at the cost of a lifetime of analysis.

In the same series appeared Dr. Le Bon's book, *L'évolution de la matière*, which reached in one year its twelfth edition. It summarizes the ideas which the author has already maintained for a decade on the gradual 'dematerialization' of matter by the phenomena of radio-activity. "Nothing is created, everything is disappearing;" such is his epigraph. It will be noticed that in the title of this work, the term 'evolution' is taken not in the sense of Spencer or of Haeckel, but in exactly the opposite sense, and that this title ought to be, strictly speaking, "The Dissolution of Matter." This is indeed a remarkable contribution, from the standpoint of mass, to the study of this important, but still imperfectly understood phenomenon, of which Carnot's principle concerning the loss of energy shows another aspect from the standpoint of the dissipation of energy. These works, confined for a long time to the knowledge of a small circle, suddenly became popular after the discovery of radium by M. and Mme. Curie.¹ Rarely has a discovery made a greater impression on the public imagination. Everything connected with it has excited prejudices. Ignorant people who are persecuted imagine now-a-days that their enemies pursue them by means of unknown and invisible radiations, as they imagined ten years ago that they were hypnotized, and twenty years ago that they were electrified by machines of extraordinary power. When it was first maintained that radio-active bodies furnish energy, without appearing to borrow it from any source, all the enemies of science, the credulous and irrationalists, proclaimed joyfully that the principle of the conservation of energy had received its death blow, and that it must be relegated with Mariotte's law to the museum of old errors, and that finally they were going to be freed, by a sure proof, from the intolerable determinism in which the scientists sought to imprison them. A recent novel has re-

¹You have no doubt learned that, after the tragic death of M. Curie in a carriage accident, Mme. Curie was called to the chair at the Sorbonne which her husband had formerly occupied. She is the first woman in France who has been granted a professorship of Higher Education, but now that the principle is admitted, everyone believes that this nomination will not be the only one.

lated with scarcely any exaggeration, this political and worldly enthusiasm for radium, "which," as it says, "turns everybody's head. One of the doctors in the drawing-room having shown, I do not know how, that radium was in contradiction with the fundamental laws of science, this metal became, if I may thus express myself, highly reactionary. Mahulot opened in his journal a rubric for radium. Madame Lambercier bought several tons of pitchblende and endowed a laboratory in order that research work, so useful to the cause, might be carried on . . ." ¹ Such was the effect produced among those conservative snobs who were at war with rationalism. With the mass of the public, on the contrary, after some moments of anxiety and hesitation, all these novelties have finally turned to the glory of science, and have reinforced a kind of spiritualism. For in this multitude of radiations so long unknown, and some of which are so active, in the proven possibility of wireless telegraphy, and even in the accidents due to the Roentgen rays, the philosophy of the crowd discerns immediately the possibility of telepathy, of action at a distance, of the exteriorization of sensibility. They even find in these phenomena an argument in support of communications with the world of the dead, by means of spiritistic phenomena which manifest themselves by lights or effluvia of the same kind : *Διορίζεν γάρ, said Aristotle, οὐκ ἐστι τῶν πολλῶν.*

Philosophers must have a public, even if the thought of this public be on a much lower plane than their own. All these movements of thought, of which reasonable men are somewhat ashamed, create nevertheless a *milieu*, a field of philosophical forces which makes possible and supports the appearance of more important philosophical works. Thus M. Picard, professor of mathematics at the Sorbonne, who was appointed by the Government to make a general report on the recent progress of science on the occasion of one of the last Expositions, has taken up again and developed this report, and made a book of it entitled *La science moderne et son état actuel*. This work contains a considerable amount of matter ; it is very abstract, but without being mathematical. The information which it gives is almost

¹ Abel Hermant, *Monsieur de Courpière marié*.

always extremely condensed, and it often contains allusions which would be unintelligible to the general reader. It might seem that these qualities would confine the work to a narrow circle of specialists. Nevertheless, it is actually in its seventh thousand : to such an extent is public curiosity eager for scientific synthesis ! It is almost the same with *La physique moderne, son évolution*, the work of M. Lucien Poincaré (nephew of Henri Poincaré, and himself Inspector General of Secondary Education). This book, however, though somewhat technical, is less so and less condensed than the preceding. It is also more philosophical. M. Picard holds himself aloof from philosophy as if this were something foreign to science : "I shall avoid in general," said he, "all purely philosophical discussion ; we shall construct philosophy from the sciences, if we wish, in studying their intricacies and reciprocal influences, and by showing the real object of their research ; but this is not philosophy in the sense in which it is often understood. A physicist or a physiologist, during an experiment, never raises questions concerning the reality of the external world. He believes in the reality, in the commonest sense of the word, of the phenomena which unfold before him, and of which he seeks to determine the laws. . . . In another order of ideas, the geometrician, when he studies the properties of lines and surfaces, does not concern himself with the origin of geometrical conceptions. . . . I shall, therefore, stop only incidentally to consider such problems, not because I do not recognize their interest ; but because, on account of their psychological or metaphysical nature, they would carry me beyond the well-defined limits within which I wish to confine myself."¹

M. Lucien Poincaré has neither as severe a concept of philosophy, nor such a distrust in regard to questions of criticism and epistemology. On the contrary, he says : "One of the most

¹ Picard, *La science moderne*, pp. 2-3. M. Picard himself, however, protests against the scepticism which proclaims the collapse of the Cartesian principle of mechanism : ". . . Anxiety was aroused," he says, "by the fact that recent discoveries seemed to threaten principles which had hitherto been regarded as beyond attack. This anxiety, however, is growing less, and there are grounds for believing that physicists and chemists will for a long time be able to hold the Cartesian formula, when its true meaning is apprehended : we shall see, indeed, how much the notion of mechanism is capable of adaptation." (*La science moderne*, p. 9.)

interesting results of recent discoveries has been to restore to honor among scientists, speculations regarding the constitution of matter." But was this previous avoidance of metaphysical speculation real? It seems, indeed, that it rested on a simple illusion: "The contempt which scientists manifested with regard to philosophical speculations did not prevent them, however, from admitting, unknown to themselves, certain axioms which they did not discuss, and which are, properly speaking, metaphysical concepts. They spoke unconsciously a language which had been taught them by their predecessors, but whose origin they did not investigate." In contrast with this older point of view, the modern physicist goes straight to the difficulty; and, in order to meet it squarely, he does not hesitate to undertake a criticism of knowledge, or to philosophize expressly on the question whether in nature there is only mass and movement, whether the old Cartesian principle still holds good, or if one ought not to try to transform the quantitative into the qualitative, and the simplest sciences into the language of the most complex, — in much the same way as Auguste Comte, in a different connection, announced the ultimate reduction of sociology to mathematics, in its function of a model science which would serve to direct and organize the positive synthesis. "They ask if, instead of giving a mechanical interpretation of electricity, it might not be allowable to give, on the contrary, an electric interpretation of the phenomena of matter and motion, and thus to make mechanics itself become a part of electricity. Thus one sees a spring-tide appear in the eternal hope of coördinating all natural phenomena in a grand and imposing synthesis. Whatever the result of such attempts may be, they deserve the greatest attention, and ought to be examined carefully, if one would form an exact idea of the tendencies of modern physics."

And doubtless there will come a time when this electromorphic representation of the physical universe will itself be overthrown by some new conception. But whatever the methods may be, science as a whole will profit by all these changes, just as the insect is developed by its own metamorphosis. "The field of our investigations has no limits; what we today call the unknowable will

recede farther and farther before the advance of science, which will never be stopped in its onward march."

Although M. Duhem may be often quoted as an authority by those who would belittle the value of science, nevertheless his conclusions at the present time do not differ materially from those which we have just cited. In reading *La théorie physique, son objet et sa structure*, that excellent work in which he has collected and condensed his previous studies, it often appears that M. Duhem himself has felt it necessary, like M. Henri Poincaré and M. Milhaud, to point out the exaggerations of his disciples of which he disapproved.¹ Or rather, he corrected both sides at once: against the rationalism of M. Poincaré, he uses in defense some of the more relativistic arguments of M. Le Roy; against the contingentism of M. Le Roy, he maintains that something remains constant in the physical theory in spite of its transformations. This last point of view, however, is preferred by him, and with this position he concludes. The physical theory, according to him, is not based on abstract rational principles, but is judged primarily by history, from which it is inseparable. There are some elements of Hegelianism in the point of view of this physicist, although he is a Catholic and one who readily quotes Pascal. "To give the history of a principle" he says in concluding, "is at the same time to make a logical analysis of it. The criticism of the intellectual processes which physics sets in play, is bound indissolubly with the account of the gradual evolution by which deduction perfects theory and makes of it an image ever more exact and ever better ordered by laws which observation reveals. Moreover, the history of science alone is able to guard the physicist, both from foolish ambitions of dogmatism and from the hopelessness of Pyrrhonism . . . In bringing to light theories once dominant but now forgotten, history reminds him that the most alluring systems are only provisional representations and not final explanations. And, on the other hand, by unfolding before his eyes the tradition by which the science of each epoch is nourished by systems of past centuries, and by which it is pregnant with the physics of the future, by

¹ See PHILOSOPHICAL REVIEW, Vol. XVI, May, 1906, pp. 246, 249.

citing to him the prophecies which the theory has formulated and which experience has realized, it creates and strengthens in him the conviction that physical theory is not a purely artificial system, which is to-day convenient and to-morrow useless. He is convinced that it is a classification which is growing more and more natural, an ever clearer reflection of the realities which the experimental method could not directly observe."¹

II.

I would be very far from having completed the list of contributions to philosophy by scientists, if I should go on and add to the important works mentioned all the periodical articles or communications from learned societies which show a similar spirit. But what I have already said may suffice to show the importance of this movement. It is so great that it is beginning to render professional philosophers uneasy. It must not be forgotten that in France the majority of future scholars, from the time they are sixteen or seventeen years old, specialize in 'Literature' or the 'Sciences,' the indestructible remains of the *trivium* and the *quadrivium*, and that up to the present time the education of all the future professors of philosophy has been almost exclusively philosophical and 'literary.' M. Sageret, a critic in the *Revue Philosophique*, asked anxiously not long ago, if we were not soon going to see systematic philosophy entirely taken possession of by scientists, and if professional philosophers were not going to be obliged to confine themselves to the history of philosophy, for which alone they had adequate preparation. M. Goblot, in the *Revue de Métaphysique*, going still further, even spoke of restricting them to ancient philosophy. The anxiety on this point is very apparent. Among the young Fellows of philosophy, who either have a personal income or one derived from bursaries, and are not therefore obliged to go into teaching immediately, there are several who devote themselves seriously to the study of the positive sciences and work in laboratories. Some of them declare unhesitatingly that they will remain and try to make their career in these fields, and will keep philosophical reflections (if any

¹ Duhem, *La théorie physique*, pp. 444-445.

should come to them) for their leisure hours. "When I began to study philosophy," said a student to me, "I thought I should learn something positive. Philosophy seemed to me science itself, and science understood in an intelligent manner. When I saw what it was in reality, it was too late to change my course."

The question is very serious. The situation, however, is already somewhat improved by the amendment for the Fellowship examination which is to be put in force this year. I shall go on to explain this reform.

The central fact around which all the philosophical profession in France gravitates, is the philosophical class in the lyceums and colleges, which completes the course of secondary education. It is for these classes that professors are wanted; they number more than three hundred,¹ while there are only forty University professors of philosophy. The teaching in this class is very efficient and renders very great service in the intellectual and moral development of the young men. Here philosophy is really utilized for a social purpose.² Almost all the students who elect this instruction present themselves at the competitive examination called 'Agrégation'; those who are successful become professors in the lyceums; those who fail and receive only a license, become professors in the colleges.

Formerly the Fellowship examination consisted only of a single series of tests which were presented to the candidate all at once. These tests at first had mainly a pedagogical character: the purpose was to discover whether the candidate was capable of conducting satisfactorily a class in philosophy for young men of sixteen or seventeen years of age. The written part of this examination therefore comprised at first two systematic disserta-

¹These are distributed as follows: 18 professors of the higher lyceums and colleges of Paris and Versailles, which form a special class; 107 professors of the department lyceums; 186 professors of colleges, of which 61 have charge (in the less important colleges) of the instruction in both philosophy and literature, or philosophy and history. To this list may be added, a certain number of professors on leave of absence. I am indebted for this information to the kindness of M. Darlu, inspector general of philosophy. I may mention that the lyceums and colleges are institutions of 'Secondary Education'; the courses of instruction are the same in both, but the colleges are less important and have a different financial organization.

²See PHILOSOPHICAL REVIEW, Vol. XV, July, 1905, pp. 429-430.

tions, and an historical dissertation dealing with a period of the history of philosophy which had been assigned at the beginning of the year. Each of these dissertations was written at a single sitting of eight hours of consecutive work. Some weeks later the candidates were required to present a lecture or lesson on systematic philosophy, and one on historical philosophy, each being prepared in twenty-four hours, on a subject chosen at random. Finally, after some days of rest, they were required to give three interpretations of authors, one Greek, another Latin, and the third modern, with twenty minutes preparation for each. The explained texts, the lesson subjects, and those of the dissertations were all drawn from the program of the lyceums in which the future candidates were to become professors.

No special scientific preparation was required for this examination. It was necessary that the candidate should have the degree of licentiate in letters (which does not embrace any scientific test) and the bachelor of science degree, the examination for which was in very elementary physics and mathematics. Moreover, the pedagogical character of this competition has been rapidly altered, on the one hand, by development of historical and philological learning, and on the other hand, and chiefly, by the effort of the candidates to show original thought and philosophical ability capable of impressing the examiners. That is seen to be inevitable, when one considers the classical culture of the candidates, the severe competition of the examination, and the lasting importance of its results for those who are successful. The art of cleverly building constructions of ideas, beauty of style, facility and elegance of diction, a capacity for commenting brilliantly on the authors set down on the program, such were the dominant characteristics of this brief and difficult test.

One cannot deny that it has produced men of great talent, but it also made professors who were poorly adapted to their specialty and also to their career. As a remedy for these evils, the following measures have been proposed.

The old Fellowship examination has been divided into two parts: (1) An examination which is usually passed a year after the license and which is called the 'diploma of higher studies';

(2) a competition which is held not less than a year after the candidate has obtained this diploma, and which is the Fellowship examination in the strict sense of the word.

The diploma of higher studies is exclusively theoretical. It consists, in the first place and essentially, in the composition of an essay of a hundred pages, on an original subject chosen by the candidate in the freest manner from the subject taught by the Faculty¹; and in the second place, of philosophical and philological explanations of texts assigned three months in advance to each particular candidate by the professors who have charge of the examination. The Fellowship examination proper, which is held a year later, is essentially professional and pedagogical. It requires as preliminary conditions that the candidate should possess: (1) a license, whether it be a license of letters or a license of science; (2) the diploma of higher studies of which we have just spoken. (3) If he has the license of letters, he must also have a scientific degree, bachelor of science or certificate P.C.N.² of the Faculty of sciences, proving that he has attended for a year one of the elementary courses of the faculty, and that he has passed successfully an examination on the subject-matter of the course. (4) He must have passed a term of three weeks in a class of the lyceum, in the capacity of auxiliary professor, under the direction of an experienced professor, who at the end of this period makes a report to the academical authorities on the professional qualities of the licentiate.

As to the tests of the examination, they remain almost what they were: a systematic dissertation and a dissertation on the history of philosophy, each written in seven hours; a philosophical lecture given after five hours of solitary preparation, during which time the candidate is allowed to make use of whatever notes and books he may wish; finally, the explanation of three

¹ Here are some philosophical subjects of the University of Paris for 1907. This list may indicate the range and variety of topics: The genesis of the evolutionary hypothesis in Darwin's mind; Descartes' theory of emotion; Theories of musical harmony; Incoherent forms of mental diseases; The trust movement in the textile industries; The pupil of the primary schools at ten years of age; The interpretation of Kantianism by Reinhold; Jehring's Philosophy of Right.

² That is to say, physics, chemistry, and the natural sciences.

passages from philosophical authors, taken from a list of authors published a year in advance.

It is evident that this new organization gives a larger part to the sciences and allows to pedagogical preparation its normal place in a professional examination. Nevertheless, the first of these reforms especially is not great. The science degree is *allowed* to replace the degree in letters; but this is merely theoretical. As a matter of fact, all the candidates come from the section of letters; and as to the certificate P.C.N., it doubtless represents more substantial knowledge than the bachelor of science degree, but, in the first place, it is a great deal more special, and, moreover, it is still very far from ensuring a really personal knowledge of the sciences; it is a degree for the pupil and not for the teacher. Moreover, the demand has already been made that the license of letters with mention of philosophy, which is the first step toward the Fellowship degree, should itself be transformed in the direction of the positive sciences. M. Goblot, professor at the University of Lyon, advocated this reform as early as 1902; he has just published a new article,¹ in which he repeats his former arguments and conclusions. The license of philosophy really comprises two parts: (1) A series of tests common to all the candidates for the degree of letters, namely, French literature, Latin composition, and a philological explanation of Greek, Latin, and French authors; (2) a series of special tests for the license in philosophy: a written and oral examination in systematic philosophy, a written and oral examination in the history of philosophy, and, finally, an oral examination in which the candidate may choose his special subject (pedagogy, law, history, neurology, etc.). The candidates for the license of philosophy are accordingly drawn exclusively from the students of literature. The proposal of M. Goblot is that candidates should be allowed to substitute for the common literary part of the examination the license in science, or the doctorate in medicine. In this way scientists wishing to philosophize would be allowed to take degrees and follow courses in the Faculty of Letters. Every one would gain by this arrangement:

¹ Goblot, "La licence de philosophie," *Revue de Métaphysique*, January, 1907.

professional philosophy by assimilating new elements, the scientists by coming to realize what they lack, namely, philosophical analysis and the history of philosophy. In this way, what so frequently happens at present, and what has been so justly deprecated by M. Mach, would cease to exist:—intelligent specialists without critical sense and philosophical culture, who in their naïve attempts to generalize, fall into confusions which were long ago cleared up, and are led into very serious mistakes which have been antiquated two hundred and sometimes even two thousand years. This is a waste of energy which it is necessary to check. One feels especially how necessary this critical education is, when one realizes that science is actually in danger of being submerged by the flood of useless publications.

III.

The same scientific need appears to account for the continued progress shown by the history of philosophy. Moreover, at the present time, the words 'science' and 'scientific' are beginning to be currently employed in speaking of philosophy. Exact methods of work have been established. The old forms of literary or abstract history have fallen more and more into discredit. All the philosophical world is beginning clearly to recognize certain absolute principles:—That it is only possible to arrive at general points of view after a long process of verification and technical classification; that a passage cited must never be altered in the slightest detail; that no one has the right to suppress part of a phrase or even a single word without notice and without replacing it by points; that still more one commits a grave fault, if he 'arranges' a quotation, though without changing the sense, in order to render it more characteristic or more elegant; that one ought not to quote from memory in a serious work, nor refer to a passage without telling exactly on what page and in what edition the reader may be able to verify its authenticity and to examine its context. It is also recognized that documents have only historical significance in connection with their date. Thus, he who wishes to understand a system must be strictly forbidden to make arbitrary reconstructions based on a pretended

discovery of an internal dialectic in the author that he is studying, which is independent of chronology but follows a logical order which brings together passages widely separated from each other in time, and separates writings of the same epoch. When, by chance, an imaginary interpretation of this kind is put forward, it is more and more strongly condemned by competent scholars, and this fact is a good indication of the progress we have made in this respect. Here, as in other fields of philosophy, *the duty of being objective* is more clearly recognized every year, I might almost say, every day.

In the meantime, under these general conditions, two historical schools continue to exist among us. The first is especially connected with the teaching of M. Boutroux. It may be said that this school has as its motto the epigraph he has taken for his *Etudes d'histoire de la philosophie*: Ζητεῖται τὸ ἴδιον (Aristotle). M. Boutroux quotes with approval the saying of Herder, "Einen Schriftsteller durch sich selbst zu erklären"; and recently in discussing the thesis of M. Rivaud, he said that, in order to understand Spinozism, the only way was to "relive" it, to grasp through its essential ideas the individual spirit which gives to this system its admirable unity.¹ This school regards the history of philosophy as essentially an effort to reconstruct the mind of the thinker whom one studies, in order to regain his point of view and that of his epoch, without judging them from the modern standpoint, and without asking what there is of truth or falsity, in an absolute sense, in their conception of things. The other school is derived rather from M. Brochard,² who is not willing to renounce the right of passing historical judgments, and who in more than one study has even specially insisted upon the modern value (he has also insisted sometimes on the eternal value) of the philosophical ideas which he has studied. This point of view appears to be shared by M. Lévy-Bruhl. It is certainly that of M. Couturat, the eminent author of *La logique de Leibniz*. In the preface to his recent work, *Les principes des mathématiques*, he sums up his position very emphatically in the following

¹ See also, for a characterization of this method, the preface to M. Boutroux's study of Pascal quoted later (page 381).

² And perhaps more remotely from Taine.

words: "To demand that a philosophy should always be judged 'from the inside,' from its own standpoint and that of the time in which it was written, is to admit that there is no truth in philosophy, and that a system is a work of art, which is only valuable by virtue of its unity and harmony. . . . In philosophy as elsewhere, the superstitious respect for the historic fact borders on diletantism and scepticism." Moreover, the historians of this school ask how we can judge that one fact is *historic* — that is to say, worthy of mention — and another fact is not? Is it not from the standpoint of our present philosophy? Thus, it is in the light of the truths which we possess, that we attach great importance to Descartes's rule of analysis and pass over with a few words his doctrine of animal spirits. As long as the question of an international language had not become a living one, who could dream of seeing in the Leibnizian speculations on this subject anything but an accidental utopian view which the historian had the right of regarding as of no importance?

It goes without saying that, in order to clearly explain these two theories, I am obliged to treat of their extreme points of view. As a matter of fact, the pure historians are not entirely without interest in systematic truth and the permanent acquisitions of thought. The rationalists, on their side, do not pass over as something negligible the historical individuality and personal originality of a thinker, that happy combination of varied elements "which only happens once," said Tarde, "and then only for an instant."¹ However, notwithstanding these reservations, the opposition of these trends of thought is very marked. In connection with the first point of view, I must note the remarkable historical work which M. Delbos has recently published, entitled *La formation de la philosophie pratique de Kant*. His purpose has been to understand and interpret Kant through the movement and oscillations of his thought, to show how he had at first

¹ *Lois de l'imitation*, p. 425.— The *Logique de Leibniz*, by M. Couturat, is dedicated to M. Boutroux. It is evident that, although there is a difference in point of view, there is no personal antagonism. I may say, moreover, that the personal relations among French philosophers are very cordial even when their opinions are most sharply opposed. Of all intellectual bodies, they show, I believe, the fewest jealousies and individual antagonisms.

advanced towards his system, and afterwards *in* his system. The author appropriates the saying of Kuno Fischer: "To explain anything is to follow its historical development." That accounts for the detailed character of this work, the abundance of cited passages, and the care with which all the halting-places of the thought are pointed out. Before arriving at his great definitive synthesis, Kant passed through a long period in which his thought was unsystematic and unstable. Several times he constructed provisional systems, formed of tendencies rather than of well defined ideas; and M. Delbos, conformably to his method, has made scrupulously exact statements of these. He sets himself to determine precisely all the influences which had affected Kant's thought, his pietistic antecedents, Wolffian philosophy, the doctrines of Hutcheson, Shaftesbury, Hume, and particularly the writings of Rousseau. M. Delbos pauses to study especially the influence of Rousseau upon Kant. Some have supposed that he was led to do this through patriotism; but I know him well enough to assert that it was nothing of the kind. His philosophical sympathies naturally tend towards the German philosophy of the nineteenth century rather than to the French philosophy of the eighteenth. But he is first of all an historian; he had the texts and he quoted them. His books, and notably the pages on Rousseau, are so strongly based on documentary evidence, that they do not leave much space for arbitrary interpretation.

While a great many philosophers in France, and particularly in Germany, still go to Kant as to a living source of truth, or refute his doctrines because they perceive in them a hindrance to moral progress, M. Delbos occupies himself quietly in making a dissection of the system, or rather a geological survey of its different stages.¹ The *Critique of Pure Reason* itself does not seem to him homogeneous. In the first place, one does not at first

¹ Just as this article was completed, I received M. Evellin's fine work entitled *La raison pure et les antinomies, essai critique sur la philosophie Kantienne*. It is the application of the inverse method to the philosophy of Kant. M. Evellin sets out from the antinomies of Kant, and solves them by maintaining that the complete point of view of the theses in every case contains the only truth, and that the position of the antithesis is purely imaginary.

perceive in it the idea of autonomy which later is to become the centre of the system ; and, in the second place, a strict historical analysis reveals the existence of two trains of ideas, one of which dominates in the Dialectic, while the other and older one reappears in the Methodology. His ethical system only finds its equilibrium in the *Grundlegung* ; it is only completed and arrives at a general view of the world in the *Critique of Judgment*. Following out his principle consistently, M. Delbos's sole problem is to determine how these conceptions have been formed, and to show how their different elements are related to each other. Having restricted his problem in this way, he brings to its solution great accuracy of knowledge. He shows particularly that there persists everywhere in the system a two-fold conception. On the one hand, we have moral ideas of a religious type, which have really a religious origin ; and, on the other hand, moral ideas of a judicial type. Between these two conceptions Kant did not really effect a synthesis, but continued himself to be aware of the duality. But while insisting on this duality, he nevertheless maintained that in the last resort there was no contradiction. The concluding words of M. Delbos's book well indicate its whole spirit. After having very succinctly indicated the elements of Kantian thought which are still valuable, he concludes briefly as follows : " If the Kantian ethics is still to remain to-day efficacious and fruitful, this cannot be by pretending to reduce the problems which confront us to Kantian forms. It only gains real importance for us when it is renewed and verified by contact with the problems of to-day, and when we obtain from it assistance in studying and solving these problems in a free spirit, — in that spirit which led Kant himself to write : ' There is no classical author in philosophy.' "

I have dwelt at such length on this work both on account of its great intrinsic value, and especially because it is characteristic of a method, and a method ought to be judged by its best products. From an historical point of view, the subjects which appear most attractive to workers are, in the first place, Leibniz, about whom have appeared the following works : An important study by M. Baruzzi, founded largely on unedited material and

entitled *Leibniz, et l'organisation religieuse de la terre*; a very good manual on the philosophy of Leibniz for the use of classes by M. Halbwachs; a long posthumous memoir of Foucher de Careil on the same subject, edited with a preface and study of the works of the author by M. Fouillée. Next in interest stands Maine de Biran. A collection of his manuscripts has been published by the *Revue de Métaphysique*, where they occupy a whole special number. At the same time there appeared a work by M. G. Michelet on the philosophy of Maine de Biran considered from the religious point of view. Spinoza also has his adherents: M. Brunschvicg has published, together with the new edition of his work on Spinoza's philosophy, a series of articles entitled "Spinoza and His Contemporaries." Finally, M. Rivaud has presented a thesis for the doctorate on the conceptions of essence and of existence in Spinoza's philosophy. The same author has contributed to the study of ancient philosophy an important work entitled *Le devenir et la matière dans la philosophie grecque*. This field has received less attention, but it may be announced that in the near future some studies on this subject by the lamented Paul Tannery will be published, perhaps in several volumes.

IV.

But the great interest of this year, so far as the history of philosophy is concerned, has been the trial of Pascal, who was prosecuted by M. Félix Mathieu, and defended by M. Abel Lefranc, and who will doubtless never be either condemned or acquitted for lack of a tribunal of the dead.

The point of departure of this much-disputed problem of philosophical history is well known. Pascal in 1646 repeated Torricelli's experiment and varied it in different ways. Descartes, while in Paris for a short time, paid Pascal two visits, on the 23d and 24th of September, 1647. Each of these visits lasted about two hours, and Roberval was present at the first. According to a letter of Pascal's sister Jacqueline, dated on the twenty-fifth of that month, Descartes and Pascal agreed that the cause of the phenomenon was the weight of the atmosphere, although they gave different explanations of it, while Roberval, on the other hand, entirely rejected that hypothesis.

The experiment of the Puy de Dôme was made on the 19th of September, 1648. Pascal did not inform Descartes of it, and did not send him the *Récit de la grande expérience de l'équilibre des liqueurs*, in which it was described, and which was published at the end of 1648. Now Descartes, in several letters to Mersenne (the first of which was written in 1647, and the others at the beginning of 1648), insists on knowing if Pascal had made that experiment, which, he says, he had advised him to perform. Learning in 1649 that the experiment had been performed without his knowledge of it, he wrote to Carcavi, an intimate friend of Pascal, to complain that the latter had not informed him of it. He repeats twice in this letter, that he had had the first idea of this experiment, and that he had suggested it to Pascal, who had never thought of it.

In the *Récit*, on the contrary, which Descartes never knew, since he died in 1650 without having seen it, Pascal explicitly states that he himself had thought out this method of verification ; and in a short treatise published in 1651, eighteen months after Descartes's death, he made this express declaration : " It is true, and I say it boldly, that this experiment is my invention ; and therefore I can say that the new knowledge which it has revealed to us is entirely due to me."

Which one has lied or is deceiving himself? One might ordinarily explain the difficulty by saying that Descartes had not understood Pascal in the conversations which they had held, and that he had himself imperfectly explained his ideas. Such was the solution proposed by M. Boutroux and by M. Adam, and consequently adopted by public opinion. M. Félix Mathieu (of Geneva), in three articles published in the *Revue de Paris*, has contended most vigorously against this explanation. According to him, Pascal deliberately committed a breach of faith, when he claimed for himself the idea of the experiment. Here are his arguments.

That Pascal and Descartes, talking together on two occasions and for several hours, should not have understood each other on essential points is very difficult to admit. Now, the very precise demands of Descartes, repeated several times in 1648, while waiting for the execution of the project, leaves no doubt concern-

ing the fact that he had really conceived the idea during his conversation with Pascal. The whole question, therefore, is to know whether Pascal was from the first as favorable to the idea as Descartes, or if he had not, on the contrary, hesitated to follow his counsel. This is, according to M. Mathieu, what is shown by known facts.

Mersenne had for a long time been opposed to the column-of-air hypothesis. But some notes written by him between the eighth and the thirtieth of September, 1647, show that he was suddenly converted to the idea that the mercury is kept in the barometric tube by the weight of the column of external air. And he declares that the way to settle the question is to make the experiment simultaneously in several places and at different altitudes. Who, therefore, could have given him this idea, Pascal or Descartes?

At this time (October, 1647, to be exact) Pascal published *Expériences nouvelles touchant levide*, in which he relates how he repeated Torricelli's experiment with a long tube, full sometimes of wines, sometimes of water; how he had experimented on the vacuum with a plugged syringe, whose piston he drew under water, etc. In this book there is not a word about the weight of the column of air. His only conclusion is that, if nature abhors a vacuum, "the force of this abhorrence is limited, and equal to that with which water at a certain height (about thirty-one feet) tends to run downward." In his letters to P. Noel at the end of October, he does not inform him of the explanation of the phenomenon by means of the column of air: this is, indeed, mentioned, but by P. Noel and not by him!

Moreover, he does not even then admit that the air may have weight; for one of his experiments is designed to prove that an empty syringe plunged in mercury weighs the same as when it is full of air. Therefore it was not *he* who at this time suggested the contrary to Mersenne.

But it is probable that the suggestion came from Descartes: he had just returned to Paris at the beginning of September, and his return therefore coincides with the change of attitude on the part of Mersenne. It cannot be doubted that Descartes was at

this time persuaded that the phenomenon was due to the column of air. In his letter to Mersenne on the 13th of December, 1647, almost a year before the experiment was made and when no one was thinking of it, Descartes asked in unmistakable terms, if Pascal had performed the experiment which he had suggested to him to see "if the mercury would rise as high on the top of a mountain as it stands at the base." There could be here no question of a mistake; the statement is explicit; and Descartes twice repeated his question in the course of the year 1648.

In the meantime the experiment of "the vacuum within the vacuum" was performed by Auzout. In a barometrical apparatus, with an opening on the side which was closed by an airtight film, Auzout placed a second barometrical apparatus in which, of course, the mercury did not rise naturally. But as soon as the lateral film had been pierced with a pin, the air entered, the mercury went down in the large apparatus and rose in the small one. The experiment was performed, according to all probability, between the 1st and the 12th of June, 1648. It convinced Roberval. Some days afterward in a public lecture, he adopted the hypothesis of atmospheric pressure which he had until that time opposed.

Now, it is exactly at the same time that Pascal distinctly declares himself a partisan of atmospheric pressure in a letter to La Pailleur; and he adds the following words: "We are waiting for its confirmation by an experiment which ought to be made on one of our highest mountains; but this I cannot hope for soon, as I learn from letters sent in reply to some which I wrote six months ago that the snows render the summits of these mountains inaccessible."

The Puy-de-Dôme inaccessible in the month of June? Or even in the preceding months? That is improbable. It would have to be an exceptional year; but not only is there no mention of this in Fuster's meteorological report, but there are letters from Mersenne and Descartes, written in the spring of 1648, in which both (the one in Holland and the other in Paris) speak of the beautiful weather and the unusual heat of that year.

And how, on the contrary, it is easy to explain that the experi-

ment was not made until the 19th of September, 1648, if it be true that Pascal did not really decide to ask his brother-in-law to carry out this verification until June following Auzout's experiment!

These doubts are confirmed by an examination of the pamphlet published by Pascal in December, 1648, the same one that he did not think proper to send to Descartes: *Le récit de la grande expérience de l'équilibre des liqueurs*. At the beginning of the work there is a letter said to be written by Pascal to Périer, on the 15th of November, 1647. Is it authentic? He there explains that in his book of the preceding year, entitled *Expériences nouvelles*, he has not told all his thought, and that he thoroughly believed in atmospheric pressure when that was written, although he had not spoken of it. He relates to Périer, in amazing words, the details of an experiment which he is reputed to have made *with him* some days previously, and therefore in November, 1647. And this experiment is, according to the description, exactly the same as Auzout's experiment which everybody considered new in 1648, and which then settled the question decisively. That is almost impossible. But that is not all. The experiment which Pascal describes is, indeed, *in the main* that of Auzout, but he adds to it some singular details. Auzout filled at first all the apparatus, then he emptied the outside tube to obtain the vacuum, and finally he let the air re-enter to restore the pressure. Pascal speaks of something quite different: he says that the mercury of the inside tube stood *at first* at the usual height, then it was lowered by degrees in proportion as the air all around was taken away; and finally that "this height or suspension of the mercury increased or diminished according as the pressure of the air increased or diminished." But it is impossible to make the experiment in this way except with the air-pump, which was not at that time invented; and Périer in his *Nouvelles expériences*, which he published in 1663, calls attention to the fact that before Otto de Guericke, the only way known to create a vacuum was by first filling the receptacle with mercury, and then letting a part of this run out from below. The experiment described is therefore fictitious.

Pascal, moreover, in order to firmly establish his rights and

priority, assures us that at his request Mersenne had written as early as November, 1647, to several foreign correspondents to engage them to take part in his experimental project at the Puy-de-Dôme. But, says M. Mathieu, none of these letters can be found, even among the papers of Huyghens and Hevelius, who were constant correspondents of Mersenne, and who were in the habit of preserving very carefully all the scientific letters which they received. In addition to this, none of the letters received by Mersenne at this time and in the following months make any mention of this communication. Furthermore, Mersenne wrote on the 4th of January to Le Tenneur, who was living at Clermont, and asked him to make the experiment in question; the same day he wrote to Huyghens, and, speaking of the peak of Teneriffe, added incidentally that, if he had such a mountain near him, he would climb it immediately "to see if the vacuum would be greater or less than here." In neither letter does he speak of Périer and Pascal; that is not compatible with the mission with which the latter claims to have charged him.

M. Mathieu's last argument is bibliographical and somewhat subtle. Pascal's pamphlet, *Récit de la grande expérience*, which he did not send to Descartes, is extremely rare. M. Mathieu knows only three copies of it. It was placed in trust with Savreux, that is to say, said M. Mathieu, "with an obscure seller of Catechisms," where no one would dream of going to look for it. Moreover, it is almost never cited by contemporaries. In 1651, Pascal, enumerating his scientific works in a letter of candidacy to the Academy, does not mention it. M. Mathieu supposes, therefore, that he did this intentionally, that he concealed for several years the edition of his *Récit*, for fear that his bad faith would be discovered in the lifetime of Descartes. And in confirmation of this hypothesis, he cites a certain number of controversies in which Pascal, according to him, had certainly lacked in sincerity. This was remarkable in the case of Torricelli, whose name he omitted by pretending to be ignorant of it, although he knew it very well, and again in regard to Magni, whom he tried to denounce as a plagiarist, by attaching a false date to his work. M. Mathieu concludes by saying that the

pretended letter from Pascal to Périer is a forgery, both as to its date and its content; for it ought to be dated in the month of June, and it was written for the public, and not for Périer, in order to try to rob Descartes of the honor of having had the first idea of the experiment of the Puy-de-Dôme, and to take away from Auzout the invention of the experiment of the vacuum within the vacuum, which, moreover, is itself falsified.

By this conclusion, M. Mathieu explains in the last place the "conspiracy of silence" which, according to him, from that time forward was formed about Pascal. His attempt at fraud, he thinks, was recognized by scientists, and, with the exception of some naïve persons who were not acquainted with the story, all the more important thinkers, during the whole of the seventeenth century, refrained from speaking of his physical experiments. It was only at a later time, in the eighteenth and nineteenth centuries, that Pascal's treachery was successful, and that his claims were accepted as true by scientists and philosophers.

It will be difficult for readers of the REVIEW to imagine the impression that this series of articles has produced on the philosophical public in France, and likewise on the educated public in general. Pascal is a kind of saint for a great many cultivated men; his genius, his suffering, and even his eccentricities have always greatly impressed the imagination. That austere environment at Port Royal, where he ended his life, envelops him with an atmosphere of seriousness and nobility, and continues to enhance his reputation. And while he is for believers one of the most effective apologists for Christianity, the religious persecutions which his party has suffered have made him, from another point of view, a representative of intellectual liberty and a sufferer for its sake. In this sense, inasmuch as he is the implacable enemy of the Jesuits, Pascal is almost popular, for the Jesuits are greatly disliked by the great mass of the people. Their very name is generally taken as an insult; it is always a synonym among the common people for bad faith and treacherous cleverness. Pascal has greatly contributed to this opinion by his *Provinciales*; and, accordingly, as a result of contrast, he himself became a synonym of sincerity, frankness, and absolute integrity.

It is well known what Chateaubriand and Sainte-Beuve said of him. M. Brunschvicg, who is his latest editor, wrote that his *Pensées* "reveals a writer who has had no superior in France, and a thinker who in modern times has not been surpassed for profundity. Moreover, this work expresses at the same time the the most lofty and heroic spirit of charity" (page 302).

No one who has studied the *Pensées* has escaped the extraordinary influence which it exercises upon the mind. M. Boutroux, in the volume which he devoted to him in 1900, began his work with this short preface which I must quote entire :

"Pascal, before writing, knelt and prayed for the power to yield up all that belonged to him, in order that strength might be added to his weakness. By humiliation he prepared himself for inspiration. It seems that he who wishes to know such a high and rare genius in his inmost nature, ought to follow an analogous method, and, while using according to his power of erudition analysis and criticism, which are our natural instruments, he ought, in a docile surrender to the influence of Pascal himself, to look for the inspiring grace which alone can give to our efforts direction and efficacy."

M. Paul Desjardins has recently written a little tract on sincerity in polemics, entitled *Les règles de l'honnête discussion selon Pascal*. Some months ago there appeared under his editorship the first number of the *Calendrier des serviteurs de la vérité*, a journal dealing with great examples of courage and intellectual integrity ; a reproduction of the celebrated cast of Pascal, was used as a frontispiece.

In view of such a state of mind, M. Mathieu's accusation has produced the greatest astonishment. All conversation in philosophical circles turns on the scientific probity of Pascal. The daily papers themselves have reported these attacks ; I do not believe that any question of history has ever caused such a commotion. M. Abel Lefranc, professor of French Literature in the College of France, was the first to reply to these attacks. He defended Pascal in four articles which appeared in the *Revue politique et littéraire*,¹ and which were afterwards combined into a

¹ August 1, 18, and 25, and September 8, 1906.

little book. The epigraph of this work, "Cujus gloriæ neque profuit quisquam laudando nec vituperando quisquam nocuit," is itself very characteristic of that worship of Pascal of which I spoke above.

M. Mathieu accuses Pascal of having printed the *Récit de la grande expérience* for form's sake only, and of having got out a very small number of copies, and concealed them, so to speak, with an obscure bookseller, so that after Descartes's death he could resurrect them to do honor to himself. He bases his argument on the scarcity of copies of the work in libraries, and on the fact that Pascal had no reason to place his book with Savreux. This whole argument is without weight, for, in the first place, all the pamphlets of that time are very rare; for example, the original edition of the *Cid*, notwithstanding its popularity. The pamphlet in question, which only contains twenty pages, might easily disappear, for a great many libraries took but little care of pamphlets. Besides, M. Mathieu has exaggerated this scarcity: in Paris alone, three public libraries contain fine copies of it. Finally, Savreux, far from being an obscure bookseller, was the official publisher of the Jansenists; he was thrown into the Bastille for his attachment to their cause and was buried at Port Royal. All these facts are mentioned in the third volume of *Port Royal* by Sainte-Beuve. He was therefore the publisher to whom Pascal would most naturally address himself. And if he did not send his book to Descartes, it was because he did not have his address, which the latter did not willingly allow to be known, and because Mersenne, who usually served as intermediary, had died just as the experiment was performed. It is claimed that Périer might have made the experiment in the month of November if he had been asked to do so. But is the delay inexplicable? By no means; for in November Périer was called on service to Moulins, whence he returned probably to Paris, and did not arrive at Clermont until the end of June, 1648, or later. But on his return he had more to do than climb immediately the Puy-de-Dôme. It was necessary to make arrangements with some friends who took part and assisted him in the expedition; these were P. Bannier, Canon Mosnier, Councillors La Ville and Bégon, and Doctor La Porte. M.

Abel Lefranc estimates that these preparations alone would occupy him until about the middle of August, and that it was at this time that the unusual heat is reported of which Périér speaks, and which retarded the experiment until September 19. Moreover, perhaps Périér by reason of his duties was not free every day; one may judge so from a passage of his letter. Thus the delay is very well explained without assuming any knavery. Concerning the fact that Pascal does not mention his *Récit* in his letter of candidacy to the Academy, the reply is not less decisive. The Academy at that time was nothing but a society of mathematicians, and Pascal in his letter only enumerated his mathematical works. As regards the so-called eclipse of Pascal's scientific reputation after this affair, the defence is equally excellent: Carcavi, Fermat, Huyghens, Gassendi, Rohault, Chanut, Leibniz, and Mariotte have all spoken very eulogistically of Pascal and his experiment. There was therefore no "conspiracy of silence," and the disrepute of Pascal appears entirely imaginary.

Finally (and this is not the weakest of Lefranc's arguments), if Pascal had misrepresented the facts, the complicity of Périér, who was a very honest man, of Jacqueline Pascal, and of their friends, would have been necessary. Is it morally probable that they connived at allowing without protest such a culpable act of egotism and bad faith?

In addition to this able defense by M. Lefranc, the Pascal affair has also called out an article by M. Brunschvicg, in the *Bulletin* of the "Union pour la vérité,"¹ and two articles by M. Duhem in the *Revue Générale des Sciences*². Having explained at great length the two sides of the argument under discussion, I shall say only a few words about these articles.

M. Brunschvicg avoids the tone of a defender. Although he is Pascal's editor and has much sympathy with his author, his main interest lies in examining both sides of the case. We recognize that Pascal's letter to M. de Ribeyre, *à propos* of Magni, is a "tissue of inaccuracies;" but he also shows that it can be

¹ "A propos de Pascal et de l'expérience du Puy-de-Dôme," June-September, 1906.

² "Le P. Mersenne et la pesanteur de l'air," September 1 and 30, 1906.

otherwise interpreted than as deliberate bad faith. He points out that M. Mathieu has often been unwise in his conclusions, and that he has neither examined all the texts nor considered all the hypotheses. But, on the other hand, he does not conceal the fact that Pascal had a very bad character, and that occasionally he became so angry that he lost his judgment. The conclusion is that we have still a great deal to learn of this affair, and that it is very unfortunate to have prejudged Pascal by a sensational charge.

As to M. Duhem, he deals with Pascal only incidentally. The real object of his articles is to study the development of Mersenne's ideas regarding atmospheric pressure, and to reclaim for him the project of the experiment on a mountain. Mersenne was, he confesses, a blundering, methodless soul, but was, on the other hand, full of imagination and ardor. It is undisputed that he was the first of all to mention the project in question in a text of certain date (between the 8th and 30th of September, 1647). M. Mathieu says that he got the idea from Descartes. That is possible; this same text speaks of recent experiments on barometric variation, at that time unexplained, in which Pascal and Descartes took part. But Mersenne was quite capable of inventing it all alone, his book is full of ideas and projects of the same kind, some of which are absurd and others excellent. Why should he not have guessed accurately this time? But what about Descartes and his repeated demands? He also had the same idea in mind and he believed that he was the only one who had it. In 1647, this idea of making an experiment on the top of a mountain was 'in the air,' just as that of atmospheric pressure had been fifteen years earlier, when Descartes, Baliani, Jean Rey, and Beeckman spoke independently of it, almost at the same time, between 1630 and 1632. "As Descartes had conceived the idea of this experiment without the aid of others, he concluded that no one could think of it without his assistance; his inordinate pride led him to this conclusion."¹ Pascal was likewise able to think out this experiment himself, and also imagined in good faith that no other per-

¹ *Loc. cit.*, p. 816.

son had thought of it. "Let us not passionately dispute the question of priority with regard to these different discoverers through whom the idea, when it had reached its development, found expression at almost the same time. Does the grain which is germinating plagiarize the grain which germinated an hour earlier in the same field?"¹

These are wise words and a timely reminder of a great truth in the history of science. But they do not serve to solve all the historical difficulties so cleverly raised by M. Mathieu any more than do the methodological reservations made by M. Brunschvicg. How much there is in this matter which still remains suspicious! There is no trace of those Mersenne letters to foreign scientists, which Pascal declares were written at his request; no trace of their replies, unless we except a very vague passage from Huyghens, which could just as well be applied to something else. It is difficult to interpret the letter to Le. Pailleur in June, 1648: If the delay in performing the experiment was due to the fact that Périer was at Moulins and afterwards at Paris, why does Pascal give the inclemency of the season as the cause of this delay? There is finally the mention of Auzout's experiment, which remains up to this time, together with the claims of Descartes himself, the most serious of the arguments in the accusation, and that upon which the least has been said; for the *Traité de la pesanteur de l'air*, which M. Brunschvicg cites, and in which the question of this experiment is raised anew, can only increase the difficulties pointed out above. Nevertheless, one might be able to find some explanation favorable to Pascal: perhaps he sucked out the air with his mouth; perhaps he may have rarefied it by means of a syringe, since he had already used that instrument in other experiments. Although all this does not agree with the exact terms of his description, one might admit that he yielded to the desire of expressing things in a more systematic and striking manner. But, on the other hand, these hypotheses have also a weak side; they would apply excellently to a public work, but are no longer comprehensible in the case of a letter to a friend, who was himself a witness of the experi-

¹P. 774.

ment ; finally, they do not explain the fact that this experiment, which was so decisive, was not known until eight months afterwards in a more imperfect form, and that then it was attributed to Auzout.

Thus the question has not been settled, and we shall perhaps see articles still appear on the same subject.¹ But even if the letter to Périer was changed or entirely written for the public, after the date which it bore, there are two things still to be taken into consideration. The first is that accuracy of documents is something modern, like the respect for texts and the historical sense. All literature, until almost our own time, was full of false claims. Whether through pleasantry, or prudence, or in order to accentuate the effect of a publication, the name of the author, the place, or the date might be altered without scruple. The *Provinciales* themselves show examples of this liberty which no one thought of criticising at that time. The same may be said of the alleged letter from Etienne Pascal the father to P. Noël. The second point is that Pascal at the time of the experiment on the vacuum was a young man of twenty-five years, passionate, violent, eager for glory, and perhaps neurotic enough to forget involuntarily and in good faith what he did not wish to remember. Examples of such systematic amnesias are not rare, even among men better balanced mentally, and the letter to Ribeyre shows some probability of this. He was not at that time the Pascal touched by grace, who retired five or six years later to Port-Royal and devoted himself wholly to the service of God. How many great saints there are in the Golden Legend, who in their youth committed sins which are both better authenticated and more serious in nature than those ascribed to the author of the *Pensées*!

ANDRÉ LALANDE.

¹ Since this account was written, M. Mathieu has published four new articles in the *Revue de Paris* (February, 1907, and the following numbers) in which he replies to the criticisms directed against his previous articles. M. Brunschvicg has also published a paper entitled "Pascal a-t-il volé Auzout?" (*Les débats*, May 1, 1907.) The general review of the discussion which has appeared in the *Revue de synthèse historique*, by M. Rey, and also that in the *Revue scientifique*, by M. Mentré, may be consulted with advantage.

THE EGO AND EMPIRICAL PSYCHOLOGY.¹

I SUPPOSE I should apologize for adding one more to the many discussions of the self. My apology, if I present one, must be that it seems to me there have been, even in recent writings, several quite obvious errors into which most of the discussions have fallen, and I presume it requires less arrogance to point out the failings of others than to essay a positive construction, although I do not promise to spare you an attempt at construction altogether.

This is above all a field in which each theory is strongest in the attack. Two difficulties have pervaded practically all discussions of the subject of late. In the first place, the opponents do not accept the same methodological principles. The *soi-disant* structuralist is concerned only with the self as a concrete experience. He solves his problem with a decision as to whether one can or cannot find a self or self content in the actual concrete conscious stream. The opposing view bases its arguments upon the needs of explanation. It is concerned with what must be assumed as the foundation of the experience immediately given. The argument refers to what must be, rather than what is. Its question is not, Do we find the self-structure? but, Do we find anything in the immediate mental experience that compels us to assume a self as its presupposition? Obviously before one can harmonize the conflicting opinions of the two schools one must force them to some common basis. The necessity for compromising on methods of procedure is greater, too, because the generally accepted conclusions of the two schools seem at present diametrically opposed, and both seem to prove their point conclusively. Authorities are generally inclined to admit that we find no trace in the concrete stream of any structure that complies with the specifications ordinarily prescribed by paper architects of the self, while the weight of authority seems also turned to the opinion that we need in consciousness more than the elements

¹ Read as the Presidential Address before the Western Philosophical Association, at Chicago University, March 29, 1907.

that observation immediately reveals, if we are to make the operation conceivable. If we accept provisionally the positive results of both theories, and grant that either empirical presence or logical necessity may justify existence, our troubles are not over. A second equally important difficulty is, that the advocates of the second method of investigation are all too uncritical toward the axioms they accept, and too ready to believe solutions that are suggested, without sufficiently scrutinizing the conclusions that may actually be deduced from the premises. Often thought seems to give way to emotion when the discussion of the self is reached, and sometimes the self-construction is welcomed as a means of avoiding conclusions, admitted to be adequate from other premises. So Professor Calkins is satisfied of the correctness of the modern conclusion that will is no peculiar aspect of consciousness, but believes that a self is in some way conscious of a difference that we cannot find. Similarly in other authors the self seems an 'open sesame' for all closed doors, an alchemist's universal solvent for all difficulties. When one has attained to the state of grace of admitting a self, one seems often to consider oneself freed from all bonds of logic and no longer accountable to the ordinary laws of thought or methods of investigation.

It will be my task, in this first part, to subject the doctrines of the self to a rigid scrutiny in two respects. First, I shall examine the axioms or felt needs upon which the construction is based; and, secondly, I shall endeavor to decide how far the solution ordinarily attained really satisfies the demands. Of the reasons that have been given for assuming a distinct mind, three are most prominent: (1) For the known there must be a knower; (2) the mental states can receive unity only from a unitary substance, and that we do not find in mental states; and (3) in a series of discrete mental states, such as Hume assumed to constitute mind, there can be no continuity, no real identity. Of the first of these we ask, Is it a real axiom at all? Of all we question, Are they satisfied by a self of the detached character? The axiom that 'everything, to be known, must have a knower' may be and has been questioned as to its validity. True, in a common sense, dualistic way, we know nothing of the objects about

us without being ourselves present. Our bodily presence is essential to knowledge. This, as Professor Fullerton has pointed out, is the only conceivable way in which an axiom of the kind could originate, the only other possible application of the axiom in question. One may ask, however, whether the relation holds of anything more than the physical spatial relations of body and object. There is no evidence that the same relation would hold within consciousness. It does not follow that, because you must be present to have an idea of a tree or other external object, there must be something else present in consciousness to know that image. The two are on an entirely different level. Moreover, if the analogy hold, any other than a naïve dualism would probably be estopped from accepting the axiom, even with application restricted to the relation between an external world and the knowing mind. If the origin of the axiom of a knower be this relation of body to object, or of mental stream to object outside, it is very interesting to note that it has persisted frequently after the interpretation that gave rise to it has been abandoned. Now that we find not infrequently that no distinction is made between the existence of an external object and its being known, no distinction between its existence in the mental stream and its real existence, we should expect that the self-evidence of the axiom might at least be weakened. On the contrary, some of the writers who feel most keenly the advantages of obliterating the old distinction between knower and known in the more objective relation, seem most loath to give up the axiom derived from that in its application to what we might call the inner hypostatization; they still argue for a knower to know the content of consciousness, although they believe there is no necessity for a known and a knower relation between outside object and mental stream. Moreover, if we are to accept this view in its entirety, it would be immediately destructive of knowledge of self. We must have either an infinite regressus of knowers for each of the lower series, or we must assume that somewhere there is an element that is at once knower and known. If the knower and known can thus be united in one member of the series, there is no reason why we should not assume that they are united at once

in the first stage in the process. If there is no need of the tenth or millionth member in the regressive series, there is no need of the second. Even granted the existence of a knower, it is by no means easy to see how it can know the mental states. It must either take the mental states over into itself as mirror pictures, and then the problem comes as to how the knowing goes on; or it must leave them unchanged, that is to say, unknown. The representatives of mental states are in no different relation to the self, when thus absorbed, than the elements of the stream to the stream itself, and these are not known according to our original axiom. Even the infinite regressus discussed above takes us no nearer the problem; it merely postpones its consideration indefinitely. At no stage is there any explanation that could not be applied equally well to make one distinct idea in the stream know the others.

The argument from the demand for unity in the conscious series similarly seems to lose much force if we ask how unity is given by the self. It is all very well to say that mental states are unified in some way, that they are not mere discrete elements in the series of experience; but it is not so clear that unity of any kind could be given by a unitary something placed beside or above the stream. If the mental states are discrete in themselves and are to be unified, they must be taken up in some way into the unitary subject, and that must by definition destroy its unity. Mere propinquity with a unitary something cannot conceivably give unity, and of the unifying somewhat we have the same problems and the same difficulties that face us in solving our difficulty where first the problem arose.

Almost the same remarks apply to the argument that would have the self give continuity to the discrete stream, that would make it the basis of identity amid change. Neither continuity nor identity, as an effective phase, would be in any way explained by the presence in or above consciousness of a unitary substance. That might be present and the other elements be discrete. Unless the elements of content work in some way upon the self and it in some way upon them, there is no identity for them in any real sense. There is no conceivable way in which identity can be

given them by any added something, unless they become part of it or it part of them. In either case, it loses its absolute identity as well as its unity. If we regard the states, again, as receiving identity from being taken into the unitary substance, then apparently the principle of persistence must again come from some relation between the elements themselves or between the permanent existing substance and its contents. Mind then becomes itself changing, and it is just as difficult to conceive how changing, interacting elements could take on the consciousness of identity with themselves in spite of change inside of or beside an unchanging somewhat ever identical with itself, as it is to see how a series might always be identical with itself through mere continuity of the elements.

If we summarize the three advantages that are claimed for asserting the presence of the self above or beside its content, we find that, examined closely, these advantages disappear. They are verbal rather than actual. One can no more conceive a knower knowing the elements of knowledge than the mental states knowing themselves; and besides, some element must know itself, unless we are to have an infinite regressus or an unknown term. The unity of mental states is no more conceivable with an absolute unitary substance in or beside the states than would be the unity of the states themselves, uncontained or unaccompanied. Twenty marbles are not unified when put into a bag, or when a baseball or (to consider the airy content) a football is put with them. And the persistence of the substance always identical with itself does not immediately account for the fact that all experiences seem to belong together, to be all my experiences. When we have the immediate content all carefully taken up into the self as ordinarily pictured, we have all our problems over again in their original guise. The assumption that there is some advantage in the presence of the unitary subject is an analogy, a picture, and the details of the picture are not worked out sufficiently to be helpful. If we are compelled to have recourse to an act of faith, we may just as well solve all our difficulties at once, and assert that the mental stream knows itself, is of itself unitary, and always identical with itself. Solution of

the problem with the self assumed is no easier than it was when we first approached it on the known empirical level. The solution ordinarily offered tends to hide difficulties, not to solve them.

If we are driven to the conclusion that there is nothing in the construction that would satisfy our logical need by putting a self of any character in or above the concrete mental elements, we have cleared the way for an attempt to find characteristics in the mental content that give rise to the demand and serve to make conceivable the processes. As I conceive it, the whole problem of the self and its relations arises from the fact that structure and function do not correspond, that there are certain characteristics of the action and general accomplishments of mind that cannot by any analogy be ascribed to the structures assumed to exist in mind. The broad general accomplishments of mind do not harmonize with the asserted capacities of the structures upon which most stress has been laid in the more usual concrete descriptions. We may for a time keep structure and function divorced, and assert functions for which no structure is assignable, but this is at best a temporary expedient. Before our problem is complete, structure and function must be brought together and made parts of a single whole. The hypothesis already considered attempts to set up a conjectural structure that should take over the functions not assignable on analogy to the elements directly and scientifically analyzed out. This we have seen to be unsatisfactory, and probably such constructions always will prove unsatisfactory, because there is no possibility of testing their truth or adequacy. In fact, it is made *ex hypothesi* incapable of accurate observation. The result is that a premium is set upon poetic vague imaginings rather than upon careful observation or even logical, self-consistent reasoning from the premises accepted. While, then, the first or functional psychology ordinarily falls short in the attempt to develop a structure that shall be adequate to the function assigned, the structures ordinarily analyzed out by structural psychology will not explain the functions that we find mind capable of when viewed in the large. Our problem must be to steer between the Scylla and Charybdis of the two theories.

The classic attempt of Hume to explain experience by discrete ideas is the man of straw for all comers and deservedly has been much buffeted about. If one holds to any similar view, the only consistent course is to deny the logical need of a self and to assert that we should remain upon the empirical level with no attempt to go beyond to satisfy logical needs or to explain mental functions. This, we already have seen, is by general consent unsatisfactory. It would be a sad commentary upon modern investigation were there no results since Hume that throw light upon the problem from the concrete, factual side. It behooves us, then, on the constructive side of this paper, to turn to the known nature of mental processes to see what there is that will illuminate the deeper connections of mental states.

In beginning the investigation, I shall accept two general principles: First, that one may expect to find no direct evidence of self, but that the need for unity and identity of mental states is a real need, and that the problem of how mental states are known is a real problem. The needs must be satisfied, if possible, even if we have recourse to construction on the basis of fact. Keeping these guiding principles before us, let us turn to an examination of the results of modern psychology. If we ask what there is that gives permanence first and then unity, we may find a clue in the fact that an experience once present does not vanish, as is often assumed, but there is some evidence that it persists as a dynamic force in consciousness from the moment of its first entrance to the end of life. That an experience may have an effect when there is no possibility of definite recall, seems one of the striking results of many of the memory experiments that have taken so much of the psychologist's time in the last few years. Thus Ebbinghaus and many others have found, you remember, that many associations years old, of which there was no trace in the ordinary sense of spontaneous reinstatement, could nevertheless be brought back to consciousness with surprisingly few repetitions. In fact, there are some respects in which these older, long deposited connections and experiences are more effective than those more recently acquired. One need not assume with the older men that an experience is never lost ;

but we can assert, on definite evidence, that there are secondary after effects of mental processes long after possibility of return as a specific process has ceased, and it is no great extension of the evidence to assume that consciousness is always in some degree different because of any experience, no matter how remote in time that experience may have been.

Not only, however, is it possible to prove that these old impressions exist, by the fact that they can be reinstated with greater or less difficulty, but it is also probable, as I have attempted to show in some detail in a recent work,¹ that they are active in some degree in the control of later mental operations of widely different character. There are many facts that compel the conclusion that attending is very largely determined by organized groups of earlier experiences, that what we shall select at any moment from the external world is decided by the number and character of earlier experiences whose traces are left in consciousness. These work somewhat inversely in order of remoteness, but it is difficult to assert that any earlier experience is not in some degree effective in choosing between the different bits of material that offer themselves to consciousness at a given moment. Similarly, the course of ideas returning through association is controlled by these earlier experiences. Much emphasis has been laid by Külpe and his pupils upon the purpose in mind at the moment, or upon the task that has been set by another, in deciding which one of the many possible associates shall be actually effective in the control of consciousness. Thus, if asked in general to name particular instances, the word 'dog' will suggest some particular pug, while if the task be to assign class, some genus will leap out just as quickly and certainly. But one may go farther and find an explanation of the purpose in the organization of earlier elements of experience, recent or remote, and one can go back to show not merely that the associations are themselves the product of connections of earlier experiences, but that more general groupings of earlier mental events are effective in bringing to complete activity some one of the separate connections against all others. Not one simple connection determines

¹ *L'attention*, 1906.

the course of thought at any step, but vast masses of experience act together in the decision.

In perception these earlier experiences are active in two ways : They furnish the material in terms of which the entering impression is interpreted, and at the same time control the interpretation that shall be made. As I have had occasion to insist in earlier papers before this society, while we perceive any object, we constantly refer from the thing presented to standards that have been developed in the course of earlier life. As we look or listen, earlier experiences at once give the interpretation that makes the object mean something to us, and determine which one of the many possible interpretations shall be made at this particular time. Both are in a measure organized in advance of their action. The types have gradually precipitated from numerous different observations and the purposes, particular or remote, have resulted from the numerous appreciations of needs by the systematization of manifold recent or early experiences. We find that in looking we naturally fall into a scientific, shop attitude, into a social or playful attitude, and that perceptions take a corresponding form : interpretations result that correspond to the mood. But the scientific attitude has developed with scientific knowledge, and the objects that we see are the products of numerous earlier observations in the same general line. The bare perception of the moment is never a bare sensation, but is always a focal point about which vast numbers of older experiences center, and each of these older experiences contributes something to the quality of the total momentary perception and has some share in determining what it shall be.

We may run through all the other phases of mind in the same way and show that each momentary mental state is not discrete, not transitory, but merely a new and different emphasis of some part of the total, an emphasis that is in part dependent, it is true, upon the existing stimulus, but not determined by it. Thus reasoning, judgment, meaning, and belief go back for their explanation, not to bare physiological association, but to the dynamic controlling force of the entirety of experience directed for the moment to the attainment of some particular end, an end that has

been foreshadowed in, and whose ideal attainment is directed by, our knowledge working as a whole. Action and emotion, will and feeling, we may insist, go back to exactly the same forces. Action always results from stimulus, from sensation, not perhaps as the isolated outcome of the presence of a definitely outlined sensation to mind, but as determined by all of these influences that are at work in deciding the nature of perception and reasoning. The control of action is primarily control of sensation, and control again in terms of the same group of remote experiences that is effective in attention, in perception, and in reasoning. Even if no sensation actually precede the movement, as Woodworth has contended may be the case, nevertheless all the preparatory and reinforcing operations go on and determine that the movement shall take place when a certain stimulus enters and the stimulus acts for the time-being as a sensation. In every case the act is the outcome of a smaller or larger number of coöperating earlier experiences. When the action is expressive of the fullest self, much or all relevant knowledge is at work; when the act is impulsive, ill-considered, few and partial experiences are in action. Feeling and emotion, too, have been considered as the correlate of this interaction. Either the doctrine of the opposition or furtherance between new and old experiences, or a frank assertion, as in Wundt, that feeling is the mental side of a general interaction, characterizes many of the theories of feeling that have flourished in the history of psychology. All would make explicit recognition of the interaction of experiences long gone in the explanation of the feeling states.

In every mental act, then, we may find an illustration of the fact that experiences do not vanish entirely, and, moreover, that they always seem in some degree to exert an influence upon other and later mental states. These effects, taken together, seem sufficient to give two of the necessary presuppositions of experience, unity and identity. We have unity in mind, because all experiences, past and present, interact in the control and constitution of every apparently discrete act. Not merely, as Professor James insists, do two or three succeeding states unite in a single one, but in some degree or other all experiences, no matter how

far separated in time, combine into a single element in each moment's experience. The unity grows with each added element, is enriched by each new phase of multiplicity. It is, moreover, dynamic, not static, since it not merely takes up into itself each added element, but directs and controls what shall enter at any moment and the response that shall be made to it. There is continuity also, not the continuity of a passive, unchanging on-looker, but of the active, all-absorbing kind. The first elements are retained forever and are constantly growing with each later experience. Not that there is one element identical among many changing elements; but we may rather say with the Eleatics, that the apparent differences are but phases of the one identical whole. The change is in part real, but in greater part is merely a new expression of elements that have been present from the beginning. It is an identity from which nothing is ever lost, and which persists with, if not through, growth.

This unity and identity is not only constructive but actual. The persistence and mutual interaction of experiences seem to carry with them a recognition of self-unity and self-continuity. For this we have the best evidence in the much-quoted instances of alternating selves. If we may be permitted in advance of the author to interpret the case of Miss Beauchamp, it is found to be in perfect harmony with our assumption that where earlier experiences are joined in a single unitary process, there is a unitary self. If we examine each of the dissociated selves, we find different experiences, different accomplishments, different organizations of older associations for each. One remembers within but one single group of experiences. This means primarily that associations are found or retained between certain elements of experience, not all. There is dissociation which prevents recall from one system to another but still permits recall within any given system. The dissociation is not complete for early acquisitions, *e. g.*, language, the names of familiar objects, etc. All the associations that pathology in general assures us are more fundamental, persist from one to the other. But, for our argument, what is most important is that the entire character of the self changes with the change in the effective group of experience. The habits,

interests, desires, actions, all are distinct in the several groups of experiences. So B_I , B_{IV} , and Sally are bundles of different forms of knowledge and have a character in harmony with that knowledge. B_I keeps the refinements of the family in tastes of all kinds and in knowledge. She has the book learning and keen appreciation of people and their opinions. As a consequence, we may assume, she has bookish, cultivated interests, is over keenly alive to the opinion of those about her, and responds accordingly in reasoning and in action. B_{IV} seems to have taken over fewer of the refinements of the total self; her knowledge is of the more practical kind, and her appreciation of social demands and the rights of others is slight. With these different memories goes a character of thought and action entirely distinct. There is a selfishness and stubbornness at once indicative of strong instincts and slight guidance by accumulated social comprehension and knowledge. Her interests and knowledge are at one with the memories that predominate. Sally, again, in extremer degree, is all primordial instinct with very little control by accumulated knowledge. She seems to have kept none of the later and more complicated attainments of the original self; her life is the life of a child, application of any kind is difficult, for there is no developed knowledge to restrain or control the impulse of the moment. In spite of the most persistent existence of any of the characters, she is least developed of any, least worth keeping alive as a member of society. This is what one would expect on the basis of the hypothesis that the mental experiences, recent and remote, control later actions and serve to unite them with themselves. Where all parts of early experience act on each new element, there is unity in the self and constant self-identity. Where the earlier experiences are divided into separate systems, the self lacks unity; there is no longer identity from moment to moment, but unity and identity only within the one partial system. One system seems to itself and to the observer an entirely different and distinct self from the other. The nature of the control each exerts in every form of mental act is different from that exerted by any other and harmonizes with the nature of the experiences that group to constitute it. There is a break from system to system,

not only in memories but in the self feeling, and in the self as an active, directive agent.

Nor do we need to look to these pathological cases, relatively rare, for our only evidence. In every individual some degree of dissociation is present with its corresponding different self or phase of self. In one's own home one's acts and feelings may be different in many respects from those in the home of an acquaintance. As one thinks or speaks in a professional capacity, one's self is different from the self as one thinks and feels in a social capacity. If we look to the cause, we find different experiences clustered about the core offered by the matter under consideration, and these control the course of the action. Few physicians can be trusted to keep their impersonal, scientific attitude when treating members of their own family, and I imagine few psychologists carry their theories of thought and action to the extent of interpreting the play processes of their lighter moods. When the dissociation disappears, the control is again in terms of the total experience, and the whole self reasserts itself. With reappearance of continuous memory, there again comes control by all factors that can be recalled. Control is apparently always exercised by all those processes, and only those that are sufficiently connected to render associative recall from one to the other possible. Always, whether in partial separation of the selves in the normal individual, or in the more profound dissociation of hypnotism or of alternating personality, there is some greater or smaller mass of controlling experiences that is common. A man's business and his friendly attitudes towards life and morality may be different, but there are always some bounds that he will not pass; there are always some parts of his experience that are common, and these constitute what we may call his real self. In hypnotism also, the most fundamental experiences still guide, and the somnambulist is not altogether unmoral or immoral. In smaller degree the same remark applies to the dissociated or alternating personalities.

Even the subconscious or unconscious selves, as they have been traced in much completeness by Professor Jastrow, are not distinct from this dominating unity. They are but new group-

ings of the same elements that for a brief time may hold independent sway ; and during that time new, or at least long forgotten, experiences may cooperate in the control of thought and action ; but also, and more noticeably, the elements or systems usually dominant are not for the moment in control. In ordinary thought or action, the elements that constitute subconscious thought or action merge their influence with the general mass and count in the total according to their general strength. They are not distinct minds ; they are but disjointed, transitory organizations of some elements of the common experience, ordinarily constitutive of a single system. Nothing that is conscious escapes forming part of their unity ; the larger the unity, the greater the number of elements that compose it, the fuller the consciousness, the more adequate the knowledge. A sensation or thought detached would no more have consciousness than a particle of matter without other elements in the universe would have weight. It can only be known by being related, and the wider the relations the greater the consciousness. In a system of this kind, not only do we have both a dynamic unity and a persistent, effective self-identity, but the unity is conscious of itself as one, so long as the unity is unbroken, and the elements are conscious of themselves as distinct when the unity is dissolved. It is not a mere logical construction, but it is a self-evident interpretation of observed fact.

We still have left over the traditional question as to how the mental states are known. For this we must go back to the general problem of outer perception or judgment already discussed. When we perceive an object of any kind or give it meaning, we refer it to older established types under the influence of some general problem. When, for example, we see a color, we refer it to some earlier standard, and we see it and make the reference because we have the particular question asked, What is that color ? or because our mood or the task involves recognition of the color. In brief, we perceive an object as an object when we attach a meaning to it, and that consists in identifying it with a previously developed standard, an earlier crystallization from experience.

In the same way, when we attempt to know our mental states as mental states, we look at them under the influence of a question, a different question to be sure, and refer them to other, earlier developed types or crystallizations of experiences. When we say that there is a bare sensation of pressure, we are interpreting this particular concrete experience with other similar impressions, are taking it up into the system of knowledge growing from numerous experiences of separate series of pressure and of the nature of their excitation by mechanical stimulation. We apply an interpretation or standard that has been found to harmonize large groups of similar experiences. A bare sensation or image is from this point of view not a datum; it is merely another meaning that may attach to any experience. Whether the meaning is one of common sense, of an objective science, or of subjective science, depends upon the purpose you have in mind at the moment and the resulting type to which the experience is referred. What was, for the earlier question, the edge of a pile of manuscript nearly finished, becomes now, as I raise the question of comparison with perception, what we call a bare sensation of pressure. Obviously each is an interpretation; one is as abstract as the other. The bare image is no bare image, but a psychological interpretation of what was at the last moment interpreted under the influence of a question of everyday common sense. So to know mental states as mental states is not a different kind of knowledge from knowing things,—it is merely knowing the same thing in a slightly different way. It is a matter of taking up the given, whatever it may be, into a different system of experiences than before, of attaching a different meaning, or different type. So far as immediacy and abstractness is concerned, both are on the same level; and even the process of knowing is not different. It is, in both cases, not a transfer from one level to another, or a process of bringing in elements of different grades, but merely one of making a reference to other elements previously organized into a type. For neither do we need a knower; knowing is but a process of combining old mental states with new. If there be a knower, it is experience as a whole.

To know the self as self, so far as that is possible, is a process of the same kind. It is but to analyze out from one mental state those phases that make that state like all other states, to select the aspect that is common to all experience. The process frequently repeated gives rise to the idea or type of the empirical self to which each concrete mental process adds something. Even when we pass to the problem of the self as a dynamic active force, we are working along the same general lines. True, the experiences have not crystallized so definitely or completely that the type is added immediately, and is not distinguished from the given in the resulting object, or that it seems to be a datum of consciousness, as does the perception of the table. Still the construction comes by looking at the concrete with a definite question in mind and gaining from numerous processes a common characteristic which, when combined with other interpretations of different phenomena, harmonizes with them and can be made typical of all.

So, for example, I have been endeavoring in this paper to group the facts that are involved in knowing the self with a large mass of related facts. If I have succeeded in uniting the picture of the self with other bits of knowledge already developed into a system, we have a knowledge of the self in what seems to me the only possible way of knowing anything. To take some one concrete act, if any act is concrete, and to bring it into connection with a wide mass of similar phenomena that interpret it, on the one side, and, on the other, take it over into themselves to enrich them, is to know. Similarly the self, as developed socially, is an interpretation, and, as we know it in any of its physical or ideational aspects, we are selecting phases and grouping them with related phenomena. The data that are interpreted we find first, probably, in the constant mass of sensations, strains, bodily feelings, persisting visual impressions, etc., that James and others have been so happy in rooting out from the complex. About these group the socially recognized differences from other individuals, and out of the mass there precipitates an awareness of the self as a meaning. In the interpretation the self does not stand out with all the distinctness of the desk I see before me. It is

more confused with the impression of the body, more vague, more shadowy, but originates in the same way. The difference in substantiality is probably due to the fact that it will not stand the pragmatic test, will not serve as the end of action, or will not give support in any physical way when trusted to. Even if the perception were more shadowy, however, if it were a mere logical interpretation of what is known, we would have the same principle as in knowing things or sensations. We do not need the self to know mental states, much rather mental states know the self.

One might ask, however, whether self-consciousness has the importance in reality that has been given it in the history of philosophy and psychology. It has been assumed that to be self-conscious is in some way a new step in mental development, an ideal that should be striven for as an attainment of high value and importance. Practically, this seems to me contrary to the facts of ordinary experience. In most matters we are certainly at our best, when we know little about ourselves as selves, but are lost in the consideration of the external problem that presents itself. To be self-conscious, in the popular sense, is a weakness. One is most effective when no thought of self is present. Very much the same may be said of the matter from the scientific point of view. When the purpose is concerned only with external reality, we are at our best; any vacillation of purpose to self-observation or reference weakens rather than improves our effectiveness. To be self-conscious may be a pleasant theoretical attainment, and it may be one sign of a stage of development, but it seems to me not the mark of physical efficiency or of mental capacity that it has been considered to be by the older writers. The French go so far as to make too much consideration of self one of the conditions of insanity. It has its advantages, no doubt, in determining the line between sanity and insanity; it may mark the ethical and legal line where punishment may be administered. But this, again, is always determined in the last analysis by the degree of control that is exerted over actions, not with reference to the awareness of the self in the sense we have been using the term. Self-consciousness, then, as an individual as opposed to a

social fact, is not a mystery or even a privilege ; it is a luxury, a satisfaction of idle curiosity, and that by quite simple means.

To perceive an object, to introspect an image or bare sensation, and to know a self, are all alike in that each is a new rearrangement of an entire experience about a common focal point,—a rearrangement due to different questions in mind and leading to different systems, to different types. We have come around to Münsterberg's statement that all knowledge is interpretation, with the difference that I believe that knowledge arises essentially through interpretation. Far from falsifying experience, interpretation is the very life of experience. No experience would be possible without it, and the greater the amount of interpretation, the greater the number of elements that interact in any mental process, the fuller the consciousness, the more adequate the knowledge, the nearer the approach to the goal of truth. Human thought progresses toward truth, toward certainty, not away from it.

In any theory of the self, we should at once meet the question : Have you any place for the body ? Our answer is that it is possible to parallel the interaction we have been discussing at every point on the physical or physiological side. We may picture each element of experience as correlated with dispositions or tendencies to connection in nerve cells. We may also picture the directive influence of experience on the concrete thinking of the moment as a result of an interaction between the particular nerve elements and other nerve cells through association centers. The wealth of experiences that respond to a simple stimulus is paralleled by the widespread effects in the nervous system of the same stimulus. The control that experiences long gone exert in determining the direction of the response to stimulus, we may consider due to the effect exerted in the cerebrum by numerous nerve cells in a state of actual but tonic excitement. What cell shall act in response to stimuli from the external world or in response to the nervous impulse that spreads from other neurons, depends in part upon the strength of the stimulus and in part upon the way in which the other more remote cells, bearers of dispositions rooted by earlier acquirement, are at work in deter-

mining the readiness for action of the particular cells that may be concerned. What, on the mental side, is an organization of experience, is, on the physical side, an organization of the nervous system. That this organization is real, not theoretical, again, can be demonstrated by the circumstances under which it goes to pieces. When toxins of typhoid and of other diseases act upon the connections between the nerve elements, or when general nervous energy is low, we find that the effects of earlier associations are destroyed, dissolved by the poisons, and with that there is weakening of memory and later lack of control of thought and action by remote cells and earlier experience. The result may be the delirium, with incapacity for control of thought and action, that we find more or less transiently after acute diseases, more permanently in hysteria, and probably exaggerated in many of the more marked forms of insanity. So we must imagine that, in Dr. Prince's case, the physical bonds of association between the wider organizations of experience were broken in some unknown way by emotional stress, and as a result B_I, B_{IV}, and Sally, in part, became at once incapable of recalling the events that occurred to the common body when the others were in control, and, owing, we may believe, to the broken bonds, each showed the marks of a different self in taste and emotion, in reason, and in will. In many cases of dissolution of physical connections between cell and cell, we find corresponding loss of memory and of the influences that constitute self-control in general, and attention, will, and reason in particular. With change in any of the nervous processes, the self is also profoundly affected. Whether we picture the relation between mind and body after the fashion of the parallelist or the interactionist, there is a physical as well as a mental side of the problem, and, according to our opinion, they are closely and essentially related. Every phase of self-activity could be paralleled by brain activity.

One question of extra-psychological import we seem called upon to touch in this connection: Must we assume that mind and body are so closely related as to render separation after death impossible? On this problem psychology as psychology has

nothing to say. Within our experience the two are always together, and, applying Kant's principle, our results here have no bearing, positively or negatively, upon anything beyond experience. It may, however, be worth while to suggest that there is no reason why the ethical and religious arguments that apply to a self of the traditional form should not hold equally for a self such as we have been depicting. There is only one argument that would hold for the atom self that would not be equally strong for ours, namely, that the absolute unit must be indivisible and so indestructible. But a self of this kind would not be worth saving, as has often been pointed out from the time of Averroës to the present, for it would have no individual memories, no actualities in its experience; it would be fit for nothing but Nirvana, or to be lost in the Absolute of the Neo-Platonists.

To understand the self in this sense, we need nothing above or beyond the self. The self is merely all that we are and know, organized, self-unified, and self-identical, a growing vital unity that as a whole is effective in every experience. When it is directed toward the control of action, we know it as will; when choosing from the many stimuli that offer, as attention; when interpreting the stimulus, as perception or judgment; when constructing new forms from old experiences, as reason. But it is the same everywhere, always active, and active in very much the same way in every kind of mental process. With a self of this kind we do not need to abandon logic for emotion, nor need we, after some conclusion has been painfully attained, abandon the results of our analysis and go back to our crude common sense prejudices. The self is at once an empirical fact and a logical interpretation of an empirical fact. As knowledge grows, the interpretation grows. If fundamentally wrong, we can give up the interpretation without a pang to accept a newer and more complete one born of a wider experience; if right, in part, we can proceed along the same line to develop our knowledge of it. Everything that we learn of mind must deepen and amplify our conception of the self. No real experience can remain in contradiction to that conception, for it must be modified to fit the new fact. If you care to throw the discussion into old terms, it is

unity with multiplicity, identity amid difference, and at the same time a principle of explanation. We need hope only that it does not go farther in the Hegelian direction and constitute a bundle of unresolved paradoxes. It is a principle of explanation, but is immanent, not transcendent, effective not shadowy. It is a principle of unity that arises from experience and gives unity to experience, an identity that persists in experience and progresses with experience, a knower of mental states that develops from mental states, and is at the same time something empirically known, nothing mystical or mysterious in its nature or actions.

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THE RIGHT TO BELIEVE AT ONE'S OWN RISK.

I HAVE no intention in the present paper of going into the question of the ground or groundlessness of that much discussed doctrine pragmatism, nor have I the desire to enter the lists against anyone. But the expression used some years ago by Professor James in his well-known essay, namely, that "we have the right to believe at our own risk" hypotheses which tempt us, and the recent reiteration of the expression by Professor Dewey, have set me thinking a good deal about the freedom to act which seems to be offered us in the phrase; and what follows is a meditation upon this general topic.

Unquestionably the phrase is a taking one, and has been felt by many as an instrument of release from a certain bondage. It has seemed a justification, not merely of what men would like to do, but also of what the great majority of men actually do, and feel that they ought to do. Were it not for this, it would certainly not have taken the fancy of the public as it has. We all seek a justification of our course of life, and are glad when it appears that we have found one. The expression under discussion is not an idle phrase; it is full of significance, but the measure of its significance can scarcely be taken, until it has been subjected to critical reflection.

We are concerned with a right; and it seems desirable to determine, first of all, of what kind of a right we are speaking. Clearly we have not to do with a logical right. No man takes the trouble to establish the general proposition that we have a logical right to believe what can be proved to be true. We are supposed to be dealing with matters concerning which the logical right to believe cannot be established.

Nor have we to do with a legal right. The law allows us to believe what we please, so long as our words and actions are subjected to certain restraints. The words "at our own risk" cannot mean at the risk of detection and punishment at the hands of the law. Every crime that is committed is committed at the

risk of the criminal, but that does not establish his right to commit crime.

The right with which we are concerned is a moral right, and the real question which occupies us is : May a man regard himself as morally justified in accepting as true, and living by, views of the universe, or systems of doctrine and practice, which his critical intelligence cannot regard as scientifically established? And if we answer this question in the affirmative, it seems a plain duty to determine the limits of this right. It would seem silly to maintain that a man has a moral right to believe anything that he pleases, and to direct his life in harmony with such a belief.

I shall not haggle over the use of the word 'belief.' He who opens his eyes and looks about him must admit that men can and do place themselves in a receptive attitude toward systems of doctrine and practice without being impelled to do so by purely logical considerations. There are religious sects, there are political parties, there are social codes and prejudices, there are 'schools' in art, and even in philosophy. He who does not belong to any given division or class is constantly impressed by the effect of passion or prejudice in coloring the vision of those who belong to that class. Some who are thus classified appear to have no doubts. To some, the critical attitude appears to come now and then. A certain number seem to recognize rather clearly that they are where they are because they choose to be there, and to realize that their acquiescence is something more than a mere recognition of truth. If we use the word 'belief' rather broadly, I suppose we may say that all of these persons believe what they profess, openly or tacitly, to believe. Unless the critical consciousness is always awake and clearly awake, their attitude is one of receptivity. They feel and act *as if something were true*. The influence upon their lives may be enormous.

Now, I think that we would all feel that it is offering us, not liberty, but license, to tell us that we are morally justified in placing ourselves in any class we please for no better reason than that we please to do so. As a matter of fact, men who reflect upon such matters at all usually try to justify their position in

one way or in another. Usually they try to show that their subjective attitude is determined by objective truth. Sometimes they argue that their being where we find them is for the moral or spiritual good of themselves or of others. Occasionally social inertia, *i. e.*, family traditions, etc., may be brought forward as a sufficient excuse. Some excuse men commonly feel impelled to give. It impresses us as too loosely generous to maintain that we have the right to believe any hypothesis that tempts us; some limiting clause is demanded.

The statements brought forward for discussion in the opening paragraph of this paper stand in each case in a context which suggests that the right to believe, in the absence of convincing objective proofs, is founded upon and limited by considerations of utility alone. But, in each case, the statement seems to be softened and made a more cautious one, by the proviso that such belief is to be "at our own risk." The significance of this expression is worthy of investigation.

I believe that the limitation implied in this phrase has done a good deal to popularize the doctrine of the right to believe. It seems to make it a private and personal matter with which others have no concern. We all know that there are certain things that I may do at my own risk, that I may not do at the risk of my neighbor. Many of my acts concern him so little that neither the civil nor the moral law appears to require that I must consider him in their performance or non-performance. It cannot interest my neighbor to know which shoe I put on first in the morning, or whether I read the newspaper for ten minutes or for fifteen. It may even interest him little to know that I have over-eaten at dinner, and have suffered in consequence. The civil law certainly regards such an indiscretion as my own affair; nor does my conscience, under ordinary circumstances, accuse me of having wronged my neighbor in being guilty of it.

But even the law sets limits to my right to do things at my own risk. I am not allowed to take away my own life in peace, if the law can prevent it. In certain well-ordered communities the man who has been run over by a cab is fined, if it can be shown that he risked his life carelessly. As to the moral law,

my right to take risks is surely limited. I have no moral right to ruin myself mentally, morally, or physically, through a reckless disregard of what is prudent. So much I can say, even leaving my neighbor out of account. My moral right to do things at my own risk is a limited right; it extends only to certain actions.

Now, the statement that we have the right to believe at our own risk moved me favorably from the first, much as it has moved others. It seemed to be a formulation of the spirit of religious toleration, which is assuredly a good thing. And yet, also from the first, I had some doubts of the propriety of the limiting words "at our own risk," and these doubts have not been dispelled by time.

When we discuss the right to believe, with all that that implies, we are not concerned with trivial and unimportant matters. We have to do with matters of profound significance, both to our neighbors and to ourselves. No man can maintain that it makes no difference to the community in which I live whether I elect to be a Moslem, a Christian, a pillar of the Society for Ethical Culture, the founder of a peculiar sect of my own, or an avowed agnostic and an opponent of religious practices of every sort. As well say that it makes no difference to the community in which I live whether I have measles, smallpox, a sprained ankle, a taste for music, or a cold in the head.

And it seems to me equally clear that belief or unbelief in such matters as I am discussing must have so great an influence in determining the course of the life of the individual directly concerned, that we cannot consider it his moral right to act arbitrarily. If he cannot find a logical justification for belief, in the sense of the word used in this paper, surely he will, if he is a conscientious man, try to find some other justification. He will try to do what is *right*, here as elsewhere. The mere fact that some system of doctrine and practice tempts him, he will not regard as in itself a justification. Men are tempted in many ways, and some temptations are to be rejected.

I am inclined to think, therefore, that it is better to discard the words "at our own risk," and, recognizing the moral responsi-

bility to ourselves and to the community under which we all stand, to discuss the right to believe with a full consciousness of such responsibility. Whether we accept this view of the universe or that, this system of practice or that, is not merely our own affair. It is also the concern of our neighbor. And as far as it is our own affair, it is too serious a matter to be classed with the things that we may do or leave undone at our own risk.

When we have discarded the limiting phrase, I think a great deal can be said for the doctrine of the right to believe, provided it be somewhat cautiously defined. What appears to be at the bottom of the doctrine is that human life goes on on a basis of assumptions and conventions, and that we are always living beyond the limits of strict scientific evidence.

It is well to remember that this is true not merely in matters of religion. The law is as conservative as the church, and is full of conventions which the critical reason recognizes to be such. We keep up old forms from a consciousness of the danger of hasty changes in matters which so vitally affect the stability and the well-being of the body politic. We speak of 'interpreting' laws when our legal decisions are really making laws at every step. And in our everyday intercourse with our fellow men, and even with the members of our own family, we exercise a trust which is far beyond the limits recognized by the coldly critical intelligence which concerns itself only with objective evidence. Sometimes we come to grief as a consequence of such a trust. But human life would hardly be possible were men not thus uncritical in their daily living, and our gain exceeds our loss.

If, then, we come back to what is really in the mind of all of us when we take to discussing the right to believe, — if we come back to the religious beliefs, or to philosophical doctrines which, in the case of some men, take their place, — we find that we are not dealing with an isolated phenomenon. It is not too much to assert that men place themselves where they do, not merely under the compulsion of logical evidence, but for quite different reasons, among the most important of which are considerations of utility. These considerations may be rather selfish and trivial, or they may be quite the reverse of this. They may necessitate much self-denial and self-repression.

I have indicated above that philosophical doctrines may be the object of the will to believe. It is matter of common observation that there are such things as philosophical schools, and that those who have become inoculated in youth with a given type of doctrine show a certain readiness to accept, a certain eagerness to believe, many things that do not strike other men as either very significant or very well proven. There are philosophical movements at the present day which illustrate this admirably; but, as I do not wish to be drawn into profitless dispute, I shall not mention them.

But the will to believe in things philosophical may be illustrated, not merely by a reference to those who have come under the influence of a given teacher, or to those who have taken up with a popular catch-word, but by a reference to men of a different class. I have lately been looking through the arguments for the Absolute, or, rather, for the several kinds of absolutes, urged upon our attention by a number of well-known philosophical writers. I confess that I cannot but marvel that men of such acuteness and learning should so solemnly offer us so sheer a non-entity; and urge upon our attention proofs which, critically examined, are so little worthy of the name that, had they had the misfortune to get themselves recognized as traditional and orthodox, they would surely have been rejected with disdain by these same writers. Why do these men care a straw for such an Absolute? And why are they willing to abandon all the canons of the ordinary logic when they argue in its defense? I know no reason save that they are men like other men; that this Absolute somehow takes for them the place of a God; and that they do in their own way what is daily done by those who become devout Moslems or Christians.

The will to believe we find in almost every department of human activity; and the right to believe I should myself be inclined to concede. In this I am guided partly by an observation of the instinct of the plain man. The right to believe seems to be almost universally demanded, and to have a close connection with the development of human life. But the important question is: How should this right be limited?

I think the question can best be answered by having recourse to the ground upon which the right itself is established. If the development of the life of man seems to demand that he be allowed the right to go beyond objective evidence in accepting ideals and systems of practice, the limits of this right ought to be determined by a consideration of what is wholesome and helpful to the life of man.

This would rule out mere arbitrary choices, and choices dictated by petty considerations such as vanity, the desire to be regarded as original, the desire to shock sober people, to have one's fling, to pose as pious, etc. The question is a serious one: What is it desirable that men should accept and live by? How is human life best furthered?

Clifford once suggested, in youthful enthusiasm, that we ought to try new experiments in living, thus advocating an extreme independence and individualism. I wonder how it would strike the most independent of men if it were suggested that we all try experiments in manners, disregarding the usual methods of salutation, trivial conversation, and daily behavior, including our habits of taking food at the table? Conventions of some sort we all regard as necessary to civilized life. We must meet, if we are to meet without discomfort, on some common ground.

And men generally find themselves born into some sort of a religious system of doctrine and practice. It serves and it has served as a scaffolding by the aid of which man builds up his moral and spiritual life. To be sure, he may conclude, when he comes to years of discretion, that the particular system in which he has been born is a pernicious one, and has no good reason for existing. His duty, then, seems plain, though a painful one. But if the system serves his purpose, and if he can profitably use it, it seems a more natural thing to accept it than to accept some other for which little more can be said.

Man is guided by tradition and influenced by custom even in choosing his hat. Did he exercise a taste uninfluenced by these restraining influences, we should see on the streets a strange assortment of coverings for the head. And did men take up lightly with new systems of doctrine and practice, were the effect

of birth and tradition really of no effect, no religious organization would hold together for any length of time; not even a society for ethical culture, for men must hold to something with some degree of tenacity, and must be willing to overlook some of the differences of opinion which divide them, if they are to form any sort of a union.

If, then, we ask, What views is it desirable for a man to accept and to use in the regulation of his life? I think we may answer that that to which he has been born has at least a strong claim upon his consideration. Unless a man has good reason to move on, he would better stay where nature and the historical development of things have placed him. This does not mean that he is to reject all progress. When he sees clearly a new duty, he must obey its call. But mere restlessness, the impulsive tendency to throw off restraint,—such things as these may not be recognized as such a call. It is a good thing for man to realize that he has his place in the organism of society, and that progress in a society best takes place as the result of rather a slow evolution. There are instances in which progress seems to have been furthered by the presence of the revolutionary spirit in certain individuals at certain times, but revolution cannot be recommended as a prudent rule of life, and urged upon men generally as a duty.

The first of the provisional rules of morality which Descartes framed for himself, when he threw all his opinions into the crucible of his universal doubt, was to obey the laws and customs of his country, to remain in the religion in which he had been brought up, and, in general, to conform to the opinions of the more moderate party of those among whom he had to live. I think Descartes's action is very much to the point in our discussion. He stood just where we may assume those to stand who are discussing the will and the right to believe. Objective evidence was as yet lacking, and the question was: What, under such circumstances, was it wise to do?

I think I hear it objected that this is mere philistinism; and that men who follow tradition blindly and act with a smug prudence are in danger of killing off all freedom of thought and

action. There can be no doubt that Descartes's first rule, taken by itself, may be made the excuse for the worst sort of philistinism. But it is worthy of remark that it did not deaden independence of thought in the man who formulated it; and that it does not deaden independence of thought in many men at the present day, who feel it their duty to accord a general acceptance to religious or political organizations with all the details of whose creed they cannot feel themselves completely in accord.

There are men, plenty of them, who cannot make any distinction between what is voluntarily accepted as a rule of life, *i. e.*, an article of faith, and what is established as objective and scientific truth. But there are also men who can grasp the distinction, and who, while conscious of the difference, can use the article of faith to their advantage. If it furnishes them with what they can regard as a core of reasonable hope, they can overlook many things of lesser moment. I think this is what is actually done by many men who will to believe,—indeed, by the mass of men who will to believe at all consciously.

Such men stand between two contrasted dangers. On the one hand, they may keep alive the critical spirit at all times and seasons, in which case they cannot properly be said to will to believe at all, and they certainly lose any good that may be expected to come from the operation. There is no system of doctrine and practice which will not seem hollow and meaningless to a man who keeps saying to himself at every moment: "All this is moonshine; it is not really true at all; I am merely keeping up a pretense." This is not 'willing to believe'; it is 'willing to pretend.' Any emotional gain to the individual is out of the question; and an organization made up of such conscious pretenders has no real reason for being. If one is to gain by the operation we have been discussing, one must, at certain times and under certain circumstances, at least, give oneself up to the receptive attitude, and be uncritical even towards those elements in a system which, under other circumstances, one would be inclined to criticise.

The other danger to which I have referred is this: One may so far smother the critical spirit as to lose entirely the distinction

between objectively established truth and what has been voluntarily accepted as an article of belief. He who does this becomes a bigot, and a clog on the wheels of progress. It is natural to men of a certain type to be bigots,—theological bigots, philosophical bigots, political bigots, social bigots, bigots of every description. A philosophical justification may even be brought forward for such bigotry, and this has been done in the assertion, more than once urged upon our attention in recent years, that we are not bound to accept as truth what does not satisfy man's whole nature. If this only meant that, when in doubt, one may accept as an article of faith what seems helpful and is not palpably and fundamentally untrue, we cannot object to it. But those who have urged it have not, I think, had in mind such a limitation of their claim. They have obscured the distinction between what is subjectively accepted and what is objectively proven. They have treated truth as a thing to be *made*, not *found*. I think this is bad from every point of view.

It seems, then, that it is wise for a man to follow a middle course, and to accommodate himself to the world in which he finds himself, while allowing for growth and progress. He may make concessions to life, and yet remember that truth is truth and that blind bigotry is not a thing to be recommended, nor one that can be counted upon, in the long run, to bring him into harmony with his actual surroundings. The actual world is too big a thing to be ignored. It is what it is, and if we keep our eyes tightly closed we may clash with it.

But how far is it possible for a man to will to believe? Suppose that my critical intelligence cannot find in the world even a faint analogy that suggests the presence in it of something Divine. May I, then, join myself with any of the traditional religious organizations in the cultivation of the religious life? I have met men to whom it has seemed possible to do this. To me, I confess, the whole thing would seem so hollow that I could not find it possible. But I shall not permit myself to lay down limits to restrict the freedom of others.

One thing, however, I feel that I must do before closing. I must insist that the philosopher is not a creature apart, and a

being released from the obligations which rest upon men generally. That he should be more often engaged in critical analysis, more clearly conscious than other men of the distinction of subjective and objective, is a thing to be expected,—at any rate, it is a thing to be hoped for. But no one is merely a philosopher ; he is also a man, with the usual endowment that makes man something more than a rational animal. He has read the history of philosophy to little profit who has not seen in the succession of systems unrolled before him plain traces of the education and training, the passions and prejudices, the hopes and fears, of their very human authors. The will to believe is unmistakably present. It seems reasonable to insist that the philosopher, since he is a man and a member in the social organism, should take this fact into consideration in ruling his own life,—should strive to avoid, on the one hand, the detachment from all that is human that rejects every ideal not completely supported by objective evidence, and to avoid, on the other, the blindness that assumes the objective truth of whatever may be the goal of his desire. To be sure, this sets the philosopher rather a difficult task ; it asks him to embrace ideals, to care for them, to live by them, and yet be willing to abandon them in whole or in part, if there appears good reason for doing so. But this is, after all, only asking him to live by what light he has, while standing ready to welcome more light.

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DISCUSSION.

PURE EXPERIENCE AND REALITY: A DISCLAIMER.

IT is hard to judge how far it is advisable to enter into controversial discussion in reply to criticism. Observation of its usual course tends to the conclusion that the time devoted to it might ordinarily better be spent upon independent analysis or construction. And if one's original writings, put forth without controversial entanglements, are so awkwardly phrased as to provoke serious misunderstanding, why give the philosophic brethren additional cause for offense? But "Silence gives assent," and may propagate misunderstanding in minds hitherto innocent. Moreover, Professor McGilvary's misconception of my position, as he sets it forth in the May number of this REVIEW, under the caption of "Pure Experience and Reality" (Vol. XVI, pp. 266-284), is so extreme that, to some extent, it may be categorically dealt with.

1. He refers to me as among those who hold that the "reality of anything is the reality it has as experienced and *only when experienced*" (p. 266, italics mine); and again "No *contemporaneous* experience, *no reality*" (p. 274). I do not hold, never have held, and, to the best of my knowledge and belief, have never intimated nor implied any such views. That experience means experienced things; that all philosophic conclusions are to be drawn from the things as experienced (not from the concept of experience, which I have held to be purely empty excepting as indicating a *method* of procedure and recourse); that things are what they are experienced *as*, or experienced *to be*, I have asserted. The "only when" in the quotation has no standing in anything I have written. And books, chairs, geological ages, etc., are experienced, so far as I am aware, *as* existent at other times than the moments *when* they are experienced. Does not Professor McGilvary *experience* them *as* that sort of thing, *to be* that sort of thing?

2. The question raised in the paper upon which Professor McGilvary bases his criticism is (granting the existence of things prior to experiencing organisms), "What is the better index, for philosophy, of reality: its earlier or its later form?" (These words are in the original text and are quoted by Professor McGilvary himself.) That is to say, shall philosophy build its interpretation of reality upon reality as existent prior to its experience, or upon the reality of *that*

as now experienced? The answer given is in the latter sense that the earlier (say Eozoic geological age) is experienced as the condition of a present experience which expresses reality more adequately (for philosophy, not for science) than the conception of it as merely pre-existent. This may be a false conception, but it is a totally different idea from that to which Professor McGilvary devotes much poetry, eloquence, and humor. How could it be a *condition* of the present experience unless it existed prior in time? But Professor McGilvary is so well aware that the prior existence of one thing to another thing in time leaves entirely untouched the question of the nature of the reality of time, and hence of the reality, for philosophy, of the temporal sequence, that I do not understand the satisfaction he gets from writing as if I were totally ignorant of this rudimentary distinction. Moreover, if the doctrine be false, it is still one that Professor McGilvary himself holds. He writes: "No experience somewhere and somewhen, no meaningful reality anywhere and anytime. *This is the truth which is contained in Professor Dewey's contention*" (p. 274, italics mine). I should say it was; the only truth for which I contended. My enjoyment, accordingly, of the ludicrous position in which Professor McGilvary places the "pure empiricist," with me as *corpus vile*, is heightened by the fact, that in view of his expressed agreement, I can stand the joke — if he can.

3. Professor McGilvary quotes from me: "The present experience of the veriest unenlightened ditch-digger does philosophic justice to the earlier reality [whose existence he charges me with denying!] in a way which the scientific statement does not and cannot; *cannot*, that is, *as formulated knowledge*" (p. 273, italics mine). Unfortunately for his logic (though doubtless fortunately for his humor and poetic metaphor), he fails to quote, or take into account, the next sentence, which runs as follows: "As itself vital or direct experience . . . the latter is more valuable and is truer in the sense of worth more for other interpretations." The point at issue is not in the least whether the experience *creates* the things known, but whether the scientific formula as such or the direct, vital experience as such is, for the philosopher, a better index of the nature of reality, it being expressly declared that a direct experience which *includes* the scientific formulation is better than one which does not. When Professor McGilvary himself comes out strongly for the *representative* character of knowledge, he seems to be again in favor of my contention that a direct experience is a better index for philosophy than the knowledge phase as such of an experience. But perhaps only the erring empiricist holds that direct

is better than merely representative experience. If so, I am still content to err; and shall abide by my conviction that an experience in which a symbol is experienced in its fulfillment or embodiment, is better than one in which the symbol alone is experienced, just as it is also better than one which remains as yet unrepresentative. And there are certain echoes from one Hegel, who held that the mediation finds its fruition in a new immediacy which I hope still also reaches the ears of Professor McGilvary.

4. Professor McGilvary refers to *Studies in Logical Theory* as follows: "In that work he [*i. e.*, the present writer] insisted that the *object of thought*, when it has emerged from the experience of stress and strain and appears in a subsequent tranquil experience as the result of pragmatic adjustment, must not be read back anachronistically into the time preceding the adjustment. The reader was therefore left to infer that no *truth* made out by intellectual labor is *to be held valid* of anything real that may have existed before that labor was ended" (p. 267, italics mine).

The reader was not only left to 'infer' this, but the reader who did infer it was 'left.' The point of the contention to which Professor McGilvary refers is the anachronism of referring back the "object of thought" (as characteristically a *thought* object) to reality prior to the thinking. The old-fashioned empiricist held that thinking has no forms or modes of its own at all, being merely a complex of sensations or a disintegration of a prior complex; the epistemological idealist held that such forms or categories not only exist but are characteristic of reality as such, which therefore is to be conceived, philosophically, as a system of thought relations; that thought as such is constitutive of reality as such. Now one object of the *Studies* was to insist, as against the sensationalist, that thinking does determine a characteristic objective situation, and, *against the idealist*, that it determines an object in process, through doubt and inquiry, of *redetermination*. Its purport, in short, is that all thinking is reflective, and that it is constitutive not of reality *per se* or at large, but only of such reality as has been reorganized through specific thinking, the reorganization finally taking place through *an action* in which the thinking terminates and by which it is tested. Thought is thus conceived of as a control-phenomenon biological in origin, humane, practical, or moral in import, involving in its issue real transformation of real reality. Hence the text abounds in assertions of reality existing prior to thinking, prior to coming to know, which, through the organic issue of thinking in experimental action, is reconstructed.

That it should be possible for a thinker of Professor McGilvary's equipment — to say nothing of his command of wit and of the poetry of picturesque and catastrophic metaphor — completely to invert the sense of my writing, even after its obscure and awkward character is taken into account, would be finally discouraging, were it not that I am buoyed up by three considerations. In the first place, he holds that knowledge is by subjective images which acquire a 'transsubjective reference' to the realities to which they subjectively mean to refer, — the connection of the intention with the image, unfortunately, not being elucidated. Hence it would not be surprising if an image of my logical beliefs should spring up in Professor McGilvary's subjective resort for such creatures which should be totally unlike its object. If such an 'image' were of great æsthetic brilliancy and of an unusually vivacious quality, it might easily impose upon him. Or the image might get switched off during its 'transsubjective' travels and finally light upon my devoted head, though originally intended, say, for some sensationalistic idealist. It would be obviously unjust to hold Professor McGilvary responsible for such a *faux pas* on the part of his image after it left him.

Again, thinkers who have got habituated to a mode of psychological analysis, which, in the interests of psychology, resolves experience into certain transient acts and states of a person, into sensations and images of a psycho-physical organism, may forget that others employ the term experience in a more vital, concrete, and pregnant sense. Hence, when others talk about experience, it is assumed that this means the psychological abstract which it means to the critic. Finally, modern philosophy has been built up on the foundations of epistemology; that is, it has held that reality is to be reached by the philosopher on the basis of an analysis of the procedure of knowledge. Hence, when a writer endeavors to take naïvely a frankly naturalistic, biological, and moral attitude, and to account for knowledge on the basis of the place it occupies in such a reality, he is treated as if his philosophy were only, after all, just another kind of epistemology.

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PURE EXPERIENCE AND REALITY: A REASSERTION.

A page and a day are given me for replying to the above disclaimer; hence on this occasion I cannot well take up all the points that need further discussion.

Professor Dewey attributes my failure to understand him to the fact

that my image of his logical views got switched off during its trans-subjective travels. But of course this is absurd. In fact no mistake has occurred, and none could occur. "Immediate empiricism postulates that things—anything, everything, in the ordinary or non-technical use of the term 'thing'—are what they are experienced as. Hence, if one wishes to describe anything *truly*, his task is to tell what it is experienced as being." (*Journal of Philosophy, Psychology, and Scientific Methods*, Vol. II, p. 393; italics mine.) Now in my article, I told exactly what Professor Dewey's logical philosophy was by me experienced as being; hence that article has described his philosophy truly.

Professor Dewey disclaims having ever intimated or implied that he ever held any such view as that the reality of anything is the reality it has only when experienced. No doubt he does not experience having made any such intimations or implications. But on my part, after tensions over what seemed the absolute contradiction involved in the statement that "things are what they are experienced *as*, or experienced *to be*," I finally got the satisfying and redintegrating experience that Professor Dewey supposed the reality of anything is the reality it has only when experienced. I thereupon took the pragmatic outcome of my previous perplexity over the doctrine as containing the meaning of the doctrine. If I have made a mistake in this, it is simply the mistake of a disciple who follows too literally the master's instructions.

Now let me describe the logical process which issued in my mistake. Zöllner's lines "*are divergent*" when experienced as divergent; they are parallel when experienced as parallel (*Loc. cit.*, p. 397). This was the cue. The second epochal stage was reached when I began to think of what would happen if the reality of the divergence and the reality of the parallelism could somehow extricate themselves from the times of the experiences to which they severally belonged. It looked very much as if there would be imminent danger that these realities might in their wanderings meet each other in some common time to the logical embarrassment of each. This unpleasantness was obviated when the third stage of the logical process was reached. In this stage I found peace in the thought that the real divergence and the real parallelism of Zöllner's lines were severally pinned down to the times of the several experiences of which they formed each a part. Of course the issue of this logical procedure makes the *experientia mensura* doctrine very much like the old *homo mensura* doctrine, but then one must describe things as he finds them in his experience.

Professor Dewey claims that, in the article which I examined, he repeatedly referred to reality prior to experience, and that he spoke of such reality as the condition of the subsequent experience. This is true: I saw the words. But when I tried to get any meaning out of them, the 'past' reality became for me a present one, for Professor Dewey's past realities have a way of *now* undergoing *past* changes every time they are differently experienced. A thing which now changes I cannot bring myself to experience as a past reality. A leopard which died in Jeremiah's day and yet now manages to change the spots it had during the Exile, seems to me not so much a creature of the past as an interesting monstrosity of the present.

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REVIEWS OF BOOKS.

Concepts of Philosophy. By ALEXANDER THOMAS ORMOND. New York, The Macmillan Co., 1906. — pp. xxxi, 722.

Professor Ormond's last book takes, in the opinion of the reviewer, a very high place among recent systematic works on philosophy. A large measure of agreement with his conclusions may emphasize this judgment; but the powers of analysis and the philosophical insight which the book reveals, any unprejudiced critic must recognize. At the same time, one may hesitate to predict a reception for it altogether commensurate with its merits. It is a big book, for one thing, and not always easy reading. And even philosophers are getting to share the reluctance to have dealings with volumes on too large a scale, unless they come under very special auspices. But, more especially, the doctrines of the book may in many quarters hinder it from getting the attention it deserves. It does not follow the newest fashions in philosophy. It pays too much heed both to common sense and to religion easily to avoid reproach, and, in particular, the fatal reproach of being theological; and it confesses to beliefs which the Enlightenment of the day has agreed are outgrown. But herein lies one large element of its value. Renan somewhere says that he fears the work of the twentieth century will consist only in picking out of the waste basket a multitude of excellent ideas which the nineteenth century has foolishly consigned to it; and it is very conceivable that the philosophers, among others, have not been guiltless of such an over-hasty rejection. It is not merely the conservative who gets into the habit of ignoring little considerations not entirely consistent with his opinions. Those who pride themselves on an up-to-date reason are equally inclined to take things too easily for granted, and to hold themselves justified in overlooking details which do not readily fall in with their new insight. One special value of Professor Ormond's keen analysis lies in the way in which he points out the incompleteness of some of the current solutions, and the relevancy of problems often regarded as superseded. At the same time, the book is true to the best spirit of contemporary thought. It rests solidly upon experience. Reason is but the voice of experience in its wholeness (p. 562); and to ask about the reality of any being, *e. g.*, God, is simply to ask in what sense it is necessary to a rational system of experience (p. 612).

Professor Ormond's main thesis is as follows: If we analyze the concepts of scientific thought, we shall find that they point beyond themselves, and demand to be supplemented by the method of metaphysics. Science involves the conception of phenomena as symbolic effects of the operation of underlying and more fundamental forces. Metaphysics is simply the effort to satisfy the full demands of reason, and to interpret this ground by the substitution of the inner for the external point of view. Such an inner point of view is to be found only in consciousness, or the self; in consciousness, that is, conceived not as the mere awareness which reduces it to no more than a spectator in the world, but as the energy or activity which becomes aware of itself and its object; as an agent, the agent of agents indeed, revealing in its activity the truth and significance of the inner nature of things (p. 718). The fundamental concept of metaphysics is, therefore, no longer natural causation. Its form will be end-seeking, or teleological. The metaphysical construction of the world arises when the conscious self begins to reflect on this form of activity, and derives from it the principles of world explanation (p. 37). "Whereas a mechanical method like that of natural science may be defined as one which generalizes its phenomena under the forms of space, time, matter, and cause, and reduces them to statements called laws, which do not directly imply either reason or purpose in the world, the method which we call metaphysical, on the contrary, taking its departure from the heart of consciousness itself, and seeking to construe things in the light of the central effort of consciousness, attains as its final result an interpretation of the world that reduces it directly to terms of reason and purpose" (p. 16). In one case consciousness is a circumstance, in the other, the very heart of the world itself (p. 33).

The analysis of method is worth dwelling on a little further. There are three rational conceptions,—those on which mathematics, physics, and metaphysics rest,—which defy all effort to reduce them to terms of identity. Mathematics organizes the world of its investigation under the concept of whole and parts (p. 58). Its principle is that of exact equivalence or quantitative identity; and it is the method which the knowledge process will normally assume whenever the world presents phenomena that can be depended on to maintain definite and stable values (pp. 44, 46). It fails to be adequate, however, to the realm of physical science and natural causation. Here we have the phenomenon of mutual influence, of parts affecting other parts, not after the method of addition and subtraction, which leaves the terms qualitatively unchanged, but rather in a way which induces

a change of quality. Now the security of mathematics arises from the definiteness and stability of its terms. In the sciences of natural causation, therefore, we must find some other guarantee for the unity and stability of the phenomena. This cannot be found in the phenomena themselves. Hence the need of substituting for the notion of a whole which is the ideal sum of parts, that of ground and phenomenon,—the postulate of a world of stable material elements underlying the world of phenomenal manifestations, and entering into the manifestations as the immanent ground of their uniformity and stable persistence (pp. 48–50). This notion of ground is the basis of the transition from science to metaphysics. For the scientist, its nature is a mystery; and yet it represents a demand which cannot be given up. Metaphysics tries to fulfill this demand by interpreting ground in terms of conscious life. But, in so doing, it passes beyond the concept of a *ground* of the world to the *idea* of a world in which a ground is conceived; while for phenomena it substitutes the notion of a *realization*, in the forms of existence, of what has already been conceived as idea. The mediator of this realization is to be found in *purpose*, which connects idea with interest and will, and so with realizing efficacy (p. 59).

Professor Ormond, it will be seen, thus sets himself in opposition to what he calls the over-refinement of physical speculation at the present time, which tends in the direction of absolving physics from all responsibility to the nature of things as realities, and reducing it to purely phenomenal terms (p. 165). For him the concepts of matter and substance as a guarantee of the stability of the world order, and the aspect of physical agency involved in the notion of phenomena as symbolic effects of underlying causes, are essential to science. The question of the methodology of science will have to await for a final settlement the future course of science itself. Historically, Professor Ormond's contention is of course justified. And the fact that the concepts of ground and agency have been so incorporated in past science ought to suggest that they meet a substantial need in the understanding of the world, and should prevent the metaphysician, at any rate, from ignoring them. But if, as Professor Ormond seems to allow, they serve only to furnish the idea of an unknown background, and do not enter into the concrete statement of scientific law in its particularity, it is at least conceivable that their presence in science is due to the fact that in the scientist there is a mixture of the naïve metaphysician as well, and that, without prejudice to any ultimate significance they may possess, they may turn out to be separable from the needs of scientific ex-

planation as such. Whatever the final outcome, however, it is probably a good thing that the tendency of philosophers recently to accept the new logic of science should be challenged,—a tendency which, it may be, is somewhat too ready.

Professor Ormond next goes on to discuss the basis of certitude. Here he comes into direct connection with the current controversies about pragmatism ; and the position which he takes seems to me on the whole a sensible and satisfactory one. Fundamentally he is in sympathy, as his conception of consciousness indicates, with the position that metaphysics finds its ground form and motive in the activity of the emotivo-logical consciousness (p. 35; cf. p. 589). But this does not mean the denial of the theoretic interest and its rights, or of an intrinsic value to knowledge. It does not make 'the will to believe' by itself an adequate ground of belief. "The mere will to believe at best gives rise to a species of make-believe" (p. 705). While the cognitive processes proper do not take the initiative, but are called forth by the exigencies of the struggle of the agent for survival, there is still a real distinction between knowledge and belief,—that which is based on certitude, and that which is conscious of being determined to some extent by considerations of practical value (p. 120). Of the former, three kinds are distinguished : factual, constructual, and rational. Of these the first two arise out of data of immediate apprehension, and may be called intuitive ; that is, they have to do with that which is immediately present in consciousness, whether in the form of perception or conception (p. 122). Mathematical certainty is of the latter sort, conceptual and constructual. Its certitude is immediate because it arises directly out of the terms themselves, as exact and invariable, and has no ulterior reference (p. 125). The certitude of physical science, on the other hand, is twofold. In the first place, it is factual ; it goes back, that is, to the immediacy of perception (p. 127). But it has been seen that science does not become completely rational till it has grounded its phenomena in some deeper reality. Here comes in the factor of rational necessity (p. 128). This is not intuitively revealed ; but it is none the less certainly true, since the presumption of rational connection and grounding is the basis of the whole mental life. Generally speaking, then, certainty would seem to be confined to the recognition of a mental content or a mental meaning, on the one hand, and to the general presumption of rational connection, on the other. This last is confessedly different in kind from the preceding, and a question might be raised about our right to put it on just the same level. One might argue that after all the application of

any system of reason to the universe is a postulate, and that it is a postulate, moreover, which cannot readily be dissevered from the background of a human nature that is essentially practical. However, the dispute would, I am inclined to think, be one rather of emphasis than of essential fact, as Professor Ormond's conception of certainty in metaphysics shows. It is allowed that for the most part the judgments of metaphysics are belief judgments,—postulates of practical reason. In the starting point of its interpretation, we have indeed a certitude,—that of self-existence. But its concrete results cannot be dissolved from connection with needs, the satisfying of man's ideal interests. Nevertheless we have here belief judgments of a special sort. For the theoretic interest also is concerned intimately in the issue. It is because some final meaning of things is required for rational satisfaction, while no other kind of agency than a mental or conscious one can satisfy this demand, that certitude attaches to the metaphysical interpretation (p. 131). "If the rationally best is also the best practically, it would seem that we are not left wholly to the tender mercies of either the rationalist or the pragmatist. The practical consideration of value supplies the strongest kind of a motive to conviction, but on the other hand the judgments are theoretically reasonable in the highest degree" (p. 136.)

It would be impossible to deal adequately with the rich content involved in the detailed analysis of the concepts of the various sciences. Among the more special matters, I may call attention to the very complete and clear analysis of the sociological categories, and to the suggestive account of the historical development of religion. On the epistemological side, the treatment of the representative aspect of knowledge is worth noting. Another chapter which is fresh and vigorous, though not in my opinion entirely satisfactory, is the one which deals with the problem of parallelism. Professor Ormond's main point is, if I do not misinterpret him, that the difficulty about the production of a mental fact by a physical movement is a self-made one, due to neglecting the fact that we have to do not with two realities, but in part with mere symbols. Brain event and mind event represent, indeed, for the scientific problem, when we isolate this from the metaphysical, two sets of symbols which have a common origin. "The two sets of symbols ought therefore naturally to correspond, inasmuch as the one set stands for the stimulus of the sensation, the signal which leads to the development of the complete cognition, while the other set is simply the cognition itself which directly represents the object. We have, then, two sets of symbols

which stand in the following relation : the one symbolizes an activity by which the objective existent stimulates consciousness to a present sensation ; the other symbolizes the sum of activities from the same source which have given rise to sensation at any time and whose symbols are recalled in consciousness in connection with the present sensation," (p. 244). From the other side, there is equally no interaction between the will and the resulting movement, because the movement is, again, only a symbol. The primary difficulty which this analysis avoids is the difficulty of supposing an interaction between consciousness and the physical, taken as a thing-in-itself. But, so far as I understand it, there is a more fundamental difficulty which it does not reach. If, as Professor Ormond seems to say, there is an actual influence of ourselves upon the real existents underlying the symbols, then the activity of these is altered, and the symbols which express them are other than they would have been had there existed only the realities we call physical as preceding conditions, — a situation still needing some attention from the standpoint of the rigidly scientific ideal. As regards the reality which is thus symbolized, Professor Ormond apparently subscribes to the interpretation which reduces this to terms of psychical beings of a lower order than the human self (p. 260). Against this theory an argument might perhaps be drawn from the place which it holds among Professor Ormond's results. It is a notable exception to his constant effort to exalt the value which philosophical beliefs have for life. This alone among the doctrines of the book seems to end with itself. It finds practically no points of connection with the rest of his philosophy, but satisfies merely a demand of theory. The fact that such a reality cannot easily be made to mean anything for us, in social, religious, or æsthetic terms, might well receive more attention than it commonly does in considering its theoretical plausibility.

To one more general feature of the argument I should like to refer. The main interest in recent times has been to apply the natural science method as far as it will go. The question of its proper limits has not received the consideration it deserves. Professor Ormond's results may not be wholly acceptable, but they at the least present the issue sharply, and call a halt to a good deal of loose assumption that is current. Speaking generally, Professor Ormond finds the possibility of an explanation in terms of natural causation only in those sides of life which are spontaneous, the operation of impulsive and unreflective forces. A movement determined by reflective motives, on the contrary, — that is, by prevision and purpose, — falls definitely under the

category of finality, and cannot profitably be treated under the rubrics of natural science (p. 317). Thus, for example, there still is large room in social theory for naturalistic explanation. Comparatively little social action is the outcome of reflection and prevision. Even had the individual units all reached the stage of deliberate action, yet community action always is more spontaneous and unreflecting than individual. Common interests tend by their nature to conform to the laws of the habitual, and by reason of the magnitude of the operations the possibility of reflective control is limited. Nevertheless, reflection is a real social force, and the moment such reflection works in the way of determining ends, we cease to be merely expressions of natural law. As Professor Ormond points out, practically the most dogmatic of naturalistic philosophers are sure by implication to place their own opinions outside the compulsion of mere natural necessity; and their practice is better here than their theory. It is suicidal to make no difference between beliefs and actions due to the natural workings of forces in us we do not understand, and that attitude which has become self-conscious and self-directive. In the social realm the great business of the reflective forces is to suggest variations in the form of social ideals. "It is in this phase of them that the movements of society tend always to transcend the methods of natural science. The spontaneous forward-impelling forces of society may be estimated in terms of natural causation. But what value has such a principle in determining the force of an ideal? In its very nature an ideal is teleological and final. It attracts rather than compels, and its whole force depends on its first having been thought or conceived, and, secondly, on its being elevated into a purpose of action. It then becomes a principle of conduct, and inspires practical activity" (p. 321). The same general distinction holds good in the treatment of ethics and religion.

In conclusion, I may return to the main outcome of the book, and indicate once more what seems to me its merit, and also what is its defect. The volume is in effect a philosophy of religion. It attempts to show, and as it appears to me with much success, that our demand for rationality leads us to pass beyond both natural science and the laws of merely human experience, ethics and sociology. As the 'ground' of science needs to be interpreted in the light of the method of metaphysics, so the ends which give worth to human life fail rationally if they do not get their completion in a more ultimate reality. "If we are to redeem the whole social world from the ultimate reign of accident or blind fate, it must be by connecting it with the intelligence and purpose of some eternal consciousness which is

capable of comprehending the whole," — something above the limitations and impotence of merely human agents. And similarly an ethics which reduces itself simply to the community consciousness, shares the limitations and the relativity of this. To ground rationally our faith in the social and moral order, we need to pass beyond these to religion. Philosophy has been too ready in recent times to minimize the possible rational value of the religious concept. It has become afraid to use the term God, and he who does use it is likely to be accused of having abandoned real explanation, and taken refuge in an appeal to ultimate mystery. It is true, doubtless, that the appeal can easily be made illegitimately. When we are trying to explain some matter in particular, as in science, it is obviously not proper to have recourse to divine power. If we have a problem of rational analysis on hand that we cannot get clear, we do not mend matters by supposing that in some unknown way it is cleared up in a perfect intelligence. But when it is a case, not of explaining things in particular, but of interpreting the nature of things as a whole, it is a different matter. To assume here that the idea of God has no value of a strictly philosophical kind, not indeed as a substitute for, but as a necessary completion of the lower categories of so-called scientific explanation, is to make a very large assumption indeed. The justification not only of our right to try such a path, but of the strong rational motives which point to it, is set forth with much impressiveness in Professor Ormond's book.

But while the justification of such an extension is forcibly argued, the way of carrying it out is left rather vague. Compared with the remarkably clear cut treatment of the scientific concepts, the religious concept is largely taken on trust, and this seems to me the point in which the book is weakest. The religious hypothesis involves, as Professor Ormond reiterates, the principles both of analogy and of transcendence. These would seem to need some reconciliation. Professor Ormond apparently thinks they can be reconciled, but the task remains for the most part unattempted. The result is that there is an unfortunate look of incompleteness in the whole structure. What are the changes that have to be made, and how can they be made, before we are in a position to apply the concept of the self to God? Teleology, *e. g.*, with its separation of idea and attainment, — can we fit this into Professor Ormond's conception of God? How are we to rationalize the concept of creation? How can God, as absolute and eternal, take up the 'spurious' eternity which belongs to us as beings in time, a question which is not to be settled by the use of adjectives, and which there has been but scanty attempt on the part of idealistic philosophies

to meet seriously? Questions like these a systematic philosophy which emphasizes so much the rational basis of religion needs to consider more carefully than Professor Ormond attempts to do. We may hope that they are merely postponed for a further volume.

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The Myths of Plato. By J. A. STEWART. London, Macmillan & Co.; New York, The Macmillan Co., 1905. — pp. xii, 532.

The problem of the true purpose and scope of the Platonic myths is one of the most curious questions which confront the student of ancient thought. As to the imaginative charm and literary grace of these stories of the beginnings of things, the origins of society, and the wanderings of the soul, there have never been two opinions. But it has always been a moot point what function Plato intended his mythical narratives to discharge, and what relation he supposed to exist between them and the body of his reasoned philosophy. According to the great Neo-Platonists, the function of myth is to present in the form of symbolical narrative principles which transcend the comprehension of the 'discursive' rational understanding. From this point of view, the myths become, one might almost say, the crown and culmination of Platonic philosophy; and the Neo-Platonic thinkers from Plotinus to Proclus attach the greatest importance to allegorical exposition of their meaning. On the other hand, many modern scholars and philosophers, following the lead given by Hegel in his *Geschichte der Philosophie*, tend rather to regard the myth as a mere concession to the mental deficiencies of the average man, an imaginative presentation for the 'multitude' of theorems which can be, and ought to be, apprehended by the true philosopher in a purely rational, scientific, non-mythical fashion. The theory worked out with much ingenuity and ability by Professor Stewart belongs definitely to the first of these two types of view. Profiting by the existence of modern anthropological studies, he is able to avoid the Neo-Platonist error of confusing myth with deliberate allegory; but his general conception of the place of the logical intellect in the scheme of things leads him to adopt what is virtually the Neo-Platonist estimate of the worth and function of the myth. The logical intellect, he holds, never penetrates below the surface of things; its function is merely, as Kant taught, to connect the objects of possible experience into a coherent system by means of its apparatus of categories. But the concepts in which humanity, and therefore philosophy, is most fundamentally and vitally interested,

God, the Soul, the Universe, are not objects of possible experience, and thus do not fall under the province of the discursive intellect and its categories. No scientific knowledge of them, then, is possible. What, then, is their significance for the mind, and how does it succeed in apprehending them? These great 'Ideas of Reason,' it is answered, correspond to the practical postulates of feeling without which thought and action would both collapse, the feeling that life is worth living, that duty is of infinite significance, that the world-order is fundamentally righteous. These deepest convictions are not matters of scientific cognition but of emotional attitude towards things; thus they belong not to the intellect but to that deeper, inarticulate, 'vegetative soul' of which intellect is a mere off-shoot. If they are to be put before the intellect for contemplation, this must, therefore, be effected by imaginative symbolism. Here comes in the function of the myth. A myth is essentially a waking dream, a series of imaginary incidents interesting, not as a deliberate allegory of concepts already familiar in an abstractly scientific form, but for their own sake, which have the power to evoke and sustain the 'transcendental feeling' of the worth of life, the significance of duty, the purposiveness of existence. The value of the myth for philosophy lies not in any scientific theorems adumbrated by it, but in the fact that the emotional mood thus awakened in the moment of 'ecstasy,' or sudden lapse into dream-life, may persist after the transition back to waking consciousness as a permanently ennobling and inspiring influence. What Aristotle says of the mysteries upon which Plato's myths are so largely based would thus be no less true of the myths themselves; the initiated do not learn any truths, but are emotionally affected in a certain way.

Striking as this conception is, I venture to think that it does not really represent altogether correctly Plato's own attitude towards the use of myth in philosophy. In the Neo-Platonic and Kantian principles assumed as its basis, there is an element of mysticism which appears to me, as to Professor Burnet,¹ foreign to the genuine thought of Plato. The underlying thought from which the whole theory is deduced is, in fact, that the highest realities are, in their own nature, incapable of being adequately conceived by the rational intellect, or, at any rate, of being objects of rational cognition. They must be represented by symbols because they transcend our powers of direct reasonable apprehension. I will not here discuss the question whether this doctrine is philosophically true or not; in any case, it seems to me demonstrably un-Platonic. If there is one thing which appears

¹ See his recent notice of Professor Stewart's book in *Mind*.

more clear than another in the famous epistemological passage at the end of *Republic* VI, it is that Plato demands from his philosophers a knowledge of the highest realities, including the 'Good,' the central reality of the whole universe, which is to be as rational and systematic and independent of sensuous symbolism as the mathematician's knowledge of the integers or the conic sections. A mysticism like that of Professor Stewart, or an agnosticism like that of the *Kritik der reinen Vernunft*, to my mind, makes the whole Platonic 'dialectic' of none effect. 'Dialectic,' in fact, stands for the conviction that the ultimate realities are, in their essential character, νοητά, knowable by reason through and through, however far reason in its actual development may still fall short of having apprehended them. It is in keeping with this unqualified rationalism that, as Professor Burnet has remarked, Plato's language, whenever he comes to talk about the supreme realities of his intelligible world, the 'Ideas' themselves, at once becomes as straight-forward and unmystical as Euclid. Nor is it any reply to this criticism to urge that in the *Republic* itself the 'Idea of Good' is only described by means of a symbol; this is to commit the common error of forgetting that the Platonic Socrates is a dramatic character. The inability of 'Socrates' to explain what the 'Good' is without a symbol affords no evidence at all for the conclusion that Plato held such explanation to be impossible in principle.

Nor, again, would it be safe to rely upon the consideration that, when Plato treats of the Kantian 'Ideas of Reason,' God, the Soul, the Cosmos, it is always in a mythical fashion. For the fundamental difference between Plato and Kant is precisely that to Plato it is not God, Soul, Cosmos which are the supreme objects of philosophical contemplation, but the world of transcendent, archetypal νοητά. The problems for which such terms as God, Soul, Cosmos stand are all problems connected with the series of events in time, and as such belong, on one side at any rate, to the world of 'becoming,' which for Plato is only half real. These problems have, in his opinion, to be relegated to the domain of myth or 'probable narrative,' not because they are too exalted to be dealt with by the scientific reason, but because they are not exalted enough for it. In fact, whereas Kant, as we know, confines science within the limits of 'possible experience,' Plato, it is not too much to say, holds that genuine scientific knowledge is always and only of that which falls outside 'possible experience'; what we *know* (e. g., the truths of pure geometry) is precisely that which experience can merely suggest but does *not* verify. In a word, the knowability of the 'transcendent' is as essential a

principle of the Platonic as its unknowability is of the Kantian philosophy. Aristotle saw this clearly enough, and hence his persistent hostility to the Platonic doctrine of 'Ideas.' The history of recent Platonic exegesis affords only too many examples of the violence which has to be done to Plato's emphatic and reiterated professions of belief by interpreters who are determined to identify Platonism with Aristotelianism or Kantianism by the elimination of this characteristic element. Professor Stewart, for instance, in order to effect his *rapprochement* between Plato and Kant has actually to credit Plato, who demands knowledge of the transcendent and universal 'Form of Good' as the first requisite for philosophical statesmanship, with the doctrine that the 'Good,' because a condition of knowledge, cannot be an object of knowledge at all (p. 59). Similarly he has to suggest, in the face of the apparently earnest tone of the arguments for immortality in the *Phædo* and *Republic*, that Plato, like Kant, regards the immortality of the soul as a notion which may exercise an ennobling influence upon conduct, but which it is simply futile to bring to the bar of the logical and scientific intellect at all. Indeed, in at least one passage (p. 55 ff.), he seems to me to go very far beyond Kant himself and to come perilously near the surely un-Platonic view that the 'Ideas of Reason' are, after all, not only unverifiable but very possibly not true, and that the function of the myth is to blind the philosophic student to the real unsatisfactoriness of the universe by making it psychologically possible for him to acquiesce in comforting falsehoods.

It is in keeping with the general attitude of Professor Stewart's book, that he consistently adopts in his translation of the various Platonic myths a highly artificial and archaising diction, modelled apparently upon that of the authorized version of the Bible, but, to my own sense at least, decidedly more antique. The effect of this curious style is, of course, to give to the Platonic myth, as a whole, a character of conscious solemnity which would be appropriate enough in particular passages (such, *e. g.*, as the address of the 'prophet' in the Myth of Er to the souls who are about to be reincarnated), but which is certainly not distinctive of any myth as a whole when compared with its non-mythical framework of dialogue.

With respect to the details of the text and translation offered of the several myths, it may be suggested that at any rate in the portions taken from the *Timæus* some later and better Greek text than that of Stallbaum's 1867 edition should have been adopted. It is true that Professor Stewart introduces a few absolutely necessary improvements

upon Stallbaum; but, in at least one case, an inferior reading is retained which implies misconception of Plato's thought on a fundamental point. (*Timæus* 92 B, εἰκὼν τοῦ ποιητοῦ, "image of its Maker," for εἰκὼν τοῦ νοητοῦ, where, by the way, νοητοῦ means νοητοῦ ζῴου, not νοητοῦ θεοῦ.) The translation, though often happy in the successful turning of difficult expressions and constructions, betrays some marks of haste or want of revision. There are occasional passages (*e. g.*, there is one on p. 269, l. 27) where the English rendering is quite incompatible with the punctuation adopted for the Greek text. Sometimes, again, there are distinct mistranslations (*e. g.*, the rendering of πνίγος, "choking heat," by "frost" on p. 151), though none which seriously affect the sense.

Though it seems to me, for reasons given above, that Professor Stewart's theory of the significance ascribed by Plato to myth is mistaken on a point of fundamental importance, I would strongly recommend his work to all lovers of Plato and all lovers of imaginative literature. Quite apart from any question of Platonic exegesis, Professor Stewart's discussions of the nature of myth in general and the psychological secret of poetic effect seem to me of great suggestiveness as contributions to racial psychology and æsthetic theory. One might perhaps wish that he had made rather less of the contrast between the 'dream-consciousness' and the state of waking life, and had shown a little more scepticism about the subliminal self. After all, our state of mind, when we read Shakespeare or Wordsworth, is surely, in most cases, as unlike that of hypnotic trance as it is unlike that of bargaining in the market or planning a railway journey. But it is well to have had the power of visual images and their verbal echoes to awaken 'transcendental feeling,' and the fundamental distinction between myth and allegory, put so clearly before us and illustrated with such wide learning and so much literary charm. In particular, all students of the history of literature should be deeply grateful to Professor Stewart for the wealth of curious information he has provided as to the indirect influence of the great Platonic myths upon the cosmology of the greatest of all the products of the myth-making imagination, the *Commedia* of Dante.

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The Fundamental Principle of Fichte's Philosophy. By ELLEN BLISS TALBOT. (Cornell Studies in Philosophy, No. 7.) New York, The Macmillan Co., 1906. — pp. vi, 140.

The avowed purpose of this monograph is to make a careful study

of Fichte's conception of the ultimate principle of the universe. The first chapter gives a brief account of the relation between Kant and Fichte, with the object of showing at what critical juncture in Kant's doctrines it was that Fichte set out to complete the master's work. For it is to be borne in mind that Fichte always regarded his work as the fulfilment of the fundamental aims and tendencies of Kant's philosophy. Fichte's point of departure Miss Talbot finds in the Kantian opposition of the chaotic manifold of matter or sense, and the pure or abstract unity of form or thought. The dualism of form and matter was never in principle overcome by Kant. Although hints of a higher synthesis were given in the *Kritik der Urtheilskraft*, these hints remain entirely within the subjective sphere of feeling. Human knowledge, as Kant conceives it, never escapes from the radical antithesis of matter-form, subject-object. On the other hand, in his frequent references to an *intellektuelle Anschauung*, Kant suggests the notion of "a pure self-consciousness which is its own object, a self-consciousness in which the act of unifying the manifold is at the same time the process whereby the manifold first comes into being" (p. 7). In other words, the *intellektuelle Anschauung* is a self-active intelligence, continuously creating its objects by the act of thinking. But this conception remains, for Kant, problematic, an ideal that could not be worked out with reference to the world of actual thought and experience. The same dualism recurs in the *Kritik der praktischen Vernunft* as the opposition of duty and inclination. The problematic idea of a unitary intelligence Fichte took up and, making it the starting point for his whole system, worked it out. "The thought that subject and object *must* be a unity, that the apparent dualism in our knowing *cannot* be ultimate, is to be credited, not to Kant, but to Fichte" (p. 9). Fichte holds that this ideal of human thought is at the same time the real essence of human thought; in short, that the Idea of the Ego is the active productive principle of things. Kant succumbs to the dualism in human experience. Fichte recognizes this dualism and endeavors to find, in the very ideal of the universal Ego or synthetic unity, a principle by which the dualism is overcome.

In the second chapter Miss Talbot takes up the works of the first period, in which Fichte commonly calls the ultimate the Ego. This Ego is to be conceived not as pure subject, but as the unity of subject and object. Fichte's philosophy is not a subjective idealism. The key to the ultimate principle is consciousness in its dual aspects of subject and object, and this principle must be a unity of subject and object, always implicit but never wholly explicit in human conscious-

ness. Our author examines carefully the grounds on which it is maintained that Fichte identified his ultimate principle with the formal or subjective aspect of experience. She acutely argues that, while Fichte always insists that intelligence and not the thing-in-itself is the ultimate ground, intelligence contains a double series, and that Fichte seems to have used the term 'Non-Ego' in two very different senses: first, as the objective principle in consciousness; second, as the thing-in-itself. There is a very clear statement of the meaning of Fichte's deduction of the Non-Ego from the Ego in terms of the theory of judgment as two-sided, negative as well as affirmative. The self-limitation of the Ego by the Non-Ego raises the question as to the *why* of the *Anstoss* that occasions this self-limitation. The answer, of course, is that only through a self-limiting self-expression can the absolute Ego really be an Ego for itself, *i. e.*, only by breaking forth into a world of conscious finite individualities.

The idea of the Ego remains for Fichte an ideal, unattainable in human consciousness, but nevertheless positively implicated therein, immanent in the activity of finite individuals. The Ego is a self-developing form, and human consciousness is the medium of its development. "Human consciousness . . . is a necessary stage in the realization of the ideal unity of content and form" (p. 41).

Miss Talbot next proceeds to a thorough examination of the question as to whether Fichte conceives his principle as mere abstract form or as unity of form and content. She finds traces of both conceptions in the leading works of Fichte's first period. There are, then, two contradictory tendencies in his thought; but Miss Talbot holds, rightly I think, that Fichte usually rises above the notion of the goal of the infinite process as blank identity, to the notion of it as unity which includes and preserves all concrete differences without thereby ceasing to be a unity. It would follow, of course, that in his system form and matter, reason and natural impulse, are not abstract opposites. The chapter concludes with an examination of the charge that, logically, Fichte's position involves the doctrine that the ideal is purely formal. Evidence is adduced in abundance from his writings to show that, while Fichte regarded the goal or ideal—the Godhead—as transcending our conceptual consciousness, he viewed it as a life and activity of higher power than consciousness just because it transcends the dualism of subject and object in which our consciousness is involved. Light is thrown on this view by Fichte's conception of the nature of individuality. The Divine Idea realizes itself in history in every individual life, but most fully in those lives that make themselves organs

of the Universal Divine Idea. True individuality is realized by the service of great ideas, and, although in this service sensuous individuality is merged and lost, the higher individuality is thereby attained.

The third and concluding chapter, entitled "Being and Existence," is devoted to a careful examination of the writings of the second period. The *Darstellung* of 1801 is found to be in harmony with the prevailing thought of the first period of Fichte's philosophy; but it is now explicitly stated that, although knowing is absolute, it is not the Absolute, but only its supreme manifestation. In opposition to some interpreters of Fichte, Miss Talbot maintains that this does not mean that, in his second period, Fichte regards the Absolute as fixed, static being. She rightly points out that, whereas in the first period by 'being' he means the thing-in-itself, in the later works he identifies being with life and activity. The difference between the two periods is to be regarded chiefly as a shifting of emphasis from the temporal aspects of the Absolute to its timelessness, from the world of progressively realized values to the supreme principle of values. The supreme value is a principle of activity. The *Sollen* which is the ground of finite existence is in itself changeless and eternal. There is in the second period a marked tendency to distinguish between the Absolute and its manifestation, but this tendency is likewise discoverable in writings of the first period. Moreover, in the second period the unity of the temporal and eternal is also maintained. In Fichte's final view the Absolute is not negative. "All our thinking and all our acting are a revelation of its inmost essence" (p. 91). The *Sein* and *Dasein* of the Absolute are necessarily interrelated. The ground of all determinate actuality is freedom. But freedom can only manifest and realize itself through overcoming an obstacle. This is the law of its being by which the Idea of the Ego becomes an Ego.

The Divine Life in itself is a self-enclosed unity devoid of multiplicity or change. In its manifestations it becomes an infinitely developing and ever-ascending life in an endless time-process. The relation between *Sein* and *Dasein* is a necessary one; but the world of *Dasein*, as the manifestation of *Sein*, is grounded in freedom, since *Sein* expresses itself therein. The Ego can come to consciousness in the realm of finitude and multiplicity only by the struggle of subordinating lower impulses to higher. But this whole process in the finite many, in the changing world of existential reality, is grounded on a primal act of freedom. By the *Sein* of the Absolute, then, Fichte means the eternal changeless reality of the Supreme Value, the "quintessence of value." This value manifests and realizes itself in the

world of existential reality in the shape of the intellectual, moral, and æsthetic values of history. As self-realizing value, the ultimate principle is more than a mere value. "It has validity quite irrespective of its realization" (pp. 111, 112). The ought-to-be is identical with the is-to-be. *Sollen* and *Sein* are ultimately one, and the objectivity of all values depends upon this ultimate principle.

How, then, does Fichte conceive this Absolute, the ultimate reality implicated in values? Miss Talbot tentatively answers that Fichte apparently did not conceive it to be a universal consciousness. The Absolute is conscious only in and through us. Nevertheless, as the ultimate ground and unity of values, it eternally is. There are two interesting appendices on Kant's '*intellektuelle Anschauung*' and his 'I think.'

Miss Talbot's monograph is a thorough piece of work, marked by sound scholarship and genuine philosophical insight. The treatment is well proportioned and as clear as the subject matter will permit. The work as a whole is an admirable discussion of the main principles of Fichte's philosophy, and one could not ask, for one entering upon the study of Fichte, a much better guide. One might perhaps wish that certain points, such as the relation between the theoretical and practical parts of the *Wissenschaftslehre* and the *Sittenlehre* had been more fully dwelt upon; and a little more space might have been given to the discussion of Fichte's notion of consciousness in relation to the Absolute. But the work as a whole is very thorough and very illuminating. In my own opinion Miss Talbot's interpretation is sound on all essential points and she has not omitted any of them.

In Germany Fichte has evidently come into his rights as an important link in the great post-Kantian movement. English and American thought has tended rather to pass directly from Kant to Hegel. My own opinion is that neither Fichte nor Hegel can be ignored if philosophy is to make genuine progress. Moreover, it is now becoming somewhat fashionable to conceive philosophy as the science of values. Miss Talbot's monograph should have the effect of recalling American and English students to the intrinsic merits of Fichte's treatment of values. For, if philosophy be the science of ultimate values, it cannot rest in the pure phenomenalism of a descriptive psychology of values, but must become, in the spirit of Fichte, a metaphysic of values. Such monographs as the present one are not mere pieces of philosophical archæology. They set the contributions of great thinkers in a clearer light, and so furnish points of departure for the systematic investigations of the present.

Apollonius of Tyana, and Other Essays. By THOMAS WHITTAKER.

London, Swan Sonnenschein and Company, 1906. — pp. viii, 211.

This volume contains three historical papers, "Apollonius of Tyana," "Celsus and Origen," "John Scotus Erigena," followed by three shorter discussions, "Animism, Religion, and Philosophy," "A Compendious Classification of the Sciences," "Teleology and the Individual." The first of these essays has already appeared in *The Monist*, and the fifth in *Mind*; the others have not hitherto been published.

The historical papers connect themselves, the first two directly, the third remotely, with a period in which Mr. Whittaker seems to have a special interest, the period (roughly speaking, the third century) in which Christianity was taking its place as the organizing power of the life and thought of the world, but the men of the old order still had hope of being able to maintain the ancient system of culture and religion, and were rallying all its forces to meet the spiritual needs of the age. Philosophy became an effort to guide man to his salvation; and as the evil grew deeper and men more and more despaired of the world, the guidance underwent an inevitable modification. Stoicism, with its belief in a reason immanent in the world, more and more gave place to philosophies which directed men's hopes away from the world to a transcendent God, in union with whom is that completeness of salvation in which we are delivered both from ourselves and from the evil of the world. The historical dialectic, that is to say, which governed the last vital movements of ancient thought, was a dialectic that led away from Stoicism toward Neo-Platonism. But, naturally, there were intervening stages; and one of these is seen in the school of which Apollonius of Tyana is a representative, in Neo-Pythagoreanism. Outwardly this school was Pythagorean; it felt a kinship with that ancient school which had been in reality a brotherhood for the purposes of the higher life, intellectual culture, the pursuit of ceremonial holiness, the regeneration of society by the political supremacy of the saints. But intrinsically Neo-Pythagoreanism was a transformed Platonism, renouncing the world and the flesh and worshipping a transcendent God. With this position the little that we know of Apollonius as a religious founder, "a reformer of Greek religion from within," agrees. Spirit and matter he sets in sharp opposition. Life, therefore, must be ascetic, a course of purification from all bondage to the flesh; and religion must be spiritual. The one transcendent God is to be apprehended only by reason, and worshipped only spiritually, without offerings and sacrifices which, since

they are material, are essentially impure; while, if offerings are brought to the inferior gods, these offerings must at least be bloodless.

But as with Pythagoras, so with Apollonius; when the man was gone, and his actual works well-nigh forgotten, his name was made a force in the world through the power of historical imagination. A 'Life' of Apollonius, a romantic fiction philosophical and religious in motive, and having imbedded in it no one can tell how much or how little of historical fact, was written by Philostratus early in the third century, and thus 'Apollonius' was made a factor in the struggles of the period in which Mr. Whittaker is specially interested. The work of Philostratus was doubly useful to the men of the ancient cause. It gave them an admirable figure to which they could point as they argued against the new faith. And it was capable of still more ingenious uses. Hierocles, Proconsul of Bithynia, seized upon it to show that the argument from the miracles of Jesus could be paralleled by a similar argument from the wonderful works of Apollonius; a contention which called forth an answer from Eusebius of Cæsarea. The purpose of Mr. Whittaker's essay is to put his readers into possession of the central documents of this interesting chapter of history by giving them an abstract of the 'Life' by Philostratus, and of Eusebius's answer to Hierocles.

The paper on Celsus and Origen deals with a more familiar part of the conflict, and I shall confine myself to a single criticism. Mr. Whittaker has keen eyes for the merits of Celsus as a champion of the ancient culture. He is not to be blamed for that; but of the 'liberty of philosophising' in which he so heartily believes, he would have been a more faithful and a more winning exponent if, in dealing with Origen, he had allowed himself to see that great man as, with all his defects, he really was, — a scholar of comprehensive and profound intelligence, of generous sympathies, of truly philosophic reasonableness of spirit; a man whose character and work are best described by saying that with spacious mind and spacious heart he lived in the love of God. The student who would have a sympathetic modern estimate of Origen, should turn to the essay in Bishop Westcott's *Religious Thought in the West*.

With regard to the paper on Scotus Erigena, I need speak only a word of commendation for Mr. Whittaker's work in making us better acquainted with that subtle and enthusiastic mind, so remarkable both in itself and in its relation to earlier types of philosophy. But before leaving the three historical essays, I must refer to what is, in one sense, the most important point in them: the view taken of the Chris-

tain religion, the Catholic system, and the Middle Ages, in what may be called Mr. Whittaker's 'philosophy of history.' To him the ancient civilization, with its 'liberty of philosophising,' was a true order of life, having intellectual freedom as its saving salt, and falling at last not "by intrinsic decay" but "by the invasion of alien forces." The conquest of the world by Christianity meant the establishing of a "theocracy" which was a "Kingdom of Darkness"; and in the bonds of that darkness the mediæval world was held. With that course of history Mr. Whittaker likes to contrast the imaginary history, sketched out by M. Renouvier in his *Uchronie*, in which the Western world, free from Eastern religions, works out its own intellectual, social, political, and religious evolution, and in the ninth century attains a civilization almost equal to that actually attained in the nineteenth.

Leaving aside the special points in which one would have to challenge Mr. Whittaker's view of ancient civilization, or to agree with his impeachment of the Catholic system, and considering only the broad lines of this view of history, one must urge, it seems to me, that it is faithful neither to facts nor to philosophy. As to the facts, let the student consider the actual moral and social condition of the later Empire, and the actual work and influence of the 'philosophers' in that society (see, for instance, Hatch's *Influence of Greek Ideas and Usages upon the Christian Church*, especially the second and sixth Lectures), and decide for himself whether that world, with all possible 'liberty of philosophising,' could have saved itself without the prevalence of a religion which could win and comfort the hearts of the poor, and could encourage even the worst of men to lift up their hearts to God by teaching them that the Son of God fulfilled Himself by taking upon Him the form and the life of man. Then let him consider the beginnings and the constituent elements of the mediæval world, and ask himself whether, without some such bond as the Catholic system afforded, society could have been held together long enough, and firmly enough, and with enough of intellectual and religious culture, to enable the political order of the modern nations to develop. And Mr. Whittaker's philosophy of history, as it sins against fact, sins also against philosophy. The 'philosophising,' in whose saving power he believes, and whose liberty all modern men desire, is an intellectual activity which has as its presupposition a faith in the rationality of things,—in the rationality of nature and of history. And such a faith does not allow the philosopher, who presupposes it at every step of his work, to hand over a whole world-age,

or the order and institutions of such an age, to unreason. In dealing with the place of the mediæval period and of the Catholic system in history, Comte's view is truer to the spirit of philosophy than Mr. Whittaker's; and to that spirit Hegel's view is still more faithful than Comte's.

I have left myself no space to discuss the three short 'positive' essays, but may perhaps be allowed a single criticism of the excellent paper on the classification of the sciences. Knowledge is one; its object is one. It would be better, therefore, in classifying the sciences, to set aside the distinction between subjective and objective sciences, and to regard the sciences as a single series advancing from more abstract to more concrete views of a single object-matter. This would be to restore (and, I should argue, to extend) Comte's 'linear' order, in place of Mr. Whittaker's 'circular' order. The last essay, "Teleology and the Individual," is in some respects the most interesting in the book; and those who, like the present writer, would wish to carry its argument much further than Mr. Whittaker has carried it, need not welcome it the less warmly.

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NOTICES OF NEW BOOKS.

Etudes de morale positive. Par GUSTAVE BELOT. Paris, F. Alcan, 1907.
— pp. 523.

Professor Belot has gathered together in this book a number of instructive ethical studies which have been published by him at various times and in different journals. The first two chapters, entitled: "In Search of a Positive Ethics," and "Utilitarianism and its Recent Critics," discuss general questions, questions of method and principles; while in the succeeding chapters on Veracity, Suicide, Justice and Socialism, Charity and Selection, and Luxury, these principles are applied and verified. In the discussion of Veracity, Suicide, and Luxury, the author opposes his own social standpoint to the standpoint of metaphysical individualism, and attempts to solve what he confesses to be the most difficult and serious problems confronting a social ethics. The chapters on Justice and Charity, on the other hand, direct the attack against a pseudo-scientific, naturalistic interpretation of these virtues, and repudiate the effort to base them upon a science of infra-human nature.

Professor Belot's fundamental purpose is to determine and to reconcile in the notion of a positive ethics the part played by fact and the part played by the ideal, the rôle of reality and the rôle of reason. The term 'positive' ethics is employed by him not to serve as the label for a school, but to describe an undertaking independent of religion and metaphysics. The claims of the scientific method are defended against all such theories as pretend to *construct* morality without first telling us what it *is*. The moral fact is a spontaneous product of social life, which we must know by observation before taking it as a practical norm. That is, morality is essentially social, in its practical content as well as in its origin.

But it would be fallacious, according to our author, to conclude that, because morality is a fact revealed by sociological observation, ethics is therefore comparable to a technical art based upon sociology. Above all the particular problems of practical morals is *the* moral problem properly so-called: *to make a society exist*. It is to be remembered that society is not only the *milieu* of every human activity, but that *life in society* is the condition imposed upon all the special ends or purposes of man. Whenever any one wills anything, he wills, in principle, society; life in society is the common condition of all activities and of all human ends, whatever they may be. Society is therefore not only a fact, but an idea, an end; to make it exist is the general formula of practical morality, while the particular problems of morality most often consist in harmonizing wants, interests, and institutions, which already exist. According to this theory, Professor Belot points out, it is no longer sociology which makes ethics possible; it is,

on the contrary, ethics which tends to establish a society which man can *think* and which he can *shape*.

The author regards as futile every attempt to base a duty upon an existing fact. No fact, as such, can be an adequate principle of moral judgment. Authority, tradition, habit, and instinct cannot be, by themselves, principles of morality. To declare a rule valuable because it emanates from a divinity, or from a nature, or even from a society or a reason, is to reproduce in morals the command of the king who commands because he is the king. Morality cannot be based upon any external fact; man as a moral being belongs to himself and is responsible to himself for his fate. His ultimate duty can only be his most fundamental will. And man cannot be autonomous except through self-discipline, he cannot acquire power over himself except by submitting to the power of others, by becoming an integral part of human society, by socializing his will.

Morality, however, is itself a fact; we do not have to imagine or invent it. To avoid losing itself in an abstract conception of morality, ethics ought to confine itself to determining the norm which is actually given as a moral norm. It must proceed inductively from the sum-total of the judgments unanimously accepted as moral in a certain environment, and determine in a general way the nature of the content of the ethical rules holding for each society. Such an induction will show that the moral judgment is pronounced only upon a conscious agent, and only in so far as his conduct is regarded as affecting the interests of others and, ultimately, the interests of the social group to which he belongs. It also shows that the moral rules are, for a given society, the rules which the collective body imposes upon the individual in the interest, apprehended or only felt, real or imagined, of the collective body itself which sanctions them.

Professor Belot's book is an able representative of modern teleological ethics, and a good antidote for the ultra-sociological interpretations of morality which are particularly abundant in France.

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The Syllogistic Philosophy, or Prolegomena to Science. By FRANCIS ELLINGWOOD ABBOT. Boston, Little, Brown, and Company, 1906. — Vol. I, pp. xii, 317; Vol. II, pp. vi, 376.

These volumes were intended by the late Dr. Abbot as an elaboration of a philosophical system, the leading outlines of which were presented in his two earlier expositions entitled respectively *Scientific Theism* and *The Way out of Agnosticism*.

The earlier and the later volumes have the same virtues and the same defects. They are erudite and earnest, but dogmatic and ineffective. In the *Syllogistic Philosophy*, we have, it is true, a wider erudition; but it is doubtful whether the author's fundamental thought has gained anything by its more elaborate polemical setting. With all due tolerance for a man's

own peculiar and unique way of seeing the truth, we feel that in the volumes before us we have a hyper-sensitive and dogmatic claim to the possession of it, coupled with an unwarranted eccentricity in the way of giving expression to it. There is a great deal of fruitless logic-chopping, and one traverses often an arid waste of mere verbalities. There are, indeed, many pages which reveal genuine philosophical acumen ; but for the most part it must be admitted that the author's thought moves in a world of misconstruction and uncritical dogmatism. This is especially true of his interpretation and criticism of Kant and Hegel. Dr. Abbot seems hopelessly confused as to his relations to the fundamental doctrines of both these thinkers. He occupies the unfortunate position of one who unconsciously stands in his own light. Whatever is true in his theory of universals is Hegelian through and through, and it is his undue polemical zeal and unwarranted assurance of his own originality which obscures his vision of the fact.

It is doubtful, too, whether many philosophical students would agree with him in his interpretation and criticism of Kant. The critical point of view of Kant's idealism is ignored, and an easy victory over it is secured by a process of external and dogmatic criticism, using as its standard and test the author's so-called 'scientific realism' ('assertorical' rather than 'scientific' would be the better name for it). For realism, as a philosophical theory, is not made 'scientific' by merely calling it so, and it may be possible that Dr. Abbot is the victim of one of Bentham's question-begging epithets. Indeed, the writer of this notice strongly suspects that he is.

In his Preface Dr. Abbot has given a brief indication of the nature of his system. "Yet at the opening of the twentieth century I conceive it to be the supreme need of the human spirit to understand that the mechanical philosophy of mere evolution — the evolution without involution, which is the half-truth more dangerous than a lie — is but a step towards the organic philosophy of evolution through involution, as itself but a step towards the spiritual philosophy of the identity in difference of evolution and involution as the continuity of Being in the Absolute Ethical I." "This is the philosophy whose foundation is the absolute nature of the syllogism as necessary relational equation of the involved and the evolved in the world-process — that universal and eternal self-realization of Being through Knowing and Doing which determines the immanent and necessary relational constitution of the world itself to be that of the Absolute Ethical I. It is the grounding of this philosophy in the absolute nature of the syllogistic process, as at once the *a priori* of Being, the *a priori* of truth, and the *a priori* of Right, and as itself the identity in difference of evolution and involution, which renders it a system of philosophical objectivism or scientific realism, in distinction from all systems of philosophical subjectivism, whether a subjective, critical, or absolute idealism, and which not only justifies but requires its name as the Syllogistic Philosophy." "May this book help the world, taught at last to be heedful and not heedless, to tread the path of the only possible salvation from its own follies and sins — the path of free self-moralization in the Absolute Ethical I."

In Vol. I Dr. Abbot begins his philosophical quest with a chapter on "The Axiom of Philosophy." In the Preface we are told of his plan to "unfold in accordance with the one undeviating method of evolution through involution the logical content of the Axiom of Philosophy, not as 'I think, therefore I am,' but rather as 'Human Knowledge Exists.' But I soon saw that it would be necessary to explain the absolute self-groundedness of the original position . . . and the explanation has grown into this present work." The author offers an elaborate criticism of Descartes's starting-point, and suggests his own, 'Human Knowledge Exists,' as the fulcrum by means of which he proposes to lift the world of philosophy out of the despair of doubt and subjectivism and place it on an immovable foundation of certainty and objectivity. "Nothing," we are told (p. 7), "could be more important than the discovery of such a self-grounded affirmation, for philosophy can find nowhere else a beginning which will really begin." "From the very nature of the case, there can be but one such beginning. If all rational affirmations have but one ultimate and universal ground, it follows that the taking of this one ground for the one content of one affirmation will render this one affirmation the only possible self-grounded affirmation. It must be an absolutely unique judgment, in the sense that no other judgment could possibly fulfil the unique function of furnishing to philosophy a starting point absolutely certain yet rationally first. Every other judgment, from the very fact that it is another judgment, must have another content, — not the universal ground of all rational affirmation, but some other content; yet that universal ground is rationally prior to all its consequents, and the affirmation of that ground is rationally prior to all its consequent affirmations. If, then, the universal ground is made the content of a particular affirmation, the affirmation thus self-grounded will constitute the only philosophical beginning which really begins. . . . Its form, then, will be essentially this: Human Knowledge Exists." This is the starting point of the Syllogistic Philosophy, and Dr. Abbot spares no pains and shirks no difficulties in following it out through all of what he calls its progressive meanings. "It may well be termed," he says, "the absolute major premise or the one and only Axiom of Philosophy."

The latter half of the first volume is concerned with subject-matter already familiar to readers of *Scientific Theism* and *The Way out of Agnosticism*. It discusses the so-called Græco-German concept-philosophy. It is as the result of a minute and exhaustive (exhausting!) criticism of these two doctrines of the Universal (the Greek and the German) that we finally emerge from the darkness of phenomenism and come into the clear light of truth as contained in Scientific Realism. This realism is founded "on the necessary objectivity of relations as the law of Unit-Universals. . . ."

As the culmination of the whole search, we pass "from philosophy as Ideality to religion as Reality, that is, from the Syllogism of Syllogisms to the Absolute Syllogism, as identity in difference of Ideality and Reality in

the 'Living God,' the Absolute Unit-Universal, which is at once *summum genus* and *summum individuum*, the I of I's or Person of Persons. . . . Expressed in terms of human thinking, the Absolute Syllogism of the World as the Living God may be thus set down :

(I) . . . We are in I am.

(II) . . . I am in we are.

(III) . . . Therefore I am in I am."

We do not question the earnestness and sincerity which have produced these two volumes, but we do question whether the Absolute Unit-Universal will save his philosophical children from their sins through the message of the Syllogistic Philosophy.

R. B. C. JOHNSON.

PRINCETON UNIVERSITY.

Giordano Bruno, Opere italiane. I. Dialoghi metafisici. Nuovamente ristampati, con note da GIOVANNI GENTILE. Bari, Laterza & Figli, 1907. — pp. xxii, 420.

This, the first volume of Bruno's Italian works, contains the dialogues "La cena de le ceneri," "De la causa principio e uno," and "De l'infinito universo e mondi"; while the second volume, under the heading "Dialoghi morali," will include the "Spaccio della bestia trionfale," the "Cabala del cavallo regasco," and "Degli eroici fuori," all of which were published by Bruno in London between the years 1583 and 1585. In the volume before us is contained all that is essential to a knowledge of Bruno's theoretical philosophy, although the Latin poems issued by him some years later at Frankfort and dealing with the same subject show some slight changes to have taken place in his thought and feeling. The present edition differs from the excellent one of de Lagarde mainly in the modernization of the spelling and the correction of the punctuation which de Lagarde had literally reproduced from the first edition, which in other respects Signor Gentile has also faithfully followed. He has also added notes which are illuminating and instructive. Bruno's philosophy hitherto, among non-Italian students at all events, has hardly received the close and sympathetic attention which its intrinsic value and its historic importance have merited. It is to be hoped that this new and admirable edition will attract many readers to the work of the most original and vitally interesting thinker of the later Italian Renaissance.

E. RITCHIE.

Physiologie et psychologie de l'attention. Par JEAN PAUL NAYRAC. Ouvrage récompensé par l'Académie des Sciences Morales et Politiques. Prix Saintour, 1905. Paris, Félix Alcan, 1906. — pp. xi, 223.

Since psychology assumed its present scientific character, attention, because of its pedagogical as well as psychological importance, has been much studied in the several ways approved in the investigation of all

mental phenomena. As a consequence, there has accumulated a wide, assortment of physiological, psychological, and pathological facts which await correlation and unification in some theory that recognizes and shows the complex, psycho-physical character of this erstwhile 'faculty.' This Nayrac has endeavored to give in his discussion of the subject. He has gleaned widely and judiciously, and his theory, being founded upon the biological principle of adaptation, is both comprehensive and suggestive.

There are three main divisions of his discussion, treating respectively of the Physiology of Attention, the Psychology of Attention, and the Pathology of Attention, and a concluding chapter entitled "Reéducation et éducation de l'attention."

In the first chapter he has collected an interesting array of facts all going to prove the intimate relation between this form of mental activity and concomitant changes in the entire physical organism. Attention is 'mental adaptation,' but it implies and demands the coöperation of the whole body. It is the highest function of the nervous system, and is of central not of peripheral origin.

The chapter on the psychology of attention seems disproportionately abbreviated, though the author could justify his treatment on the ground that more study is now being given to the physiology and pathology than to the normal psychology of this subject. The most significant part of this chapter is his discussion of the relation of attention to effort and to volition. These are three stages in the biological process of mental adaptation: attention is a state of mind, a mental attitude, while effort is the process toward that state; he agrees with Professor James in making volition and attention two forms of the same kind of mental activity, but prefers to say that volition is rather the logical outcome of attention. This synthesis gives a wide horizon to his subject and serves as the basis for his remarks on the effect of attention upon clearness of thought, association, memory, and freedom.

Under the pathological aspect of his subject, he shows the importance of attention by establishing the fact that there is, as it were, a hierarchy of mental powers, and that the higher forms of mental activity are the first to be affected in all forms of mental disorders. The loss of power for sustained, deliberate attention is, therefore, one of the first marks of mental degeneration.

The chapter entitled "Reéducation et éducation de l'attention" in the first section treats of the therapeutics of pathological cases by such methods as isolation, physical exercise, and suggestion; the remainder of the chapter is given to some pertinent pedagogical conclusions following from the whole foregoing discussion.

While the treatment of some of the points is not so full as could be desired, as a whole the book is an excellent summary of the data now at hand bearing upon the subject, and will prove suggestive to the student, and informing and helpful to all.

HALBERT HAINS BRITAN.

Geschichtliche Wertmassstäbe in der Geschichtsphilosophie bei Historikern und im Volksbewusstsein. Von ARVID GROTEFELT. Leipzig, B. G. Teubner, 1905. — pp. vi, 211.

This little volume by a docent at Helsingfors will be found very useful as an introduction to the subject of which it treats. It is a sequel to the writer's earlier essay, *Die Wertschätzung in der Geschichte* (Leipzig, 1903), in which the problem of historical values is methodologically treated, and frequent references are made to the discussions in that volume; the present work is, however, sufficiently complete in itself. The purpose is to give a critical exposition of the principal conceptions of historical values which have been developed by philosophers, more or less consciously employed by historians, or taken for granted in the popular consciousness.

Considerably the largest part of the volume is devoted to the philosophers. The popular consciousness is appealed to only in refutation of utilitarianism and in confirmation of the theories of intuitional idealism. Only five historians are given prominent treatment (Mommsen, Ranke, Breysig, Buckle, and Carlyle), and these only in a single chapter. Not one Greek or Roman historian is so much as mentioned. The historians chosen for criticism are, however, considered to be representative of the main conflicting tendencies.

Something more than half the volume is devoted to an historical sketch of the philosophical notions involved. Chapters are devoted to the ancient and mediæval periods; to the Renaissance and Enlightenment; to Herder, Kant, and the post-Kantian idealists; to the utilitarians of the last century; and to recent intuitionalistic idealism. The treatment is in general exceedingly careful and conservative, without displaying much speculative insight. The account of Herder is particularly good, and that of Hegel is particularly inadequate. The author is strongly disposed in favor of intuitionalism by reason of what he conceives to be the witness of the popular conscience. In subsequent chapters, he discusses cosmopolitanism and nationalism as principles both of historiography and of statescraft, strongly favoring the superior right of the former to rank as ultimate. Equally strongly he favors the claims of individualism as over against the worship of culture as such; culture has value only as it is realized in individual personalities. In the development of personality itself, certain faculties are intuitively recognized as being of superior worth, though none can be permitted to suppress the others. While the general course of history has been a progress, we cannot assume that success in the struggle for existence always means superior capabilities for progress. Our ultimate convictions contain always an element of faith; and the author asserts his faith in the divine government of the world.

In an appendix devoted to contemporary practical problems, are discussed certain aspects of the democratic and nationalistic movements, and especially imperialism and the principle of international tolerance. The author speaks as a citizen of one of the minor European states; and his

feeling in the matter imparts to his very temperate language an unusual strength and eloquence.

THEODORE DE LAGUNA.

THE UNIVERSITY OF MICHIGAN.

The following books also have been received :

- The Persistent Problems of Philosophy: An Introduction to Metaphysics through the Study of Modern Systems.* BY MARY WHITON CALKINS. New York, The Macmillan Co., 1907. — pp. xxii, 575. \$2.50.
- The Theory of Good and Evil: A Treatise on Moral Philosophy.* BY HASTINGS RASHDALL. 2 vols. Oxford, The Clarendon Press, 1907. — pp. xx, 312; xv, 464. 14 s.
- Jesus Christ and the Civilization of To-day.* BY JOSEPH ALEXANDER LEIGHTON. New York, The Macmillan Co., 1907. — pp. x, 248.
- The Creed of a Layman.* BY FREDERIC HARRISON. New York, The Macmillan Co., 1907. — pp. vi, 395. \$1.75.
- Völkerpsychologie: Eine Untersuchung der Entwicklungsgesetze von Sprache, Mythos und Sitte.* VON WILHELM WUNDT. II. Band: Mythos und Religion, II. Teil. Leipzig, Wilhelm Engelmann, 1906. — pp. vii, 481. M. 11.
- Die philosophischen Grundlagen der Wissenschaften.* Vorlesungen gehalten an der Universität Berlin von B. WEINSTEIN. Leipzig und Berlin, B. G. Teubner, 1906. — pp. xiv, 543. M. 9.
- Über die Stellung der Gegenstandstheorie im System der Wissenschaften.* VON A. MEINONG. Leipzig, R. Voigtländer, 1907. — pp. viii, 159. M. 4.80.
- Die Metaphysik Avicennas, enthaltend die Metaphysik, Theologie, Kosmologie und Ethik.* Übersetzt und erläutert von M. HORTEN. Halle a S. und New York, Rudolf Haupt, 1907. — pp. x, 128.
- Kant, Schiller, Goethe.* Gesammelte Aufsätze von KARL VORLÄNDER. Leipzig, Verlag der Dürr'schen Buchhandlung, 1907. — pp. xiv, 294. M. 5.
- Heders und Kants Ästhetik.* VON GÜNTHER JACOBY. Leipzig, Verlag der Dürr'schen Buchhandlung, 1907. — pp. ix, 348. M. 5.40.
- Raum und Zeit in Geographie und Geologie.* VON FRIEDRICH RATZEL. Herausgegeben von PAUL BARTH. Leipzig, J. A. Barth, 1907. — pp. vii, 177. M. 3.60.
- Hauptprobleme der Religionsphilosophie der Gegenwart.* Drei Vorlesungen von RUDOLF EUCKEN. Berlin, Reuther und Reichard, 1907. — pp. 120. M. 1.50.
- Immanuel Kants kleinere Schriften zur Naturphilosophie.* 2. Auflage. Neu herausgegeben von OTTO BUEK. 2. Abteilung. Leipzig, Verlag der Dürr'schen Buchhandlung, 1907. — pp. xii, 454. M. 5.

- Baruch de Spinoza: I. Descartes' Prinzipien der Philosophie auf geometrische Weise begründet; II. Anhang, enthaltend metaphysische Gedanken.* Dritte Auflage. Neu übersetzt und herausgegeben von ARTUR BUCHENAU. Leipzig, Verlag der Dürr'schen Buchhandlung, 1907. — pp. viii, 190. M. 2.40.
- Baruch de Spinoza: Abhandlung über die Verbesserung des Verstandes; Abhandlung vom Staate.* Dritte Auflage. Übertragen und eingeleitet nebst Anmerkungen und Register von CARL GEBHARDT. Leipzig, Verlag der Dürr'schen Buchhandlung, 1907. — pp. xxxii, 214. M. 3.
- Inneres Wachstum.* Sieben Aufsätze von E. G. O. Stuttgart, Walter Seifert, N. D., pp. 90. M. 1.50.
- Philon.* Par JULES MARTIN. Paris, F. Alcan, 1907. — pp. 303. 5 fr.
- L'évolution créatrice.* Par HENRI BERGSON. Paris, F. Alcan, 1907. — pp. viii, 403. 7 fr. 50.
- Essai sur les éléments principaux de la représentation.* Par O. HAMELIN. Paris, F. Alcan, 1907. — pp. iv, 476. 7 fr. 50.
- L'expression du rythme mental dans la mélodie et dans la parole.* Par HENRI GOUJON. Paris, Henry Paulin et Cie., 1907. — pp. 315. 5 fr.
- Études sur le syllogisme, suivies de l'observation de Platner et d'une note sur le "Philébe."* Par J. LACHELIER. Paris, F. Alcan, 1907. — pp. 163. 2 fr. 50.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de Mét.* = *Revue de Métaphysique*; *Rev. Néo-Sc.* = *Revue Néo-Scolastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia e Scienze Affini*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abtl.: Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

LOGIC AND METAPHYSICS.

Der Wirklichkeitsgedanke. GEORG WERNICK. *V. f. W. Ph.*, XXX, 2, pp. 179-202; 3, 245-270.

(I) The main problem of this investigation is to determine the nature of the process whereby we ascribe reality to a mental content. This 'actualization process' is of two kinds: the objective, which directly refers the content to an external reality, and the subjective, which claims reality for the content merely as our own mental experience. They are distinct but coördinate psychical processes which have the same content. The distinction between subjective representation and objective reference is not given in the content as such, but is rather the result of a psychological development. Language tends to conceal the fact that the objective and subjective 'ascriptions of reality to a content' are really two different processes which refer to the same content. Names indicate not merely the content of an idea, but the object to which it refers. Reality is not originally a concept, but a thought, and, like all thoughts, can be reduced to ideational processes. This reduction can be accomplished either analytically or synthetically. The latter method, which is not very fruitful or reliable, seeks to reconstruct the historical development of thought either directly, by reflection upon our own psychical past, or indirectly, through the development of language. The analytic method, which seeks for the component ideas of thought through introspective analysis, is a more reliable method. Yet it is beset with serious difficulties, for different individuals have different ideas out of which the one thought is constructed, and even the same individual may have different ideas at different times. These difficulties can only be overcome by a large number of independent observations. (II) There are two types of answers which have been

given to this question concerning the nature of the process of ascribing reality to a content. The first, which may be called an absolute solution, regards the judgment of reality as a special quality which belongs to the content for which reality is claimed. The relative explanation regards the 'actualization process' as a special relation which the content in question bears to other contents. One absolute explanation claims that our 'judgments of reality' depend upon certain feelings of compulsion. This view is invalidated, however, by the fact that, as in the case of imaginative natures, subjective processes may equally be felt as compelling. To the modified form of this theory, which would make the criterion the remembrance of past feelings of compulsion, it may be replied that it is a mere schema, not true to the facts of experience. Moreover, it necessitates our regarding reality as a continuum of infinitely graded intensities. The process whereby we ascribe reality to a content may have degrees, but reality itself presents no such gradations. It either is or is not. A second absolute theory is called by Hillebrand the 'Ideo-genetic theory.' According to this view, there is a special psychical faculty, a fundamental un-analyzable act of consciousness, by means of which we ascribe or deny reality to a mental content. But this view is not true to experience, for it does not take account of the great variety of ways in which we ascribe reality to a content; *e. g.*, we may ascribe to a content the reality of the past, present, or future, — or of a here or a there. If the theory were to take full account of this variety, it would be driven to the absurdity of assuming as many original faculties as there are varieties in the 'actualization process.' A third absolute solution asserts that perception plays the essential part in the 'judgment of reality.' The origin of the thought of reality lies in perception. The perceived is the actual. In the original sensation, contents have a compelling power, an intense feeling aspect, and a permanence which they lack in reproduction. The 'actualization process' consists in the consciousness of that general quality by which a sensation is sharply distinguished from the mere representation, and which may be termed its 'reality coloring' (*Wirklichkeitsfarbe*). This 'reality coloring' is not something new added to the perception, but is an integral part of the perception itself, which can only be distinguished as a special moment of the whole perceptive process by subsequent reflection. That none of the absolute theories save one gives satisfaction, and that only in the explanation of perceptual contents, is indirect proof of the relative theories. If there is no psychical process which assigns reality to a content in its fullest isolation, then the process of thinking reality must consist in a relation of the content in question to other contents. In order to be held as real, a content must be brought into relation with such contents as are already held to be real. Reality can only be discovered through its relation to an already recognized reality. The 'process of ascribing reality' to a content is the ordering of a content in the total connected whole of Reality.

A. U. POPE.

The Time Quality. HENRY RUTGERS MARSHALL. *Mind*, No. 61, pp. 1-26.

The purpose of this article is to show that the time quality, like the algedonic quality (*cf.* the author's *Pain, Pleasure, and Aesthetics*), is a general, three-phased quality which exists in one phase or another in connection with each presentation. The point of departure is a consideration of the presentative complexity in itself, since this complexity is of special significance in the study of the time quality and its phases. The complexity of presentations of reflection corresponds to neururgic complexity, which is due primarily to the action of a variety of stimuli in successive moments upon the neururgic system. Man lives in a constantly changing environment; the position of sources of stimulation in relation to his body is continuously altered. Some sources of stimulation are always coming nearer to him, while others are as constantly receding from him. Consequently the neururgic patterns in man display various modes of complexity. They involve either a developing complexity (due to man's approach to stimuli or their approach to him), or a stationary complexity (due to a relatively fixed relation between the organism and its stimuli), or a simplifying complexity (due to separation between organism and its sources of stimulation). On the hypothesis of a thorough-going noetic and neururgic correspondence, one would expect to find in consciousness some general quality corresponding to this three-phased characteristic of neururgic disturbance which we picture to ourselves in terms of our spatial conceptions. Such a general three-phased quality of presentations is furnished in the time quality, which appears in the form of pastness, presentness, or futureness, and which is generally described in spatial terms. Pastness is usually thought of as involving something going from us, presentness as involving something with us, and futureness as involving something approaching us. This relation of the several phases of the time quality to presentative complexity the author emphasizes further by symbolizing in formulæ the nature of presentation in general, and also of those presentations in which the time relations become explicit. From this attempt he emerges with the conclusion that pastness is in indissoluble relation with the simplification of presentative complexity; that futureness is given in relation to the development of this complexity; and that presentness is attached to the relatively unchanging complexity. All of these phases of the time quality are to some extent present in every complex presentation, but one or the other receives the emphasis. The presentness is the norm, as it were, but, like the algedonic norm (*i. e.*, indifference), displays more or less of indefiniteness; on the one hand, it reaches into the futureness, and, on the other, into the pastness. Whether the suggested relation between the time phases and the presentational complexity be accepted or rejected, the author thinks that his discussion has shown that time-ness is a general quality of all presentations; that it is of a three-phased nature; that at least one of the phases must usually be predominant; that, finally, if any

one phase is predominant as a qualification of a state of consciousness, this fact necessarily excludes the prominence of the other two from the same state.

G. W. CUNNINGHAM.

L'idée de néant. H. BERGSON. Rev. Ph., XXXI, 11, pp. 449-466.

If it can be proved that the idea of nothingness is a pseudo-idea, the problems arising about it will be shown to be pseudo-problems. We have only to consider the idea of nothingness as the abolition of all things, in order to see the absurdity which it conceals. A vacuum is always in idea a plenum which is resolved by analysis into two positive elements: one, the idea, distinct or confused, of a substitution; the other, the feeling, experienced or imagined, of a desire or of a regret. It follows from this analysis that the idea of absolute nothingness, taken in the sense of the abolition of all things, is self-destructive, a pseudo-idea, a mere word. Paradoxical as it may appear, there is more contained in the idea of an object conceived as not existing than in the idea of the same object conceived as existing, for the idea of the former is necessarily the idea of the latter *plus* the representation of an exclusion of this object from reality. Negation may be said to be the removal of an affirmation or the half of an intellectual act of which the other half is left undetermined. The correlation of affirmation and negation, from the point of view of formal logic, is external and superficial. To deny consists always in presenting, in shortened form, a system of two affirmatives, one determined and bearing upon a certain possibility, the other undetermined and referring to a reality either unknown or indifferent which supplants this possibility. Negation, which exists to correct and prevent error in another, has a pedagogical or social character. Since it is raised about a pseudo-idea, the question how anything can exist is a pseudo-problem. The removal of illusory difficulties should precede the consideration of real problems.

FRANK B. CRANDALL.

Logique rationnelle et psychologisme. G. H. LUQUET. Rev. Ph., XXXI, 12, pp. 600-610.

This article is written in reply to one in *Rev. de Mét.*, May, 1906, by L. Couturat. The opponent of Couturat seems to be Ribot, the former recognizing one logic, the latter, two, which he opposes one to the other. Ribot makes the distinction that psychology reports phenomena and logic formulates rules; the one asks how we think ordinarily, and the other, how we think correctly. In order to understand them, the psychologist must maintain an impartial position between affective logic and rational logic. Couturat did not maintain this impartial attitude. Furthermore, he has confounded logic and logical relations, and psychology and psychologism. Psychologism has no concern for either logic or psychology; it belongs solely to the province of epistemology. In his criticism of psychologism, Couturat is fighting an imaginary foe.

FRANK B. CRANDALL.

Current Misconceptions of Realism. W. P. MONTAGUE. J. of Ph., Psy., and Sci. Meth., IV, 4, pp. 100-105.

It is charged, first, that realism is identical with psychophysical dualism or epiphenomenalism, the doctrine that consciousness is incapable of producing effects in the world of objects; secondly, that it is identical with metaphysical dualism, or the belief that real objects are things-in-themselves entirely transcending our knowledge and possessing none of the qualities which we attribute to them. The third misconception is the identification of realism with epistemological dualism, or the representative theory of knowledge, according to which we can have direct knowledge only of our ideas, which, as phenomena, are numerically distinct from the real objects which can merely be inferred to exist behind them. Although these three types of dualism have been held by individual realists, none of them is implied by realism as such; for its primary meaning is that things do not depend for their existence upon the fact that we know them, and that consequently they can continue in what is called existence during those intervals of time in which no subject is aware of them. In answer to these misconceptions, it may be argued: (1) That, while realism does deny the identity of being and perception, it does not deny the power of consciousness to affect indirectly the objects known; (2) that, while realism holds that objects exist independently of a knowing consciousness, it does not hold that these objects change their nature when they pass out of consciousness. To deny that the world is reducible to sensible objects in the relation of consciousness, does not imply that the world is not reducible to sensible objects. (3) While almost all realists in modern philosophy have held the theory of epistemological dualism, it is not essential to their belief as realists. Presentative or monistic realism is not self-contradictory, though it is more difficult to defend than the dualistic form of realism. The idealist should not then regard a refutation of dualism as equivalent to a refutation of realism.

MATTIE ALEXANDER MARTIN.

Some Inadequacies of Modern Theories of Judgment. W. H. SHELDON. J. of Ph., Psy., and Sci. Meth., IV, 4, pp. 94-100.

Some of our modern theories of judgment, well-established though they are, yet restate rather than solve the main problem. By judgment is here meant, not merely a logical process, nor merely a psychical event, nor a proposition of language, but something with all these aspects. Judgment is understood to be a psychical state or process, with a peculiar logical signification, capable of a certain symbolic statement, and at least partially expressible in the idioms of language. What may be called the orthodox view of judgment is that we entertain some psychical material, and use it, whether as it is or as transformed into a concept, to point to the real. It is this view which seems inadequate; for the nature of judgment is not com-

pletely understood until we know, not only what function it performs, and what structure it has, but how the structure reveals its function. The problem may be insoluble. No constant structure may be found in the psychical content of judgment; or, if found, it may have nothing to do with any common-sense idea of reality. But this still remains the main problem. The judgment as it exists and is used in human experience has two mutually conditioning sides, function and structure, and the problem is not adequately conceived till we study both sides as conditioning each other.

MATTIE ALEXANDER MARTIN.

ETHICS.

Definition and Analysis of the Consciousness of Value. WILBUR M. URBAN. Psych. Rev., XIV, 1, pp. 1-36; 2, pp. 92-121.

I. For the unreflective worth-consciousness, descriptions of value are tertiary qualities belonging to the object as much as the so-called primary and secondary qualities. Inspection shows these tertiary qualities to be acquired meanings of the object for a subject, predetermined by antecedent psychical processes. Worth-predicates may be defined as the selective, funded, affective-volitional meanings of objects, — selective in representing differentiation of aspects of objects acquired in processes of feeling and will, and funded in representing the accumulation of meaning of these processes. Analysis of worth-predicates reveals equivocal meanings which arise, like cognitive contradictions, through abstraction of the predicates from the processes in which meaning was acquired. Worth-sciences express this equivocation by distinctions such as subjective or objective, real or ideal, actual or imputed, intrinsic or instrumental. In all these cases, value judgments express functions of the relation of subject to object, but in various modifications of attitudes of the subject as determined by different dispositions and interests. Two important consequences follow: (1) The analysis underlying these distinctions furnishes a clue to the psychological investigation of the different attitudes; and (2) since worth is the affective-volitional meaning of the object for the subject in different attitudes, the way is open for classification of the fundamental worth-attitudes. Three fundamental attitudes may be distinguished: (1) Simple appreciation of the meaning of an object for the self; (2) the personal attitude, in which worth is determined by explicit reference of the object to the characterized self or alter; (3) the impersonal attitude, in which the subject is identified with an impersonal over-individual subject and the value is determined by explicit reference to the over-individual demand. The objects of valuation may be simple or founded objects, and may be classified correspondently with the subject-attitudes: (1) Objects of simple appreciation (either physical or psychical); (2) objects of personal worth founded in characterization of the person (the self or the alter); (3) objects

of common worth founded in processes of social participation. The definition of value as affective-volitional meaning must be interpreted to include the pre-judgmental attitude of immediate appreciation as well as the reflective judgments of ethics and economics which include the worth feeling as a partial determinant. The double term 'affective-volitional' suggests two questions: Is feeling or desire the fundamental characteristic of worth? Is worth co-extensive with feeling or desire? Ehrenfels makes desire fundamental and feeling a matter of dispositional presupposition. Meinong reverses the distinction. Ehrenfels admits the determination of desire by increase in pleasure, a view the difficulties of which led Meinong to make feeling fundamental. The latter view is preferable for the following reasons: The sense of worth implies a felt meaning, but not necessarily a desire or volition; where desire is part of the experience, its essence is describable in terms of feeling of lack. The moment of desire may be present in the form of 'desirability' merely. In reply to the second question, Meinong restricts value to 'judgment-feelings,' maintaining that the antecedent psychical condition in worth-consciousness is always a judgment. This is true in so far as it denies the aspect of worth to the mere presentation feeling; the feeling attitude which is fundamental to worth-consciousness has additional presuppositions. Are these distinguishing presuppositions exclusively judgmental, as Meinong maintains? This implies the presupposition of the existence of the object as essential to the worth-consciousness. But immediate consciousness of value may exist without explicit existential judgment. Presupposition of reality is always present, but not necessarily in the form of existential judgment. The primitive pre-judgmental presumption of reality, the assumption which recognizes the possibility of non-existence, the existential judgment, and, finally, the permanent assumptions owing their funded meaning to habitual judgments, may all function as the reality meanings which distinguish the feeling of value from mere feeling tone. What is the relation between the acts of cognition, which are the psychical presuppositions of valuation, and the conative tendencies forming its dispositional conditions? The answer must be in genetic terms. At the cognitive stage of primitive presumption, cognitive and conative moments are scarcely distinguishable. When the conative factor first suffers arrest by development of independent cognitive interest, subjective and objective controls are differentiated and the attitude of assumption emerges. With the existential judgment is involved the acknowledgment or disavowal of a control factor. Feeling of value, therefore, is the feeling aspect of a conative process. By conative process is meant the total process, including actual and dispositional moments, by which affective-volitional meaning is acquired. We must next inquire how these dispositions vary, qualitatively and quantitatively, at different stages of development with changes of presupposition and with inclusions of secondary judgments of relation, etc.

II. Feeling itself may become the object of both presentation and judg-

ment. The resulting description is 'appreciative' and fixes the place of a feeling attitude in a system of possible attitudes which are referred to the self as a center. The ultimate terms of appreciative description should furnish the fundamental modifications of worth-feeling. The conception that the innumerable nuances of feeling are reducible to difference in intensity and duration of the pleasantness-unpleasantness continuum has been criticised recently from the point of view of the psychology of value and of psycho-physical analysis. The feeling attitude may be qualitatively described in other terms than pleasantness-unpleasantness. Similarly, intensity is not sufficient to express quantitative differences in worth-feeling. The irreducible aspects of feeling must be expressed in terms of quality and degree. Qualitatively, every feeling attitude has two primary aspects, its direction and its reference. Its direction is positive or negative; its reference, transgredient or immanent. The former refers to the pleasantness-unpleasantness duality of quality; the latter has more specific reference to conation. Transgredient reference means subjective control leading on to other states; immanent, a sense of more objective control leading to repose in the same state. Transgredient reference is expressed in terms of tension, restlessness, contraction; immanent, in terms of repose, relaxation, expansion. The correlation of these terms of appreciative description with the three-dimensional theory of Wundt is obvious. Whether the terms equally characterize sensation feelings is not yet conclusively shown. In any case, valuation takes place only at the level of emotion, *i. e.*, of a feeling attitude which presupposes a cognitive act. Implied reference to reality exists even in objectless emotions, *e. g.*, as expressed in the impersonal judgment. The specific types of reference of feeling may be correlated with types of cognitive presupposition. Transgredient reference involves transition, on the cognitive side, of presumption into assumption and judgment; the immanent reference is the feeling attaching to judgment habit. Derived feeling attitudes, from the genetic viewpoint, involve progression in meaning or a value movement. Acquired feelings fall into two groups: (1) Acquired meanings of simple appreciation; and (2) of characterization and participation. The feeling of obligation, appreciatively described, is an acquired modification of the feeling of transgredient reference, of tension. Its differentiation lies in its cognitive presuppositions. It is a transitive mode in which an existential feeling is qualified by an assumption feeling. The æsthetic psychosis belongs to the class of simple appreciation and is described in terms of immanent reference. The typical cognitive presuppositions involve the minimizing of explicit judgment and the presence of either assumption stage. Secondary acquired meanings arise in judgments of personal worth, utilization and participation values. These feelings arise through the establishment of relational judgments between the object and the disposition presupposed. The quantitative aspect of worth meanings requires distinction from that of sensation-feelings. Positive worth feeling may co-exist with actual

unpleasantness and *vice versa*; degree of worth feeling may increase with decrease of hedonic intensity; value feeling may be without intensity. According to the dualistic theory of Brentano and Schwartz, the worth feeling is a modification of the will, accompanied by an irrelevant hedonic aspect, as feeling modification, termed hedonic 'redundancy.' Such an assumption of the separateness of will and feeling is not necessary, at least. From a genetic standpoint, the transgredient and immanent references of feeling may, when repeatedly actualized by cognitive acts, become differentiated, as selective meanings, from the aspect of hedonic intensity. This relation is analogous to that between the general concept and particular presentation.

M. W. SPRAGUE.

La morale conditionnelle. ADRIEN NAVILLE. Rev. Ph., XXXI, 12, pp. 561-575.

This article was called forth by the book, *La morale et la science des mœurs*, by Lévy-Brühl. The doctrine of conditional ethics cannot be established without the distinction being drawn between moral teleology, the system of obligatory ends, and ethics proper, the means for realizing the ideal conceived by the former. Ethics is the theory of the best means furnished by reality for the most complete realization possible of the ideal. It is ethics thus understood, and not moral teleology, that is conditional. Moral teleology is the theory of good ends and of their comparative values. There are but four possible ends in virtue of our human nature, namely, truth or knowledge for oneself, truth or knowledge for others, happiness for oneself, and happiness for others. Ethics involves a doctrine of the comparative value of these two ends, truth and happiness. The received codes of ethics differ regarding the duty of veracity. Teleology must give the decision in regard to the different values we place upon persons in respect to their right to pleasure and knowledge. Several theories seem possible: identity of rights, equality of rights, acquired inequalities, natural inequalities. Ethics proper rests upon teleology, on the one hand, and upon a knowledge of reality, on the other. All moral precepts employ an 'if,' when understood as general and not universal. Duty varies according to circumstances. The distinction between moral teleology and ethics proper dismisses the contention that the difference in moral ideas and practice in different times and in different places disproves the existence of human conscience and practical reason. Moral precepts must and will change with changing circumstances. Sociology will guard men from deception in this adaptation and will give stability to 'rational social art,' provided moral teleology is made the foundation.

FRANK B. CRANDALL.

Spinoza et ses contemporains (Suite et fin). L. BRUNSCHWIG. Rev. de Mét., XIV, 5, pp. 691-732.

The thinkers of the seventeenth century did not separate science and religion, but rather attempted to justify the latter by the former. Space

and time were treated in a new fashion, and both were considered infinite. Matter for Descartes was substance possessing all the properties of extension. Thus the laws of geometry gave rise to the universal laws of dynamics, and nature became real and infinite. But this scientific extrapolation necessitated a metaphysical extrapolation. God, too, was considered infinite, transcending all limitation, and, as such, incomprehensible to man. This conception is seen in the philosophy of Malebranche, but in Leibniz the harmony of science and religion is effected by means of the principle of reason, which resolves particular truth into the infinity of its determining conditions; each monad implies the universe. It was the work of Kant, however, to show that the very reason which justified the existence of rational science overthrew rational metaphysics. The objects of metaphysics can never be given in space and time; there can be no intellectual intuition. Pascal taught a transcendent Christianity; God is a refuge against the errors of reason, a consolation and hope. Thus the religious consciousness for Pascal is not subject to psychological investigation. Divine truths are put into the soul by God alone, who is personal, moving in space and time. Although originally there is an antagonism between God and man, yet through Him a relationship is established. The Bible is divine truth revealed to man. Spinoza, on the other hand, believed that science was to free us from an irrational belief in a transcendent and anthropomorphic God. His problem was: How is science, which substitutes the study of essences for the search for final causes, capable of ruling the moral life, and of showing the way to happiness? But, instead of passing from the mathematical to the moral, Spinoza denied the moral, and hence his system becomes merely a spatial realism. From this point of view, substance is only a substrate which supports sense qualities. But Spinoza rejects universals and regards the world as consisting of a number of irreducible and individual essences. These particular and affirmative essences are, however, only known through intuition, in which all idea of the particular experience is eliminated. Moreover, to have this third kind of knowledge, we must pass from sensible to intelligible space. Thus Spinoza substitutes for the opposition between the universal and the individual that between the individual, which is an abstraction, and the universe, which is a totality. God becomes unifying thought, the reality of the universe, both the *natura naturans*, and the *natura naturata*.

R. B. WAUGH.

NOTES.

Dr. Edward Caird has been compelled by ill health to resign the Mastership of Balliol, a position which he has held since 1893, when he succeeded Benjamin Jowett.

Professor Felix Adler, of Columbia University, has been appointed Theodore Roosevelt Professor at the University of Berlin for the year 1908-9.

We have received the first number of a new Dutch philosophical quarterly entitled *Tijdschrift voor Wijsbegeerte*.

Dr. Theodore de Laguna, of the University of Michigan, has been appointed Associate Professor of Philosophy at Bryn Mawr, to succeed the late Professor David Irons.

W. J. Newlin, Associate Professor of Mathematics and Psychology at Amherst, has been appointed Associate Professor of Philosophy to succeed the late Charles E. Garman.

Dr. Henry W. Wright, of Cornell University, has been appointed Professor of Philosophy at Lake Forest College.

Dr. Edward H. Hollands, of Princeton University, has been appointed Instructor in Philosophy at Cornell University.

Mr. Clarence E. Ferree, of Cornell University, has been appointed Lecturer in Psychology at Bryn Mawr College.

For the second time in four years, the Faculty of Wellesley College has awarded to a student in psychology and philosophy the Alice Freeman Palmer Fellowship. It will be held next year by Helen D. Cook (A. B., Wellesley, 1905; M. A., 1907). Miss Cook intends to continue her work in Germany next year.

We give below a list of the articles, etc., in the current philosophical periodicals:

MIND, No. 62: *F. H. Bradley*, On Truth and Copying; *C. Spearman*, An 'Economic' Theory of Spatial Perception; *F. C. Doan*, The Phenomenal Sanctions of the Moral Life; *A. M. Bodkin*, The Subconscious Factors of Mental Process Considered in Relation to Thought, I; *G. E. Moore*, Mr. Joachim's 'Nature of Truth'; *G. F. Stout*, Mr. Prichard's Criticism of Psychology; *F. C. S. Schiller*, Psychology and Knowledge; *R. B. Perry*, Professor Taylor's Treatment of Space and Time; Critical Notices; New Books; Philosophical Periodicals; Notes and News.

THE HIBBERT JOURNAL, V, 3: *R. J. Campbell*, The Aim of the New Theology Movement; *Latinus*, The Aim of the New Catholic Movement; *Sir Oliver Lodge*, A Reformed Church as an Engine of Progress; *Frank Ilsley Paradise*, The Living Church; *E. A. Sonnenschein*, The New Stoicism; Between Death and Life; *Alfred E. Garvie*, Personality in God,

Christ, Man ; *R. J. Ryle*, The Neurotic Theory of the Miracles of Healing ; *C. T. Ovenden*, The Forgiveness of Sin ; *Edwin A. Rumball*, The Sinlessness of Jesus ; *Frederic Palmer*, The Christ of the Fourth Gospel ; *B. A. Millard*, The Theology of 'The Average Man' ; *George Galloway*, What do Religious Owe to Kant? Discussions ; Reviews ; Bibliography of Recent Literature.

INTERNATIONAL JOURNAL OF ETHICS, XVII, 3 : *A. C. Pigou*, The Ethics of the Gospels ; *Carl Heath*, Reform and the Death Penalty ; *William M. Salter*, The Russian Revolution ; *W. R. Sorley*, Ethical Aspects of Economics, II ; *F. Melian Stawell*, Women and Democracy ; *Edward O. Sisson*, The State Absorbing the Function of the Church ; *Farnham P. Griffiths*, Student Self-Government in the University of California ; *Amy E. Tanner*, The Elevation of the College Woman's Ideal ; Book Reviews.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XVIII, 2 : *C. Spearman*, Demonstration of Formulæ for True Measurement of Correlation ; *Max Meyer*, The Significance of Wave-form for our Comprehension of Audition ; *Alvord and Searle*, A Study in the Comparison of Time Intervals ; *Severance and Washburn*, The Loss of Associative Power in Words after Long Fixation ; *F. M. Urban*, On Systematic Errors in Time Estimation ; *Lucinda Pearl Boggs*, Studies in Absolute Pitch ; *John A. Bergström*, Effect of Changes in the Time Variables in Memorizing, together with some Discussion of the Technique of Memory Experimentation ; *Felix Arnold*, The Initial Tendency in Ideal Revival ; *Frank Angell*, On Judgment of 'Like' ; Psychological Literature.

THE PSYCHOLOGICAL REVIEW, XIV, 3 : *H. Carr*, The Pendular Whiplash Illusion of Motion ; *J. Mark Baldwin*, Thought and Language ; *C. L. Herrick*, The Nature of the Soul and the Possibility of a Psycho-Mechanic.

THE PSYCHOLOGICAL BULLETIN, IV, 4 : *David Coyle*, Upright Vision and the Inverted Image ; Psychological Literature—Experimental ; Discussion ; Books Received ; Notes and News.

IV, 5 : *George M. Stratton*, Modified Causation for Psychology ; Psychological Literature ; Discussion and Reports ; Books Received ; Notes and News.

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS, IV, 8 : *John Dewey*, The Control of Ideas by Facts, I ; *F. C. French*, A Factor in the Evolution of Morals ; *Charles Hughes Johnson*, Feeling Analysis and Experimentation ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 9 : *Evander Bradley McGilvary*, The Stream of Consciousness ; Discussion ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 10: *John Dewey*, The Control of Ideas by Facts, II; *B. H. Bode*, Realism and Objectivity; *James H. Tufts*, Garman as a Teacher; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IV, 11: *John E. Boodin*, The Ultimate Attributes of Reality; *William James* and *John E. Russell*, Controversy about Truth; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

THE MONIST, XVII, 2: *Henry White*, Christian Science: Medievalism Redivivus; *E. T. Brewster*, The Evolution of Christian Science; *Editor*, Christian Science and the Reason of its Strength; *Hugo de Vries*, New Principles in Agricultural Plant-Breeding; *S. Gore*, A Scientific View of Human Choice; *Editor*, Friedrich Nietzsche; *A. H. Gunlogsen*, A Few Historical Data of the Modern Science of Language; Criticisms and Discussions; Book Reviews and Notes.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, XIII, 2: *Karl Joël*, Die Auffassung der kynischen Sokratik, II; *H. Gomperz*, Zur Syllogistik des Aristoteles; *Wilhelm Capelle*, Zur antiken Theodicee; *P. Hadelin Hoffmann*, La synthèse doctrinale de Roger Bacon; Jahresbericht.

XIII, 3: *Karl Weidel*, Schopenhauers Religionsphilosophie; *Anna Tumarkin*, Zu Spinozas Attributenlehren; *Otto Baensch*, Die Entwicklung des Seelenbegriffs bei Spinoza als Grundlage für das Verständnis seiner Lehre vom Parallelismus der Attribute, I; *Arthur Erich Haas*, Antike Lichttheorien; *Ernst Appel*, Leone Medigos Lehre vom Weltall und ihr Verhältnis zu griechischen und zeitgenössischen Anschauungen, I; Jahresbericht.

ZEITSCHRIFT FÜR PSYCHOLOGIE, XLV, 1 u. 2: *H. Heymans* und *E. Wiersma*, Beiträge zur speziellen Psychologie auf Grund einer Massenuntersuchung; *Walther Jacobs*, Über das Lernen mit äusserer Lokalisation; *Josef Breuer*, Bemerkungen zu Dr. H. Abels Abhandlung über Nachempfindungen im Gebiete des kinästhetischen und statischen Sinnes; *Hans Abels*, Ist der "Nachschwindel" im Endorgan oder nervös bedingt? Besprechung; Literaturbericht.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOZIOLOGIE, XXXI, 1: *Richard M. Meyer*, Der Ursprung des Kausalitätsbegriffes; *Kurt Geissler*, Das Willensproblem; *Georg Wernick*, Der Wirklichkeitsgedanke; *Paul Barth*, Die Geschichte der Erziehung in soziologischer Beleuchtung, VI; Besprechungen über Schriften; Zeitschriften; Bibliographie.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, XV, 2; *E. LeRoy*, Comment se pose le problème de Dieu; *G. Remacle*, Note sur le problème du mal; *M. Winter*, Sur l'introduction logique à la théorie des fonctions; *J. Grosjean*, Arthur Hannequin et son œuvre; *F. Challaye*, Le syndicalisme révolutionnaire (fin); Supplément.

REVUE PHILOSOPHIQUE, XXXII, 4: *G. Palante*, Anarchisme et individualisme: Essai de psychologie sociale; *J. Sagaret*, De l'esprit magique

a l'esprit scientifique (2e article); *A. Bauer*, La transformation des idées et le public; *P. Fauconnet*, The Origin and Development of Moral Ideas, d'après Westermarck; Analyses et comptes rendus; Revue des périodiques étrangers.

XXXII, 5: *B. Bourdon*, La perception du temps; *G. L. Duprat*, La spatialité des faits psychiques; *Th. Ribot*, Sur une forme d'illusion affective; *Rogues de Fursac*, Notes de psychologie religieuse: Les conversions; Analyses et comptes rendus; Revue des périodiques étrangers; Livres nouveaux.

REVUE DE PHILOSOPHIE, VII, 4: *William James*, Les énergies humaines; *A. de Gomer*, Autonomie de l'activité volontaire (1er article); *A. Farges*, Le doute méthodique peut-il être universel? *C. Lucas de Pesloüan*, Sur les fondements de l'arithmétique (1er article); Analyses et comptes rendus; Périodiques; L'enseignement philosophique.

VII, 5: *William James*, Le courant de la conscience; *Ch. Boucaud*, L'histoire du droit et la philosophie de l'action; *A. de Gomer*, Autonomie de l'activité volontaire (2e article); *C. Lucas de Pesloüan*, Sur les fondements de l'arithmétique (2e article); Analyses et comptes rendus; Périodiques; L'enseignement philosophique.

JOURNAL DE PSYCHOLOGIE NORMALE ET PATHOLOGIQUE, IV, 3: *Edme Tassy*, De quelques propriétés du fait mental: *Laignel-Lavastine*, Le plexus solaire et ses fonctions; Société de Psychologie; Bibliographie.

REVUE DES SCIENCES PHILOSOPHIQUES ET THÉOLOGIQUES, I, 1: *P. M. De Munynck*, Les bases psychologiques du mécanicisme; *B. Allo*, 'Germe' et 'ferment'; *L. Gry*, L'idée de Dieu dans les Apocryphes de l'Ancien Testament; *A. Humbert*, Le problème des sources théologiques au XVIe siècle; *M. Gillet*, La définition de l'habitude d'après Aristote; *M. Jacquin*, Question de mots: Histoire des dogmes, histoire des doctrines, théologie positive; Bulletins; Chronique; Recension des Revues.

RIVISTA FILOSOFICA, X, 1: *P. Martinetti*, La funzione religiosa della filosofia; *B. Varisco*, Quid est veritas? *A. Piazzi*, La ginnastica dello spirito nella pedagogia del secolo XIX; *A. Pagano*, Filosofia e filosofia del diritto; Rassegna bibliografica; Sommari delle riviste straniere; Libri ricevuti.

RIVISTA DI FILOSOFIA E SCIENZE AFFINI, XVI, 3-4: *R. Ardigò*, Il quadruplici problema della gnostica; *E. Zoccoli*, La concezione formale della sociologia secondo Giorgio Simmel; *S. Marchesini*, Sui confini della tollerabilità: II. Il problema dell'intolleranza; *C. Ranzoli*, Che cos'è l'agnosticismo (fine); *G. Martinotti*, Su la soglia della coscienza; *G. Natali*, L'insegnamento dell'italiano e della storia dell'arte nelle scuole medie; Questioni varie; Nota critica; Autorelazioni, Analisi e cenni.

THE PHILOSOPHICAL REVIEW.

PLATO AND PROTAGORAS.

THE present controversy between the representatives of the loose body of opinion, variously known as 'pragmatism,' 'humanism,' or 'radical empiricism,' and the exponents of the belief in a science of reality, recalls the earlier combat between the Sophists and Plato. In a sense the grounds of disagreement are the same. The modern like the ancient Sophist has risen in revolt against the tyranny of an established creed, and in defence of the rights of the individual; and he displays a decided aversion from investigations into the ultimate nature of things — which he assumes to be incapable of solution — accompanied by a strong faith in the essential soundness of the common moral consciousness. His opponent, on the other hand, like Plato, insists upon the necessity of a reasoned body of truth, to which the individual must yield assent; and he maintains that no solid foundation can be found either for knowledge or morality unless it is possible to comprehend in principle the ultimate nature of things. An antagonism so vital and fundamental obviously admits of no compromise; but perhaps it is not beyond reasonable hope that a better understanding of the strength of each other's position will at least result in the elimination of irrelevant issues and prepare the way for a solution of the problem, if such a solution is possible at all. Partly as a small contribution in this direction, I propose to recall the attitude of Plato, the representative of what in a large sense may be called a rational idealism, towards Protagoras, whom a recent exponent of 'pragmatism,' or perhaps I

should say of 'humanism,' is willing to regard as his philosophical progenitor.¹

The development of Greek mythology, as we know, consisted in a regress from nature to man, and from multiplicity to unity; but, as this regress did not fairly lift the mind of Greece above the pictorial stage of thought, the time inevitably came when an attempt was made to grasp the world and human life in a more adequate way. Thus arose the speculations of the early philosophers and the subsequent doctrines of the Sophists and the Socratic schools. And it was only natural that the philosophy of Greece should repeat, at the stage of reflective thought, the process by which the religion of Greece had advanced from object to subject, from nature to man. In its first phase philosophy assumed that the real was the external, and therefore it sought to interpret all reality in terms of nature; and it was only when this first vein of reflection had been exhausted, that the Greek mind turned its attention to the problem of human life. It was felt, rather than clearly seen, that no principle drawn from the sensible world could adequately account for the peculiar nature of man; and thus began a new phase of speculation. Nature was no longer regarded as self-explanatory; the key to the riddle of existence was therefore sought in man. The first step in the new direction was taken by the Sophists, who expressed the revolt against a mode of thought which turned away from human life or sought to assimilate it to the unconscious movements of external nature. This 'humanistic' attitude, as we may fairly call it, arose in the reaction from a philosophy which attempted to explain all things solely from the point of view of the object. The Sophists adopted very much the same attitude towards the naturalism of their day as the early philosophers towards the current mythology. To all speculations on the ultimate nature of things they were indifferent or openly hostile; for either, like Protagoras, they refused to admit that such enquiries had any real bearing on human life, or, with Gorgias, they explicitly denied

¹F. C. S. Schiller, *Humanism*, p. xvii: "I would not disclaim affinities with the great saying of Protagoras, that *Man is the Measure of all things.*" Whether, as Mr. Schiller declares, Plato has given a 'travesty' of the doctrine will, as I hope, appear in the sequel.

that a knowledge of the objective world was possible for man.

Socrates so far agreed with the Sophists, that he doubted or disbelieved in the possibility of comprehending the universe as a whole ; but, in contrast to them, he denied that the prevalent moral beliefs of men were the only, or the sufficient, basis of morality. The reason, or one of the reasons, relied upon by them in defence of their view that morality is a matter of expediency, viz., that the moral beliefs of different nations and individuals are mutually contradictory, was employed by him to inculcate the duty of seeking for impregnable principles of conduct. Socrates, as we may say, urged the necessity of a metaphysic of morality, while denying the necessity of a metaphysic of reality. His problem therefore was, to determine, on the basis of reason, wherein the highest life of man consists. This problem, as he claimed, could only be solved by a clear comprehension of the end towards which all effort should be directed, and a definite knowledge of the means by which it may be realized. To be really virtuous, as it seemed to him, the agent must have a clear consciousness of what he ought to aim at, and why certain acts are good ; and until he has attained to this self-knowledge, his conduct may conform to what is customary, but it can have no moral value. The artist in life is not made so by accident, and if he were, he would deserve no credit for what lay beyond his range of vision. On the other hand, it is Socrates's belief that a clear consciousness of the true end of life will inevitably be followed by the performance of the acts by which it may be realized. Hence " virtue is knowledge," both in the sense that without knowledge of the end to be realized there is no morality, and that, as man is so constituted that he cannot do otherwise than follow what he knows to be best, knowledge of that end must result in virtuous acts. Now, the end of life, as that in which a man must find his true good, obviously is ' happiness,' or ' well-being' (*εὐδαιμονία*). The ambiguity of the term *εὐδαιμονία*, however, inevitably led to a divergence of view in the followers of Socrates, and even in the mind of Plato, his greatest pupil. This divergence comes to clear expression in the *Protagoras*, which has justly been regarded as marking the transition from the dialogues

which are occupied with the exposition and illustration of the Socratic view of morality to those in which Plato works out a higher conception of his own. What light does this dialogue throw upon his attitude towards Protagoras?

It will hardly be said that Plato has here made a 'travesty' of the doctrine of Protagoras: if there is any 'travesty' at all, it is rather of the Socratic thesis, that "virtue is knowledge." But, in truth, no valuable result is to be derived from the study of a great writer, which does not assume absolute good faith on his part. Even in the case of the *Theaetetus*, as I believe, Plato is not only speculatively, but even historically, just; and in the *Protagoras* he is undoubtedly not only just, but even generous, in his picture of the great Sophist.

There are two main points in the dialogue, which should be clearly distinguished: firstly, the contrast of method in Protagoras and Socrates; and, secondly, the attitude of each towards current morality. As to the former, the method of Protagoras is rhetorical, and therefore does not seek to go behind average public opinion; while that of Socrates is dialectical, and aims at a systematic connection of moral ideas. It is obvious that this fundamental contrast of method is quite compatible with the fact that, so far as results are concerned, Protagoras comes nearer the truth than Socrates. If truth, as our modern pragmatists tell us, consists in the ideas that work out best, there can be little doubt that the assumption running through the whole of Protagoras's statements, that the public conscience is on the whole sound, is more defensible than the doctrine of Socrates that no moral judgment has any ethical value which has not been explicitly brought into relation with the one end of life and seen to be subordinate to it. A different judgment must be passed upon the value of Protagoras's ethical doctrine, when we look at it as simply the formulation of the current ideas of his time. The Sophist, as Protagoras claims, merely states clearly the moral ideas which are present in the minds of all; ideas which owe their origin partly to a divinely implanted instinct, and partly to the influence of men upon each other in society. Thus virtue is not a special art, presupposing an original endowment and a

particular training, but a common possession, which every one can teach, and does teach, to his neighbor. The Sophist makes no pretensions to an exceptional knowledge of morality ; all that he professes to do is to state in a better form what all reasonable men believe ; and this power, in fact, is his only claim to recognition. He is a better teacher of morality than others, but by no means its only teacher. Now, there can be no doubt that Protagoras here insists upon an aspect of truth which Socrates, with his rigid doctrine, ignores : the truth, that morality is not the product of pure reflection, but exists prior to reflection and as the result of the process by which the individual, as a member of a civilized community, is unconsciously moralized. But, while this is true, the *method* of Protagoras, as Plato thinks, has this fundamental defect : that it virtually assumes the ultimate validity of current morality, just because it makes no attempt to trace it back to its principle ; and in doing so, it bars the way to a higher form of morality. The force of rhetoric lies in its appeal to the average mind, and the rhetorician, as Plato indicates by the manner in which Protagoras falls before Socrates after two or three blows, is no match for the dialectician, just because he has always assumed the absoluteness of current moral ideas, and is therefore perplexed and confused when he is forced to give a reason for the faith that is in him.

It may of course be said that Protagoras, who could confidently count on the response of the popular conscience, was on a higher level than Socrates, with his one-sided 'intellectualism.' But this defence overlooks the fact, that truth is something more than mere conformity with the nature of things, including as it does a comprehension by the individual of the grounds of that conformity. In assuming the attitude of the spokesman of customary ideas, Protagoras was either committing himself to a bundle of contradictions, or tacitly assuming a principle contradictory of his rhetorical method. For current moral ideas, even of the same people in the same age, and much more of different peoples in different ages, are not perfectly homogeneous, but are made up of incompatible elements. By his method Protagoras was led to pass lightly over these contradictions, and to appeal to an

accepted body of ethical opinion, representing on the whole the better mind of Greece. And no doubt there was a certain justification for this light-hearted method of ignoring differences; but the justification must ultimately lie in the principle that ethical truth, like other truth, is the expression of a rational and therefore a self-consistent body of doctrine. In other words, the appeal to the public conscience is either an appeal to the reason latent in all men, or it is a mere appeal to popular prejudice. Now, it is surely obvious, that, if morality is to be the expression of the growing moral consciousness of the race, the first step in the transition from the assumptions and inconsistencies of custom must consist in bringing current moral ideas to the test of some universal principle. Upon this presupposition the method of Socrates was based; and, therefore, whatever its immediate success might be, as a method it was infinitely superior to that of Protagoras.

What has just been said as to the contrasted methods of Protagoras and Socrates partly anticipates the second point, viz., the attitude of each towards customary morality. The problem of Protagoras was not to discover the rational basis of the particular ethical judgments men make, much less to search for a single principle to which they might all be referred, but merely to frame a good working conception which should serve as a guide for the ordinary well-disposed citizen. Socrates, on the other hand, refused to be satisfied with anything short of a science of morals, in which each virtue was clearly seen to follow from the idea of a single supreme end. In the *Protagoras*, Plato represents Socrates as seeking to defend this view on the basis of what has been called 'psychological hedonism,' *i. e.*, the doctrine that nothing ever is or can be desired but pleasure and the absence of pain. If this is admitted, the thesis, that virtue is knowledge, as it is argued, may be successfully defended. For, in the first place, all acts which result in greater pleasure than pain will be good; and, in the second place, since nothing but good ever is desired, he who knows the felicitic consequences of any proposed course of conduct will inevitably do those acts which result in a maximum of pleasure, *i. e.*, he will act virtuously. Thus, as Socrates argues,

a science of morality, based on a calculus of pleasures and pains, may be constructed, and, as a consequence, men may be taught the art of good citizenship, just as they learn the arts of architecture or painting or sculpture.

If we ask which of these views is Plato's own, the answer must be both, and yet neither; for, though in the *Protagoras* no definite conclusion is reached, the clear opposition of the two antagonistic views, represented by Protagoras and Socrates respectively, is a proof that Plato entered sympathetically into each, while satisfied with neither. What he found suggested in the view of Protagoras was, that the individual is undoubtedly moralized by society prior to any construction on his part of a science of conduct; while in the demand of Socrates for such a science he recognized the legitimate claim of the reason to accept only that which is rational. On the other hand, the pupil of Socrates could never be induced to acquiesce in the view of Protagoras, that morality has no other justification than custom and convention; nor could he ultimately be satisfied with the precarious and shifting basis offered by hedonism. The dialogue must therefore be regarded as exhibiting the strength and weakness of both views, and as presenting for subsequent solution the problem of reconciling the ordinary moral judgments of men with the claim of philosophy to accept nothing that is not rational. We have now to ask whether Plato has been less just to Protagoras in the *Theaetetus* than in the dialogue just considered. Here, if anywhere, must be found the evidence for the charge of misapprehension or distortion which has been made by various writers ever since Grote's famous defence of the Sophists.

The first question is, whether Plato has shown indifference to historical accuracy in his characterization of Protagoras. After the convincing essay of Natorp,¹ it seems impossible that anyone can regard this charge as capable of being substantiated. In the dialogue it is assumed that the treatise of Protagoras, "On Truth," was accessible, and could be consulted in verification of any statement that was made. When, therefore, Socrates expressly refers to some saying as having been made by Protagoras, it may fairly

¹ *Forschungen zur Geschichte des Erkenntnisproblems im Alterthum*, pp. 1-62.

be claimed that what is so referred to is the veritable doctrine of the distinguished Sophist. Applying this test, there can be no doubt as to the actual doctrine of Protagoras. Man, as he held, is the measure of all things, of those things that are, that they are; of those things that are not, that they are not. What is meant by this is, that as each thing appears to me, it is to me; as it appears to you, it is to you. Sometimes, when the same wind is blowing, one of us is cold, the other not; and one is slightly cold, the other exceedingly. Now, it cannot be that the wind in itself is cold or not cold; but to one who feels it cold, it is cold, to one who does not feel it so, it is not so. Thus the same wind appears cold to one, not cold to another.¹

In Plato's estimation, then, the doctrine of Protagoras was that the individual man is the measure of what is and is not. This, indeed, was the universal view taken of the doctrine of Protagoras by ancient writers. Nor is there any discrepancy between the representation of Protagoras already considered and that now given; on the contrary, nothing is more natural than that one who assumed that what every one believes to be good is to be taken as good, should see nothing absurd in the doctrine that each man must be guided by what seems to him true, and especially by what is directly presented to him by his senses. There is no improbability in the supposition, that Protagoras was unconscious of any contradiction in maintaining at once the relativity of each man's apprehension and the identity of an object with itself apart from such apprehension; a want of clearness of thought which is not surprising, when we consider that the same confusion reappears in the writings of our 'pragmatic' friends. There is, therefore, no reason to doubt the correctness of Plato's view, that Protagoras regarded the individual man as the measure of truth for himself.

The doctrine of Protagoras is first connected by Plato with the definition of knowledge as sensible perception, put in the mouth of Theaetetus, and then with the Heraclitic doctrine that "all things are in flux." A careful study of the dialogue, however, makes it clear that this connection is not said by Plato to have been

Theaetetus, VIII, 152 A-B; cf. *Crat.*, 385 E, C; *Theaet.*, 160 C, 166 D.

stated by Protagoras himself, in his treatise on Truth. No doubt Protagoras is declared to have "said the same thing as Theaetetus in a different way"; but, on the other hand, "the opinion of the great sage Protagoras, that man is the measure of all things," is expressly contrasted with "the view of Theaetetus, that, given certain premises, perception is knowledge."¹ Moreover, Plato indicates that Protagoras did not, at least with any definiteness, connect his own view with the Heraclitic doctrine. He spoke "in a parable," as Plato puts it, "to the common herd, like you and me, and only told the truth, 'his Truth,' in secret to his disciples." As Plato also speaks of the 'mysteries' of certain 'brethren,' and of "the hidden 'truth' of a famous man or rather famous school," it is evident that there was nothing in the work of Protagoras about the doctrine of 'flux'; though no doubt his disciples, possibly at some suggestion from him, may have sought to defend their sensationalist theory by reference to that doctrine.² But, while Plato makes it quite clear that the three theses were not brought into relation with one another by Protagoras himself, he also maintains that there is a close inner connection between them; so close, indeed, that they may be regarded as integral elements in a single comprehensive theory. His interest in this theory was not polemical but constructive, as may be seen from a short summary of the development of his own thought in the interval between the composition of the *Protagoras* and the *Theaetetus*.

The *Protagoras*, as we have seen, virtually calls in question the abrupt opposition of ignorance and knowledge which was characteristic of Socrates, suggesting that the real opposition, at least in the case of moral judgments, is between opinion (*δόξα*) and knowledge (*ἐπιστήμη*). The view thus suggested is explicitly stated in the *Meno* and *Gorgias*. The ordinary moral judgments (*δόξα*) of men are not false, but merely confused; they seem to be particular, while in reality what gives them their force is the universal principle which they tacitly presuppose. In the *Meno* the correct, yet unconscious, application of the universal principle (*ἰδέα, εἶδος*) is explained by the half-mythical doctrine of 'reminis-

¹ 152 A, 160 D.

² 152 C, 156 A, 155 E; cf. 168 B, 152 D, 166 C.

cence' (*ἀνάμνησις*), the substance of which is, that the advance from opinion to knowledge consists in bringing to clear and explicit expression the universal principle already obscurely present in the particular judgments of the ordinary consciousness. Thus, when a man who pays his debts is pronounced just, it is tacitly implied that he was governed by the universal principle of justice, though he did not think of it in that way, and is unable to define justice when asked to do so. Here, therefore, it is suggested that human life is always guided by universal principles or 'ideas.' If it is asked why, on that supposition, a science of conduct is necessary, Plato answers that the explicit recognition of moral principles is the only safeguard against vacillating and inconsistent conduct, and the sole guarantee of a life organized on a definite plan. In the *Gorgias* it is added that, in their ordinary moral judgments, men are not only guided by universal principles, but they always act under the idea of a single supreme principle, — the 'idea of the Good.' No doubt they are apt to suppose that they are seeking some particular object, — such as health, wealth, or honor, — but what they *will*, as distinguished from what they *wish*, is always 'the Good,' all other things being really desired as a means to the realization of this supreme end. The confusion between the real and the apparent object of desire explains the prejudicial influence of a false rhetoric; for the rhetorician may appeal to what men *wish*, overlooking what they *will*, and may therefore encourage false and selfish views of life. Hence the importance of a science of ethics, which shall bring to light the ultimate principle of action, and enable men to organize the whole of their life by reference to it.

As the result of the discussions embodied in these three dialogues, Plato has shown: (1) that the ordinary moral judgments of men derive their force from the universal 'ideas' or principles underlying them; (2) that all moral judgments without exception presuppose the 'idea of the Good,' which is the real object of every desire. In the *Symposium*, the *Phaedo*, and the *Republic*, he takes a bolder flight and applies his theory of ideas to the universe as a whole. Just as 'the Good' is the supreme principle of human action, so, as we must suppose, the various principles by

which the different spheres of reality other than that of human conduct are characterized, must also fall under the same principle. Thus we reach the conception of a principle of principles. At the same time, Plato is not prepared to admit that this principle is completely realized in the particular; on the contrary, he regards it as one of the defects of 'opinion' that it confuses the actual with the ideal, attributing to the former what is true only of the latter; as when it says, "This flower is beautiful," "That act is just," not observing that no object of our experience is perfectly 'beautiful' or perfectly 'just.' Thus, as it would seem, there is a contrast between the actual, as manifold, changing, and transient, and the ideal, as one, unchanging, and eternal, — a contrast which clings to Plato's doctrine to the end, and prevents him from admitting that "the actual is rational and the rational actual." But, while he shrinks from this final identification, Plato insists that there must be a regular ascent from proximate to higher principles, and that nothing short of the reference of these to a single self-sufficient principle can give final satisfaction. Applying this method in the *Republic*, he seeks to show that the principles of the special sciences, while they are adequate as the standard of the particular phase of reality to which they apply, are not self-sufficient, and therefore presuppose the supreme principle of the Good, or God, which he now conceives as the source of all truth and reality.

So far Plato has been mainly occupied in the endeavor to prove that special phases of the actual presuppose certain characteristic principles, while these must all be referred to a single supreme principle; but, having reached this point, he feels the necessity of showing that these principles are not mere abstractions, but actually explain the particulars to which they are applied. This is the problem to which he devotes special attention in the *Theaetetus*, the *Sophist*, and the *Parmenides*. The hurried account just given of the development of his thought may help us to interpret with some degree of confidence the contents of the first of these dialogues, that with which we are more immediately concerned.

The problem in which Plato was mainly interested is indicated

by what he tells us himself: dissatisfied at once with the Eleatic doctrine, which denied all motion and change, and with the counter-theory of the Heracliteans that nothing is permanent and unchanging, he sought to find a way of escape from the opposite inadequacies of both.¹ The first half of this problem is discussed in the *Theaetetus*, the second in the *Sophist* and *Parmenides*. In the special theory of Protagoras, apart from its kinship to the followers of Heraclitus, especially Cratylus, Plato is not interested, mainly because its author had no proper comprehension of the logical consequences of his own doctrine. What he therefore does is to bring out the ambiguity in the saying of Protagoras, refusing to allow him to escape under a cloud of rhetoric, effective and useful enough in practical life, but speculatively disastrous, because fitted to confirm the natural tendency of the ordinary man to take his ideas on trust.

Protagoras, as it is implied, did not limit his formula to the sensation of the moment, but said without reservation that, when any judgment is made by this or that individual, it 'appears' to him true, and indeed 'is' the only truth of which he is capable. For Plato, after pointing out the contradiction involved in the general proposition, that every opinion of every individual is true, goes on to say, that "there is more difficulty in proving that states of feeling, which are present to a man (*τὶ παρὸν ἐκάστω πάθος*), and out of which arise sensations (*αἱ αἰσθήσεις*) and opinions in accordance with them (*αἱ κατὰ ταύτας δόξαι*), are also untrue."² What Protagoras actually held, then, if we are to believe Plato, was, that judgments in general,—including other, and especially moral, judgments along with judgments of perception,—are true only for the individual who makes them, while he drew no distinction between judgments of perception and other judgments, or between judgments of perception and the immediate feeling of a sensitive subject (such as, say, 'feeling hot' or 'cold'). Protagoras, therefore, cannot have distinguished between *φαίνεσθαι*, *δοξεῖν*, and *αἰσθάνεσθαι*; what he said was, that each man must decide for himself what is true or false; so that what 'appears'

¹ *Theaetetus*, 181 B.

² 179 C.

true to him, what he 'thinks' to be true, what he 'feels' to be true, is the only 'truth' of which he is capable. It is thus legitimate to say that Protagoras denied the possibility of arriving at the ultimate truth of things, or, what is the same thing, that he refused to admit the existence of absolutely universal judgments. Plato therefore subjects to close examination the doctrine that all judgments are particular, with its corollary that man is incapable of any knowledge of permanent reality. No doubt Protagoras, in a loose way, was thinking of average good opinion as having superior claims to truth; but Plato was justified in pressing home the consequences of his doctrine, on the ground that it virtually denied any distinction in kind between one man's judgment and another's, and thus contradicted itself.

How, then, does Plato connect the saying of Protagoras with the definition of knowledge suggested by Theaetetus? The latter he takes as equivalent to the view that each man comes in contact with reality solely through his perceptions. As in the case of Protagoras, no explicit distinction is in the first instance made between the 'feeling' of the individual and the 'judgment' based on it; the point of view is that of common sense, which assumes that a sensible object is simply and directly apprehended by the senses. Protagoras and Theaetetus therefore agree in making no distinction between 'feeling' and 'judgment.' And, though Theaetetus is made to identify knowledge (*ἐπιστήμη*) with sensible perception (*αἴσθησις*), no doubt all that Plato means is, that, as the ordinary man regards sensible things as immediately apprehended, and therefore never questions their reality, he naturally takes sensible perception as showing what knowledge is; if pressed, he will not deny that there is knowledge of what is not directly perceived, but he is sure to add, that perception at least is knowledge.

Now, it is of course Plato's object to show that Protagoras's view, which practically amounts to saying that there is no criterion of truth but the individual's conviction, or belief, or inability to think otherwise, is untenable. In order to do so, he therefore limits it, in the first instance, to judgments of perception; and thus he is able to connect it with the view expressed by Theaetetus,

that knowledge is sensible perception. When he has brought to light the difficulties involved in this interpretation of Protagoras's saying, he then goes on to show that even greater difficulties arise from extending it to all 'opinions' whatever. Plato's reference to the Protagorean saying is, therefore, a sort of literary device by which he exhibits the defect of ordinary uncritical opinion. The 'plain man' is not aware that, in assuming the truth of his judgments about sensible objects, on the ground of an assumed immediate apprehension, he is virtually affirming that the perceptions of every individual are true; while Protagoras has got so far as to see that immediate perceptions are not always self-consistent, and that, if he claims authority for his own perceptions, he must be ready to concede the same privilege to others.

No sooner has he interpreted the view of Protagoras in the way just indicated, than Plato goes on to connect it with the Heraclitic doctrine that "all things are in flux." In common with all the earlier thinkers except the Eleatics, as he reminds us, Heraclitus maintained that, as all things are in process, we cannot, strictly speaking, say that things 'are,' but only that they 'become'; for nothing can be found that persists unchanged in two successive moments. That Protagoras sought to justify his own view by reference to this Heraclitic doctrine is not asserted by Plato; but it is obvious that, as he certainly affirmed the immediate truth of the judgments of the individual, especially those directly based upon the perceptions of sense, he could not consistently admit the truth of the Eleatic doctrine, that reality can only be grasped by reason, and therefore he did not accept the doctrine that all true Being is in itself permanent and unchangeable. As a pragmatist before pragmatism, Protagoras was not the man to trouble himself overmuch with speculations about the ultimate nature of things. It seemed plain to him that things do change; and the proper course for a sensible man, as he did not doubt, was to act according to the view suggested by his personal experience. But, while the doctrines of Protagoras and Heraclitus are cognate, Plato does not say that Protagoras himself connected the one with the other; on the contrary, he makes it clear that the connection was only made by his followers.¹ It is their doctrine, therefore, to

¹ 156 A.

which Plato refers as a subtle combination of the Heraclitic principle that "all is becoming" with the Protagorean theory of the sensible.

Plato's criticism of this developed Protagoreanism assumes throughout, as he was entitled to assume, that whatever is known about reality must be derived from what directly presents itself to the individual. The Eleatic conception of a reality which is different from what appears to each of us is therefore excluded. There is nothing in our experience, as it is argued, to guarantee the unchangeable reality of anything whatever, and therefore we cannot say that things have a fixed and unchangeable character.¹ If this is admitted, we can understand how it comes about that the perceptions of the individual are continually changing. The qualities which we ascribe to a thing, and suppose to be unalterable, are really the momentary appearances which the thing presents to each of us when it is brought into relation to our senses, which themselves are subject to incessant change. Obviously, therefore, each individual will regard as true, and rightly regard as true, what presents itself to him at the moment of his perception; and, if any other person claims to have a different perception of the same object, he will be in no way disturbed, but will answer: "Certainly, because you are speaking of the object as relative to your senses; I am speaking of it as relative to mine." It must also be pointed out, that our judgments are by no means adequate to the subtlety of nature. The incessant fluctuation in our perceptions is due to the coincidence of the 'sensible' (*τὸ αἰσθητόν*) and 'sensible perception' (*αἴσθησις*), the 'active' and the 'passive' factors, and as there is an infinity of possible combinations, we are able to give distinctive names only to a few of the most obvious characteristics. The conclusion, then, to which we are led is that truth is what appears true to each individual at a given moment, and that, as a necessary consequence, there is no possibility of falsehood.

The doctrine thus elaborated, and referred by Plato to the followers of Protagoras, is substantially the same as that which is

¹ 152 D.

now commended to us in the name of 'pragmatism,' 'humanism,' or 'radical empiricism'; and it is therefore of great interest to see how it is dealt with by the first great idealist. Plato was quite aware that it went far beyond the simple doctrine of Protagoras, and therefore he gives a restatement of that doctrine, unencumbered by the subtleties introduced by his Heraclitic followers. His object in doing so, as I think, was not to throw contempt upon these more recent developments, but to clear the ground for fresh attack upon the whole principle, by bringing to light the unwarranted assumptions implicit in it. The *Apologia* which he supposes Protagoras to make is briefly as follows: It is certainly true that "our sensations are relative and individual," and, as a logical consequence, that what 'appears' to the individual 'is.' But, while this is undeniable, "one man may be a thousand times better than another in proportion as different things 'are' and 'appear' to him." It is not denied that "wisdom and the wise man exist; the wise man is he who makes the evils which 'appear' and 'are' to a man, into goods which 'are' and 'appear' to him."¹

The defence of Protagoras, then, consists (1) in reaffirming the main thesis, that truth is for each man what appears to him, and (2) in distinguishing between individuals, not on the ground that one man is capable of truth and another not, but because certain opinions, from the character of their *content*, 'work' better or are more conducive to a higher and happier life.

In restating the doctrine of Protagoras, Plato has removed the restriction under which he had so far been viewing it: what is now affirmed is that all judgments, and not merely judgments of perception, are true for each man. Now, one of these judgments is Protagoras's own doctrine, that for each man his own opinions are true; a doctrine which he sets forth as the 'truth,' and which he therefore virtually claims to be of universal application. But, argues Plato, he must admit that men do not usually believe all opinions to be true, and in fact regard such a doctrine as absurd; and, therefore, he is bound to admit that his doctrine, that every opinion is true, is false. It has been objected that the reply is

¹ 166 C, D.

inconclusive, because Protagoras need not grant that the opinion of another is binding upon himself. This retort, however, obviously has force only if Protagoras makes no claim to speak for any one but himself; a position which he can adopt only at the expense of making his own doctrine meaningless. It is not self-contradictory for an opponent, who admits the possibility of objectively true judgments, to deny the truth of Protagoras's view; but it is self-contradictory for Protagoras, who denies all universal judgments, to advance a doctrine which assumes the universality of his own judgment. It thus seems to me that Plato has here put his finger on the weak spot of all individualistic views of truth. The individualist must assume at least that his doctrine has a universal meaning; and, if he attempts to limit it by saying that it has no meaning except for himself, he obviously lays himself open to the reply that such a view denies that his judgment has a meaning even for himself. The criticism, as it seems to me, applies to every possible form of individualism, even to that which takes refuge in the supposed limitation of knowledge in general to what is true for man, as distinguished from other possible intelligences. There is no way of proving the absolute relativity of knowledge, for the simple reason that the doctrine that knowledge is absolutely relative must be either universally valid, and so not relative, or it is utterly meaningless. After showing the untenability of the doctrine of Protagoras, taken in its most comprehensive sense, Plato goes on to consider whether it may not be true when restricted to immediate impressions of sense.

“There are many ways,” says Socrates, “in which the doctrine that every opinion of every man is true may be refuted; but there is more difficulty in proving that states of feeling, which are present to a man, and out of which arise sensations or opinions in accordance with them, are also untrue.”¹ In this connection Plato recurs to the doctrine of the Heracliteans, which he contrasts with the opposite doctrine of the Eleatics, that the real is unchangeable. We must ask which of them speaks more truly; and “if we find that neither of them have anything reasonable to say, we shall be absurd enough to imagine that our own poor opinion may have something in it.”²

¹179 E.²181 B.

Is it possible, then, to explain the judgments of perception of each man on the basis of the flux of all things? Such judgments must rest upon the immediate feelings or impressions of the individual. Now, if these are in continual process, coming to be and ceasing to be from moment to moment, they afford nothing to which a name may be attached. On such evanescent and vanishing feelings no judgment of any kind can be based; and, therefore, knowledge cannot be identical with perception. In truth, no judgment whatever is possible without the presence in the flux of feeling of a unifying principle, which apprehends the sensible qualities of objects and grasps their likeness and unlikeness, their identity and difference. "There is, therefore, no knowledge in the impressions of sense, but only in the discourse of reason in regard to them."¹ Thus, as we must conclude, the Heraclitic reduction of reality to pure change and the Protagorean reduction of knowledge to particular judgments are equally irrational. Just as the real must be a permanent which is compatible with change, so knowledge must be a universal which comprehends the particular.

To this hurried summary of the *Theaetetus* space will only permit me to add a single word. It seems to me of great importance that any theory of knowledge which is proposed for our acceptance should be tested in the most rigid way. There is very great difficulty, because of the indefinite character of ordinary literary language, in avoiding the pitfalls of vague and loose thinking, on the one hand, and of a cramping literalism, on the other; but these opposite dangers must be faced, if we are to think consistently at all. Now, the proposition that "man is the measure of all things," is one of those large and indefinite statements, which can only lead to confused thinking unless we are careful to make clear to ourselves in which of its various possible senses we propose to understand it. Plato, rightly as I think, held Protagoras to mean that each man must determine for himself what is true, and that there is no fixed constitution of things, or at least none that we can discover, and therefore no universal standard of truth. To this doctrine his main objections are: (1)

¹ 186 D.

that it contradicts itself, and (2) that it does not account even for the existence of particular judgments. These objections, as I cannot but think, apply with equal force to the most recent forms of relativism. For, what precisely is meant by saying that our judgments are only relatively true? If there are no absolutely true judgments, what are called relatively true judgments cease to have competitors and become absolute; and if there are absolutely true judgments, contrasted in principle with those which fall within our experience, we expose ourselves to the contradiction of claiming to make the absolutely true judgment that we can make no absolutely true judgments. It is this last point that Plato urges, when he draws attention to the contradiction involved in the doctrine of Protagoras, a doctrine which, on the one hand, denies all absolute judgments, and, on the other hand, assumes the absoluteness of the judgment implied in his own formula. Plato's second objection, that relativism does not account for any judgment whatever, seems to me equally cogent. If a judgment merely connects ideas in an arbitrary way, it is indistinguishable from any other accidental association of ideas; and if it brings ideas into a relation, which in any sense expresses reality, it must to that extent be true. A judgment which affirms what has no bearing upon reality cannot be true in any possible sense. Even if it is only put forth as valid within the sphere of human action, it must at least have the truth implied in its being a true statement of what actually obtains in that connection; and it seems to me an obvious contradiction to claim truth in this sense, while affecting to deny the possibility of judgments true in the sense of expressing the real nature of things; unless, indeed, by 'the real nature of things' is meant the fiction of a transcendent and therefore unknowable realm, of which nothing can be said, because of it there is nothing to say.

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THE PHILOSOPHY OF FICHTE IN ITS RELATION TO PRAGMATISM.

IN recent discussions of pragmatism and humanism, occasional references have been made to resemblances between Fichte's doctrine and that of the pragmatists. In view of this fact, it seems to me that it may be worth while to consider some of the aspects of Fichte's philosophy which are most closely related to pragmatist modes of thought. The consideration will naturally be made from the point of view of my understanding of Fichte's philosophy as a whole, and, for lack of space, I must sometimes content myself with stating my interpretation dogmatically instead of pausing to defend it. For the defence, I must refer the reader to my more detailed study of Fichte.¹

The fundamental conception of Fichte's philosophy is that of the 'Idea of the Ego' or the 'divine Idea,' which is gradually realizing itself in the history of the human race. What is actual, what really exists, is simply the world of consciousness, the whole of concrete, individual experience.² Fichte does not recognize, beyond this world, any realm of transcendent reality, of which it is the reflection or copy. The world of finite consciousness is itself the whole of actuality.³ This world of human experience is a temporal world; time is a fundamental characteristic of consciousness and hence a necessary form that actuality wears. Thus reality is not something static; it is in continual process. What the present age produces has never been before and will never be again. Change, uniqueness, is characteristic of all that is actual.

¹ *The Fundamental Principle of Fichte's Philosophy*, New York, 1906.

² It is unfortunate to have to use a word of so doubtful meaning as 'experience,' and Fichte himself seldom employs it to indicate the whole of actuality. In using the word in this paper, I take it in its broadest signification, as including all phases of conscious life.

³ In denying that Fichte posits a transcendent realm, I am running counter to much that he himself says, if we take him literally, and to the opinion of many careful students of his philosophy. For a discussion of this question, see my monograph (*op. cit.*, chap. iii, especially pp. 77 ff., 83 ff., 106 ff.).

But reality, according to Fichte, is not merely changing ; it is also developing. The world-process is at the same time a world-progress, a continual approximation to a far-distant goal, the 'Idea of the Ego' or the 'divine Idea.' If one must characterize the Idea of the Ego in a single phrase, the best that can be suggested is 'organic unity.' The world as we apprehend it is obviously *not* unitary. It is characterized both by pluralism and by dualism. If you say that it is in a certain sense one, in that it is all consciousness and nothing but consciousness, Fichte would readily admit this. But, in the first place, as he would point out, consciousness means, apparently, many consciousnesses. And, in the second place, it is essentially dualistic, involving the distinction of self and not-self. Both qualitatively and quantitatively, the existent world fails of unity ; qualitatively speaking, it is dualistic ; quantitatively speaking, pluralistic.

In the earlier writings, it is the dualistic aspect that Fichte especially emphasizes.¹ Human life, in all its phases, he tells us, is characterized by the opposition of subject and object.² Not even Kant sees more clearly than he that the thing which we try to know is other than the knower and persistently evades our attempt to penetrate the secret of its being ; that the material world thwarts our purposes and opposes its brute resistance to our most earnest efforts ; that within the realm of moral and spiritual experience, there is ever the conflict of warring impulses, the incompatibility of moral ideal and natural desire. All this Fichte sees clearly and emphasizes sharply. Nay, he even insists that without this inherent strife, consciousness could not be, that the opposition of subject and object, in its various phases, is the indispensable condition of intellectual life, of practical endeavor, of moral and spiritual achievement.

But reality is characterized by pluralism, as well as by dualism. The actual world is not a single consciousness, but a number of consciousnesses, a multiplicity of finite beings. And these finite consciousnesses are all more or less opposed to one another.

¹ The reason for this is easily found in the historical relations of his system, particularly in his opposition to the Kantian dualism.

² "Wherever there is actual consciousness, there is this separation" of subject and object (*Werke*, Bd. IV, p. 1).

Again, in the sense-experience of each individual we have a multiplicity of external objects. The sense-world is not an organic whole, but an aggregate ; not a universe, but a 'multiverse.'¹

But duality and plurality are not Fichte's last word. For this life of ours, with its inherent oppositions and multiplicities, is yet continually guided by the ideal of unity, the Idea of the Ego. The deepest thing in man, the centre and core of his being, is a persistent striving after unity and harmony. This striving reveals itself in all departments of human life. The effort of natural science to understand and explain is most commonly described as an attempt to discover the underlying unity in the multiplicity of isolated facts, or even in apparently irreconcilable happenings. Until we can see the relations which bind the many into one, until we can show that the apparently diverse happenings are workings of the same principle, we say that we have failed to understand. Unity is thus the goal of the knowing process. But it is equally the ideal of all that we commonly call 'practical,' as distinguished from 'intellectual,' endeavor. The attempt to use the forces of nature for the welfare of oneself or of mankind, is an attempt to realize the purposes of the subject in the objective world, and thus to bring about a unity of subject and object in which they work together for a common end. Similarly, moral endeavor is the striving to bring the warring impulses of our nature into agreement, to weld into one the 'two souls which dwell in every breast.' And, once more, on the æsthetic side of life, we see the same striving to realize the ideal of unity. The artist seeks to mould his objective material, — language, tone, color, whatever it may be, — into the form which shall express his purpose, seeks to make the object express the subject. In like manner the ideal of appreciation, as distinguished from creation, in art is the merging of the subject in the object ; the sense of 'me and not-me' disappears ; the soul becomes one with the beautiful object.

¹ This second case of pluralism, the multiplicity of external objects, is not, so far as I recall, especially emphasized by Fichte. The multiplicity of individuals he not only recognizes, but tries to 'deduce.' That is, just as he tries to deduce the dualism by showing that it is a necessary condition of consciousness, and thus of the realization of the world-purpose, so he attempts to deduce the pluralism by showing that a multiplicity of consciousnesses is necessary as a means to this same realization.

In this general way, I think it may be said that the striving for unity characterizes all aspects of our life. In a passage in the *Theory of Morals* (1798), Fichte distinguishes between the practical and the intellectual life by saying that in the knowing process the subject conforms itself to the object, whereas in the practical life it makes the object conform to it.¹ "The whole mechanism of consciousness," he says, "is based upon the various aspects of the separation of subjective and objective and upon the subsequent uniting of the two. They are united, or seen as harmonizing, sometimes in such a way that the subjective is to follow from the objective, is to direct itself by the objective; in this case I *know*." Again, "they are seen as harmonizing in such a way that the objective is to follow from the subjective, that a being is to follow from my concept (the concept of purpose); in this case I *act*."²

The distinction which is here made between knowing and doing suggests some considerations that are of interest in connection with the doctrine of the pragmatists. Obviously this account falls short of being an adequate description either of knowing or of doing. In regarding knowledge as the conforming of the subject to the object, Fichte apparently overlooks that more active aspect of thought in which we put questions to nature, set traps for her in the shape of cunningly devised experiments, force her to surrender her secrets. Thus he does not bring out the thought that there is much that we must *do* if we would know, and that this doing is not a mere preliminary, but an essential part of the knowing process itself; that every real act of knowledge is, to a certain extent, a subduing of the objective world, an imposing of our will upon it.³

¹ The description of the knowing process which we have already given considers it as an attempt to get beyond pluralism. In this account of Fichte's, it is represented as an effort to overcome dualism. It will readily be seen that it can be looked at in both these ways.

² *Werke*, Bd. IV, pp. 1 ff.

³ The two aspects which we have distinguished in knowing may easily be identified in the ordinary description of scientific endeavor as an effort after unity. Scientific explanation, we say, tries to unify phenomena by referring them to a single general principle. But what is the procedure here? Are we trying to impose upon the facts a unity which has its source within ourselves, or are we trying to discover a unity

And just as Fichte here ignores the fact that in knowing we force the world, to a certain extent, to conform to our purposes, so, on the other hand, he fails to point out that in all our doing we have to take account of the nature of things. There is a certain stubbornness on the part of objects which makes the realization of our purposes dependent upon our ability to adapt ourselves to the material with which we are to work. If it be true that observation is usually futile without hypothesis, it is equally true that docility and adaptability are an important element in practical success.

But while it will readily be conceded that Fichte's description is far from furnishing an adequate account of the thought-process, it emphasizes a difference between knowing and doing that we cannot afford to ignore. In every intellectual process that reaches completion, we come, at some stage or other, face to face with a 'not-ourselves' which constrains us, and to which we must conform if we would know. In the field of natural science, this constraint is an important factor in the testing of hypotheses, and, for that matter, in all observation. In the realm of mathematics, we find ourselves similarly bound or forced at certain stages of our reasoning. We may, at the outset, assume what we like; we may will that the space with which we are to deal shall be of three dimensions, or of four dimensions, or of n dimensions. But when we have once made our choice, we are no longer free to think what we will. It is not merely that, having agreed to think in terms of Euclidean space, I *ought* not to deny the truth of the Pythagorean proposition; it is rather that I *cannot* deny it. I can refuse to think about it, can turn my attention to something which is hidden in them? If we accept the first alternative, we bring out the essential activity of thought; if the second, we emphasize the fact that, after all, we are constrained by a 'not-ourselves.' Both of these things are true. The unity which we seek to impose upon the facts is *our* unity; man himself formulates the principles by which he tries to explain 'the given.' But 'the given' will not always accept the principles which we formulate. Some of our hypotheses will not 'work'; we discover facts which compel us to abandon them. Thus the particular unitary principle which we at first devised is rejected by the facts, and we are forced to invent another. Nature herself frames no laws; she cannot initiate legislation. But she has the power of vetoing any 'law of nature' that man, the lawgiver, sees fit to make. Thus, in one sense, we ourselves create the unity and impose it upon the objective world, and in another sense, we find it within this world.

else ; or I can go through the form of denying it, can declare, in so many words, that the proposition is untrue ; but, supposing that I see the geometrical relations involved, I cannot make a real denial.¹

From this point of view, then, Fichte is right in maintaining that in knowledge the subject conforms itself to the object, whereas in action it forces the object to conform to it. And we might carry out the parallel in the æsthetic realm by saying that, in the creation of an art-product, one brings the object (the plastic material) into harmony with the subject (the artist's conception), whereas, in the contemplation of a work of art, the contemplating subject surrenders himself to the object. Both in Fichte's distinction and in that which we have just drawn, the difference is between the more receptive attitude involved in knowledge and in æsthetic enjoyment, and the more creative attitude involved in our everyday activity and in the labors of the artist.

This suggests an important difference between Fichte's theory of knowledge and that of the pragmatists ; for it is in its attitude toward this element of constraint in the thinking process that many critics of pragmatism see one of the great weaknesses of the theory. This aspect of knowing is not indeed altogether overlooked by pragmatism.² But, as Professor Rogers has said :³ "It is not enough simply to point to the fact that the process of experience is actually to an extent determinate and constrained, in order to overcome the force of the objection that on the principle of pragmatism it ought not to be so." The pragmatist does not give "sufficient weight to the insistence of the problem that arises in connection with that apparent char-

¹ I said, just above, that in the knowing process we meet something to which we must conform *if we would know*. This condition does not, however, require me to modify my present statement, that, under the circumstances supposed, I *cannot* deny the truth of the Pythagorean proposition. For all real affirmation and denial, — 'real,' in the sense of judgment, as distinguished from the mere uttering of a sentence, — involve the 'will to know.' Cf. Rickert, *Gegenstand der Erkenntnis* (1904), pp. 139 ff.

² Cf. James, *Mind*, N. S., Vol. XIII, pp. 463 ff.; and Schiller, "Axioms as Postulates," in *Personal Idealism* (1902), pp. 91 ff.

³ In his admirable discussion of "Professor James's Theory of Knowledge," *PHILOSOPHICAL REVIEW*, Vol. XV, p. 581.

acter of sensation through which it seems determined from the outside."¹

But is Fichte in any better situation than the pragmatists? We said above that, according to his theory, nothing is actual except this world of finite consciousness, that there is no other realm of transcendent actuality of which this world of ours is a copy. How, then, can we say that he comes any nearer than the pragmatists to solving the problem involved in the determinateness of our experience? It must be admitted that his position is not wholly free from difficulty; still it seems to me that he contributes something to the solution of the problem. We have seen that he regards human life as the striving to realize various ideals, all of which may be viewed as so many different forms of the ideal of harmony or organic unity. But why has it this character? Are we simply to accept this as a fact, or can we hope, in some measure, to understand it? As is well known, Fichte is not content merely to accept the fact; he is bent upon explaining it. And his explanation is found in the doctrine of the Idea of the Ego.

Heretofore we have spoken of the Idea chiefly as the goal of the infinite world-process. But this is only one aspect of its nature. According to Fichte, it is at once the goal of the world-process and the indwelling force which directs this process. In spite of his frank recognition of the dualistic and pluralistic aspects of experience, he conceives the universe, after all, as in a certain sense *one*. He seems not to recognize an absolute consciousness as distinct from the finite consciousnesses, and yet he maintains that there are in the world a common life and a common purpose. The world-process is the gradual realization of the Idea, and the Idea itself is conceived as the directive force, the indwelling law of the process.

This doctrine, whatever may be said in criticism of it, furnishes a certain explanation of the determinateness of our experience. If all reality were actually created by the individual finite wills and the thought-processes of individual finite subjects, much of the determinateness of experience would, as Professor Rogers

¹ *Loc. cit.*, pp. 583 ff.

has shown, be inexplicable. There would be nothing to guide my individual will and my individual thought-processes save the previous acts of thought and will of myself and other finite subjects. And while this might suffice to explain some of the determinateness which we experience, there is certainly much which it would leave without explanation. According to Fichte, however, reality is not simply the product of the thinking and willing of individual finite subjects; it is the product of a force which works in and through these subjects, guiding their lives and their thought toward the far-distant goal.

From this point of view, Fichte seeks to explain the determinateness of experience. The world exists for the sake of realizing the Idea of the Ego (the supreme value, of which all other values are subordinate forms). This Idea, since it is organic unity, rather than abstract identity, can be realized only in the concrete and individual, in the lives of finite subjects. The sense-world, which these subjects apprehend and with which they stand in relation, furnishes the medium for their activity, and thus for the realization of the Idea. This objective world is, in a sense, constructed by the finite subjects; each builds up his own world. But these various worlds harmonize, because there is one force at work in all the subjects. And because there is this guiding force, the sense-world exercises constraint upon the individual.

There is no question that this conception involves difficulties. In particular, how one is to conceive of a force which helps to mould the experiences of the finite subjects in a definite direction, and yet attains to consciousness only in these subjects, is a serious problem. And many, doubtless, will feel that this difficulty compels us to go farther than Fichte has gone, and assume that this force is itself a consciousness, a supreme Will.¹ But whether one can rest content with Fichte's doctrine or not, it has at least the merit that it makes a definite attempt to explain the factor of constraint in experience.

We now pass to another question, — the relation between the practical aspects of life and the theoretical. The pragmatists

¹ Fichte himself sometimes designates it as the "supreme and living Will." In my monograph (pp. 108-122), I have given the reasons which have led me to adopt the interpretation suggested in the text.

attempt "to overcome the antithesis of theory and practice" by showing that "theory is an outgrowth of practice and incapable of truly 'independent' existence." "Properly speaking," they tell us, "such a thing as pure or mere intellection cannot occur. What is loosely so called is really also purposive thought pursuing what seems to it a desirable end."¹

The doctrine that all real thinking is for the sake of some result, that judgment is purposive thought, pursuing an end, seems to me sound, and I think it is fully in harmony with the teachings of Fichte. His insistence that human life is throughout activity, and that all activity is purposive, is a distinctive feature of his philosophy. But the assertion of the purposive nature of thought may signify two rather different things. It may mean that all thinking exists for practical ends, in the strictest sense of the word 'practical.' According to this view, we never theorize except for the sake of producing some change, either in the external world or in the affective tone of our own consciousness. 'Not to know, but to do' and to feel, 'is our vocation,' and we neither could nor should wish to know except as a means to doing and feeling. There is, however, a second sense in which we may assert the teleological nature of thought. We may distinguish between 'theoretical' purposes and 'practical' ones, and may maintain that, while all thinking is for some purpose and would lose its distinctive character as thinking if it lost its purpose, still its conscious end, — and its proper end, — may often be a knowing, rather than a doing or a feeling. Thinking undoubtedly presupposes desire and will, but in certain cases these may be simply the desire and the will to know.

I am not quite certain which of these two positions the pragmatists would take, but they seem to me to show an inclination to adopt the former.² If they would not, the doctrine of the

¹Schiller, *Studies in Humanism* (1907), p. 128.

²Mr. Schiller, *e. g.*, having said that what we call 'pure thought' is really purposive, adds: "Only in such cases the ends may be illusory, or may appear valuable for reasons other than those which determine their value" (*loc. cit.*). If the disjunction here is intended to be complete, he would seem to be committed to the position that, while the actual purpose of the individual inquirer may be simply to know, this is not, strictly speaking, a reasonable purpose.

purposiveness of all judgment is not in any sense peculiar to pragmatism. There are, I suppose, comparatively few philosophical thinkers to-day who would not maintain that intellectual activity, like all other activity, is for some end.

When we inquire which of the two positions Fichte would take, we are reminded at once that he says repeatedly that we are, above all, practical beings, that we are essentially *will*. But it may be well to ask what we mean by 'will.' And as soon as we raise the question, it becomes clear to most of us, I think, that we do not mean something utterly devoid of an intellectual aspect. 'Mere will,' in this sense, would be as much an abstraction as 'mere thought.'¹ And if it be, as I readily grant, a serious error to take 'mere intellect' as the clue to the meaning of human experience, it is equally a mistake to regard 'mere will' as furnishing the clue. What we commonly call 'will' contains an intellectual element, crude or developed. The higher forms of volition involve judgment and reasoning, just as truly as the higher forms of intellection involve desire and will. And in the lower forms of volition, a crude intellectual element, — image, idea, or at least sensation, or perception, — is as noticeably present as the crude volitional element in the lower forms of intellection.

In other words, 'mere will,' uninformed by intellect, would be action without any purpose, a mere doing which was not *meant to do anything*, a blind striving. But this is not at all what we ordinarily mean by 'will.' Strictly speaking, there is no thought which is not also will, and no will which is not also thought. All real thinking is for the sake of an end, and is initiated, and to some extent directed, by will. But, on the other hand, all true volition looks toward the realization of some idea, toward the making actual of what is at present only conceived or imagined, *i. e.*, of a thought-product.

The points which I am chiefly concerned to make are: that an ideal contains, not only a volitional and an affective factor, but also an intellectual one; and that the assertion of the purposive character of human life does not necessarily involve the doctrine that thinking exists simply for 'practical' ends, in the narrowest

¹ A truth whose full force is perhaps not everywhere recognized today.

sense of the word. Both of these points, it seems to me, are in agreement with the general principles of Fichte's philosophy. There can be no doubt that the concept of the ideal is fundamental for him. But I see no reason to think that he conceives the ideal as purely volitional and affective. Man's life is in all its phases a striving. But the striving, far from being blind, is constantly illuminated by conception and idea, — by intellectual factors. And, further, I see no ground for supposing that Fichte conceives all action to exist for the sake of practical ends in the narrow sense. Much, at any rate, of what he says about the scholar and the artist suggests the opposite interpretation.¹

There is, however, another problem involved in the question of the relation of intellect to will. Fichte asserts more than once that he follows Kant in teaching the doctrine of the primacy of the practical reason, and it is important for us to understand what he means by this. In his *Theory of Morals* (1798) there is a very interesting discussion of the question.² Professor Rickert has a suggestive article, which is based, in large measure, upon this passage.³ Its purpose is twofold. In the first place, Rickert seeks to show that his own doctrine of judgment as involving the recognition of a norm, and hence as essentially practical, is also taught by Fichte. In the second place, he contrasts Fichte's theory of the relation of will to belief with the doctrine of 'voluntarism' as represented by Professor James and Professor Paulsen. In a general way I am much indebted to this article; but my interpretation of Fichte's discussion differs in some important respects from that of Professor Rickert, and I have considered Fichte's relation to pragmatism from another point of view.

Fichte starts with the formulation of the moral law: "Act solely in accordance with your conviction of your duty." But, he says, if there is any possibility of my conviction being a mistaken one, morality is dependent upon chance. And if I reflect upon this when a moral question arises, I must either take the chances and act blindly, — which is contrary to the moral command, — or

¹ Cf. *Werke*, Bd. VI, p. 436; Bd. VII, p. 110.

² *Werke*, Bd. IV, pp. 163 ff.

³ "Fichtes Atheismusstreit und die kantische Philosophie," *Kant-Studien*, Bd. IV, pp. 137 ff.; also printed separately.

must remain in a state of inaction. If, then, the type of action commanded by the law is to be possible, there must be an absolute criterion of the correctness of my conviction of duty.

The step which we must take is now apparent. Since the law commands that we shall act solely in accord with our conviction of duty, and since conviction is possible only if there be an absolute criterion of its correctness, there must be such a criterion. "From the existence and the necessary causality of the moral law, we infer something in the faculty of cognition. We assert, accordingly, a relation of the moral law to the theoretical reason, — a primacy of the former, as Kant expresses it. That without which there could be no duty is absolutely true, and it is duty to accept it as true."¹

This does not mean, however, that the moral nature of itself can discover our duty for us. The search is the task of the "reflective judgment." When, however, the theoretical faculty, in its effort to learn our duty, hits upon the right thing, we know this, not through the theoretical faculty itself, but through the practical, through an immediate feeling of conviction or approval. Here we come to an important point in Fichte's doctrine. This feeling of conviction or approval is a factor, not only in moral judgment, he says, but in all judgment whatsoever.² "What is thus approved, we call *right* in the case of actions, *true* in the case of cognitions."³

There are two points which I wish to consider in connection with this passage. One is the conception of judgment as involving the recognition of a norm. The other is the assertion that whatever is a necessary condition of duty is absolutely true. We shall take up these points in order.

I agree with Rickert that Fichte teaches that all judgment, no matter of what sort, implies a reference to a norm or value. In judgments which explicitly evaluate some aspect of our experience, declare it to be true or false, right or wrong, beautiful or ugly, this reference is obvious. But Fichte maintains that even those

¹ *Werke*, Bd. IV, p. 165.

² *Ibid.*, p. 170.

³ *Ibid.*, p. 167.

judgments which are concerned with the establishment of matters of fact have this aspect. And a little reflection shows that he is right. Even the simplest of our factual judgments, — if it be a real judgment, *i. e.*, if it be meant as an assertion and not as the expression of an opinion, — implies the recognition of an *ought*. In making any statement of fact, I virtually say: 'This is not merely what I believe; it is also what I and all other men ought to believe.' There is the same reference to a norm in such a judgment of fact as in the moral judgment, 'This course of action is right.' Fichte brings out the similarity in the two cases by saying that "what is thus approved, we call *right* in the case of actions, *true* in the case of cognitions."

But, before we go farther, we must consider what is meant by 'the recognition of a norm.' Rickert's discussion does not seem to me perfectly clear, either in his article upon Fichte or in his *Gegenstand der Erkenntnis*. Some of his statements seem to indicate that he teaches, and represents Fichte as teaching, that judgment involves the recognition of a norm, and is consequently a moral act. The first of these two propositions I fully accept, as a description both of the nature of judgment and of Fichte's conception of it. It is the second that gives me pause. The fundamental difference, I think, between that recognition of a norm which is an aspect of all judgment and a moral act is, that the latter involves an act of will, while the former does not. Both involve, if you like, the taking of a position with reference to something which we recognize as authoritative. But, in the case of moral choice, I adopt this position by an act of will, whereas, in the case of judgment, my will seems not to enter into the matter at all. That the judging process involves, as its necessary antecedent, the desire and the will to know, we have already said. But judgment itself, considered apart from these antecedents, contains no element of choice. For, in so far as it is a real judgment, there is for me no alternative. When I recognize something as true, I am conscious of it as something which ought to be believed; but also I actually believe it, and cannot help believing it. In other words, that reference to a norm which constitutes the essence of judgment involves, at least theoretically, an element

of constraint of the will.¹ I do not judge what I would ; I judge what I can and must.²

When I say, then, that judgment contains a reference to a norm, all that I mean is, — I am speaking simply for myself, — that in all judgment, as distinguished from opinion, we have the sense of there being no alternative. But this is precisely the sense of something supra-individual, of something that is independent of individual opinion, or desire, or choice. This characteristic I may, if I wish, express by saying that this is what all men ought to believe ; but the 'ought' here certainly does not indicate moral obligation.

As I have said, Professor Rickert seems to regard this recognition of the norm as involving an act of will.³ Our concern, however, is not with his theory, but with Fichte's. It is true that Fichte employs certain expressions which might suggest that he too conceives judgment as an act of will. When, *e. g.*, he says, "Certainty is possible for me only in so far as I am a moral being,"⁴ or "There is no cognition which is not related, at least mediately, to our duties,"⁵ it seems not unnatural to adopt this interpretation. But, on the other hand, we have statements like this : Whenever I pass a judgment, I have a feeling of certainty.

¹ I say "at least theoretically," in order not to exclude those cases in which the judgment that we are compelled to make is in no way inharmonious with our desires.

² The question may be raised whether this statement holds also of the moral judgment. But it will readily be seen that it does. The moral law, we commonly say, demands obedience, but does not enforce its demand. But here, again, we must make a distinction. The moral law, regarded as calling for a certain type of action or character, does indeed command and not enforce. But, regarded as a standard of evaluation, it compels assent. Whenever I make a moral evaluation, I have the consciousness, more or less explicit, of being constrained to judge in a certain way. I cannot, *e. g.*, disapprove this course of conduct, however much my distaste for certain of its consequences may make me loath to enter upon it.

³ I do not find his statements perfectly clear. On the one hand, he says : "When I will to judge, I feel myself bound by the feeling of evidence ; . . . *i. e.*, I cannot affirm or deny at will" (*Gegenstand der Erkenntnis*, 1904, p. 112). On the other hand, he tells us that "the necessity which is involved in judgment is not . . . a necessity of the *Must*. . . . We can best designate it as a necessity of the *Ought*. It stands over against the judging subject as an imperative, whose rightfulness we recognize in the judgment, and which we, to a certain degree, take up into our will" (*op. cit.*, pp. 114 ff.).

⁴ *Werke*, Bd. IV, pp. 169 ff.

⁵ *Ibid.*, p. 170.

“The imagination is now bound and forced, as it always is when we come into contact with reality. I cannot view the matter in any other way than this.”¹ And again: “He who is certain of the matter in hand” feels “that in regard to this point his freedom is utterly lost.”² In view of these emphatic statements, I incline to think that Fichte believes that in the judgment we apprehend something to which we cannot but conform, and that therefore judgment, though initiated by will, is not itself volitional in its nature.³

Just here, it seems to me, the pragmatist account is open to criticism. Pragmatism lays emphasis, and rightly, upon the doctrine that our desires and choices influence our judgments, that the intellectual nature cannot act altogether independently of the rest of the self, so that we can always be sure of having intellectual products, pure and undefiled, free from any admixture of feeling and will. That every judgment that an individual can make must be, in a sense, an individual matter, that it is *his* judgment, *his* reaction upon the material furnished by experience, is certainly true; and the philosophical world owes a debt to Professor James and others for having emphasized it. But in their zeal for showing that our volitional and emotional nature inevitably colors our intellectual life, the pragmatists have sometimes failed to take sufficient account of that element of constraint in judgment, which, to my thinking, is its most distinctive characteristic. The fact that I desire certain things and have chosen to order my life in a certain way, may indeed help to explain why my judgment, in a particular case, differs from yours. But it remains

¹ *Op. cit.*, p. 167.

² *Op. cit.*, p. 169.

³ The statement that all knowledge is, at least mediately, related to our duties presents no great obstacle to this interpretation. The human race exists, according to Fichte, for the sake of realizing the supreme value, of which the moral ideal is one aspect. Now if we view human life thus teleologically, it is natural enough to say that it is throughout moral. And if by ‘moral’ we mean ‘standing in relation to an ideal,’ ‘having value (positive or negative) with reference to a supra-individual norm,’ the statement is perfectly true. In this way one might be led to say that all our knowledge is related to our duty. But the statement does not require us to interpret Fichte as teaching that judgment is essentially an act of will. We can explain in a similar way the assertion that conviction is possible only in so far as we are moral beings.

true that what makes it a *judgment*, rather than a desire or a choice, is precisely the sense, distinct or vague, that I cannot think otherwise.

Thus, by a quite different path, we are led once more to the conception, which we have already considered, of constraint as an important element in knowing. That pragmatism does not wholly ignore the validity of this conception, we have already admitted; but we also pointed out that it fails to take sufficient account of this aspect of the knowing process, and, in particular, fails to make a place for it in its explanation of experience.

There is a minor point in Fichte's doctrine, which we can notice only briefly, that would probably commend it to the pragmatists. This is his insistence that certainty, like doubt, is a feeling, and that therefore feeling, if not volition, enters into the act of judgment. Whenever I recognize that something ought to be believed, *i. e.*, whenever I feel certain, my state of mind is not purely intellectual. A feeling of certainty is the criterion, — and, Fichte believes, the infallible criterion, — of truth. We shall come back to this point for a moment in connection with our next question, to which we now pass.

This question has to do with the primacy of the practical reason. If we interpret Fichte as not recognizing in judgment an act of the will, what becomes of his doctrine of the primacy of the practical reason, of his assertion that whatever is necessary in order that duty may be is absolutely true? Does not this assertion involve the doctrine that there are some propositions which owe their truth to an act of our volition?

It is this assertion, rather than the statement that conviction is a feeling, which contains Fichte's doctrine of the primacy of the practical reason. For the feeling of certainty is simply what indicates to us that we have found the truth. It is a test of truth, but in no sense constitutive of truth. Our concern, then, is with the question as to the meaning of the statement that that without which we could have no duty must be true.

It should be noted that Fichte expressly rejects the doctrine that the moral law itself can give us any theoretical propositions "which must be accepted as true without further investigation,

whether one can convince oneself of them theoretically or not."¹ The law simply commands us to do our duty; it does not tell us what that duty is. But, — and this is Fichte's point, — it assures us that this knowledge is attainable. If we search for it earnestly² and refuse to act without it, the knowledge will certainly be gained, — must be, for otherwise we cannot obey the law. This I cannot doubt, because to doubt it would be to reject the foundations of morality.

From this we see that Fichte's doctrine of the infallibility of conscience rests upon the proposition that, if conscience is not unerring, life has no moral significance. Since this proposition would hardly be granted by many thoughtful men to-day, it seems to me that we may pass by the question as to the possibility of an erring conscience, and consider simply the general principle that whatever is necessary in order that life may have moral significance is true. For it is this which really constitutes Fichte's doctrine of the primacy of the practical reason. But to say that everything is true which must be in order that duty may be, is only to say that we live in a moral universe. And this, at the very least, we have a right to say. The one thing which I cannot, — nay, if you like, which I will not, — doubt is that this is a moral universe, that we have duties and the ability to perform them. This belief in the significance of our sense of moral obligation is the fundamental act of faith. To this extent, at any rate, the 'will to believe' is justifiable.

But it is important to understand wherein the justification lies, because this will help us to see in what cases the 'will to believe' may properly be invoked. The declaration that the universe is moral, if it represents a real belief, is not so much a theoretical as a practical attitude.³ It is, in its essence, the expression of a will, more or less steadfast, to conform one's life to the requirements of the moral ideal. Fichte brings out this point in his

¹ *Werke*, Bd. IV, p. 165.

² This search is the task of the theoretical faculty (*loc. cit.*).

³ The pragmatist may protest that all judgment is, primarily, a practical attitude. But even if we should grant this, there would still be reason for making the distinction here. What I should then say is, that the declaration is not theoretical in the degree in which, *e. g.*, an enunciation of the principle of the conservation of energy would be.

essay, *On the Ground of Our Belief in the Divine Government of the World*. The most certain of all beliefs, he says, is the belief in God, if by 'God' you mean, not a person, but the moral world-order. But the declaration that the universe is moral "is not a wish, nor a hope, nor a considering and balancing of reasons for and against, nor a free resolve to assume something the opposite of which one regards as possible."¹ The assertion of the moral world-order is absolutely necessary, if you presuppose the resolve to obey the law which speaks within you; it is immediately contained in this resolve, is, in fact, this resolve itself."²

This, then, is what Fichte understands by 'the primacy of the practical reason.' His doctrine does not mean that our moral nature can establish for us theoretical propositions which the intellect is unable to establish. It means that certain propositions which we are wont to call 'theoretical' are not theoretical after all, — that doubt in regard to them is a disease of the will. The man, who doubts whether it is worth while, — I do not mean, of course, from the pleasure-pain point of view, — to cherish ideals and try to act worthily of them, is one whose will and whose attitude toward life are in need of healing. But he whose deepest purpose is to be faithful to his highest ideals never raises the question, — whatever other problems may vex him, — whether life has meaning.

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¹ The italics are mine.

² *Werke*, Bb. V, p. 183.

IN WHAT SENSE TWO PERSONS PERCEIVE THE SAME THING.

I THINK it would be a waste of time for any man to try to prove that two persons *do*, under certain circumstances, perceive the same thing. The fact we may take up as it is given in common experience, and as it is tacitly accepted by the sciences generally. We point out to each other this or that house; we agree to meet at the railway station; the geologist tells us of what the rock of Gibraltar is composed; the zoölogist describes the intelligence of a particular ape in the zoölogical garden, taking it for granted that the habits of that peculiar individual are open to our inspection.

That we can perceive the same physical thing is not legitimate matter for doubt. We have to do with everyday experiences that are made no whit more certain from the fact that the philosopher grants them his recognition, and are made no whit more doubtful if he is so unwise as to doubt or deny them. It means something to say that two persons perceive the same thing. The expression has come into being to mark a common experience, clearly distinguishable from other experiences. It is open to the philosopher to endeavor to analyze the experience in question, and to try to make quite plain just what it is. But this is, I think, all that he legitimately can do in the premises.

A little reflection impresses one with the truth that it is one thing to recognize such an experience, and another thing to be analytically conscious of all that it implies. One may use the words 'two persons' quite correctly, without being at all clearly conscious of what it means to be a person, or of what it means to use the word 'two' in such a connection. It is not everyone who can give even a passable account of perception. The word 'same' is an ambiguous one, and its signification varies with its context. What 'things' are has long been a matter of dispute among the learned.

There is, thus, quite enough for the philosopher to do. But one thing he may not do. He may not deny the complex and rather indefinitely known experience for which there is such overwhelming testimony, and, hardening his heart, maintain that men do not perceive the same physical things.

In the present paper I shall first build a bridge, by way of access to my proper theme; and, before discussing what it means for two persons to perceive the same thing, shall ask what it means for one person to perceive the same thing at two times or in two ways.

I.

I am talking, of course, of a physical thing, of a something which has its place in the external world. Both in common life and in science we recognize a distinction between the subjective and the objective, between ideas and things. In the science of psychology a good deal of weight is laid upon the distinction.

We are told by psychologists of high standing that a subjective experience, a 'feeling,' comes to us once, and never recurs. We may have later another feeling very much like it; but the mere fact that the two belong to different times is enough to distinguish them as two feelings. The position seems to be well taken.

To be sure, there are current forms of expression which seem to make for an opposed doctrine. We say in common life: "I have the same old pain back again"; "the old memories crowd in upon me every time that I enter the room." But I think that what we want to mark in such cases is the similarity of the experiences, and we do not take much pains to distinguish what is in our thought. We do not think of the recurrent tooth-ache as having continuously existed anywhere during the interval of our relief from it. We say: "Now I have in my arm the same pain I had in my leg yesterday"; and it seems pretty evident that it is merely the likeness of the two that we are remarking. Certainly, when two men suffer from tooth-ache, no man would be inclined to say that only one pain existed, however similar he might imagine the experiences to be.

Subjective experiences, as such, seems to stand, in a sense,

alone. Each is the experience of such a mind at such a time, and is distinguishable from every other experience. They do not agglomerate themselves into 'things,' which are allowed an existence continuous and independent of this consciousness and of that. I do not think it is too much to say that this is the way in which we feel impelled to treat the subjective, in common life, in science, and usually even in philosophy, where the difficulties of reflection are too apt to shunt us off upon side tracks of error.

It is not so when we are dealing with external things. The common opinion of mankind gives them a continuous existence independent of our perception of them. So does science. So, I think, should philosophy. No man thinks that his chair ceases to exist when he leaves the room. It does not occur to the botanist to doubt that the plants he sees by day continue to be and to grow during the night. And even Berkeley, who expressly maintains that it is one thing to exist and to be perceived, feels impelled to concede a continuous existence of some kind to the things of sense, taking refuge in the curious doctrine that they are preserved in the mind of God during the intervals of our perception of them. This is a concession of peculiar significance, coming from such a source; it shows that there is enough in our experience to compel even the idealist, if he is a man of native good sense, to recognize the distinction between subjective and objective accepted by common sense and by science.

But it is important to know what one means by these continuously existing external things. In a recent publication¹ I have tried to point out clearly and simply what is the nature of the distinction between the mental and the physical, or, as I have expressed it, between the subjective and the objective orders of experience. I may be permitted to refer, for convenience, to an illustration there brought forward.

I stand in my study and look at the fire in the grate. Everyone would admit that I am experiencing certain sensations. I close my eyes or turn my head; there is a change in my sensations,—the fire has disappeared. Would anyone admit that the fire has been annihilated?

¹ *Introduction to Philosophy*, New York, 1906, Chapter iv.

Again, I stand looking at the fire without turning my head. The stick upon which my gaze is fixed catches the flame, blazes up, becomes a glowing coal, and falls together into a heap of ashes. Here, too, there has been a change in my sensations, but no one would regard the two cases as parallel. In the one case, something happened to me, and not to the fire; in the other, something happened to the fire.

In each case we are concerned with experiences. We always depend upon observation to tell us whether, in a particular instance, it is only our sensations that have changed, or whether there has been a change in things. If what has happened can be wholly accounted for by a change in the relation of our body to the object, we say our sensations have changed, but the thing has not. If another explanation must be sought, we say the thing has changed.

That, in a multitude of instances, another explanation can be found is a matter of common and constant experience. He who watches a soap-bubble expanding, the second-hand of a watch moving, a fly-wheel revolving, a stone falling, does not account for what he perceives by a mere reference to changes in his own body or to motions of his body. He has sensations, of course, but it would be a very poor description of his experience to sum it up by saying no more than this. He has early discovered that experiences may be referred to a subjective order and also to an objective order. Some changes in his experience he calls *apparent changes*, *i. e.*, he refers them to the subjective order. Thus, he says that an object *seems* to grow longer as he approaches it. Other changes he calls *real*, *i. e.*, he refers them to the objective order. Thus, he says that the soap-bubble *really grows* larger as he looks at it, and he accounts for its growing larger by a reference to its setting in the objective order.

Now, in the objective order we have revealed to us the external world. It is a mistake to say that this is composed of sensations. By a sensation we mean, both in common speech and in the language of psychology, a certain phenomenon referred to the subjective order. If we strip away the subjective reference, we do violence to the accepted meaning of the word. It seems

to me scarcely necessary to try to prove this statement, for both in common life and in science the subjective reference of the term seems so plainly recognized. No man speaks of sensations as in a drawer or on a table ; no man gives them a place in the external world ; our text-books of psychology always refer to the sense-organs and the nervous system when giving an account of them. On the other hand, those sciences which concern themselves directly with external things find it quite possible to treat of the objective order without so much as referring to the subjective. It can be, and is, ignored.

In the objective order we have to do with *things, i. e.*, groups of interrelated phenomena which have not their analogue in the subjective order. We say that we see, touch, smell, taste, the *same thing*.

This does not in the least mean that in seeing, touching, smelling, tasting, we have identically the same experiences. Evidently we have to do with a special use of that very ambiguous word 'same,' and it is of no small importance to determine just what it means.

I may see a tree from a distance, and I may see the same tree close at hand. In the one case, what is experienced is neither quantitatively nor qualitatively similar to what it was in the other. I may approach and lay my hand on the tree. Here I have something different from either of the above-mentioned experiences. Yet I say that in all three cases I have to do with the same tree. I see the tree from this side or that, I see it today or tomorrow, — it is always the same tree. In a multitude of widely different experiences, distributed over different times, I recognize myself as perceiving the same tree. It is not worth while to quarrel with this use of the word 'same' ; it is justified by universal usage, and it marks a very important class of experiences. But it is important not to confound it with other and different uses of the word.

I shall not stop to refute the doctrine that all the experiences in question are signs of an 'unknowable' and strictly identical tree, not itself belonging to experience at all. If this doctrine is not dead, I think it ought to be, and I write here for those who have got beyond it.

The point that concerns me is this : I appear to be justified by universal usage in saying that, in a multitude of different experiences, given at different times, I am perceiving the same thing. Now, experiences which are unlike each other, and even similar experiences referred to different times, are not strictly identical. What does it mean, then, to say that I perceive twice the same thing ? I certainly never have twice the same percept.

I do not believe that a proper solution can be found for this problem by anyone who is not, either implicitly or explicitly, a realist. In saying that I perceive the same thing twice, although I never twice have the same percept, I recognize an objective order of experience which is clearly distinct from the order of my sensations and ideas. In it I recognize groupings of phenomena called 'things'; and the qualities or properties of things are the phenomena thus grouped. For changes in these qualities we account by a reference to other phenomena in the objective order; we do not regard the qualities of a thing as changing when we move away from it, or shut our eyes, or remove our hand from its surface. All this is abstracted from, when we are concerned, not with our sensations, but with things.

And since the thing, a complex of phenomena belonging to the objective order and filling some portion of time, is not to be confounded with any subjective experience, it is nowise remarkable that, while having widely different percepts, we should be perceiving the same thing. Any one of a whole series of different experiences, existing at different times, may represent the one thing. When we are concerned with the thing, and not with the percepts, as we so frequently are both in common life and in science, it matters little by what sort of a handle we take the thing up. We may see it, smell it, touch it, taste it, — it is the same thing, though, of course, seeing, smelling, touching, and tasting are not the same. And it is the same thing when perceived at two times, although successive percepts are not identical. We are not concerned with the identity of percepts; we are concerned with the identity of the external thing.

II.

Thus it seems that he who speaks of perceiving the same thing twice does not mean that he twice has the same experience. He would not speak as he does, if he had not learned to distinguish between the physical and the mental, and to treat each class of phenomena in its appropriate way.

We are dealing here with rather a complicated matter, and we must not expect to find upon our hands anything less complicated, when we go on to inquire what it means for *two* persons to perceive the same thing either simultaneously or at different times.

It seems to me quite clear that, when we speak thus, we do *not* mean that two persons have identical sensations, or even that they have similar sensations. Do we not properly say that two men perceive the same thing :

1. When one sees it,—let us say it is a cherry,—from a nearer, and one from a farther distance ?

2. When one is color-blind, and the other possesses normal vision ?

3. When one sees it, and the other touches it with his eyes closed ?

4. When one perceives it in the morning, and the other perceives it in the afternoon ?

Evidently we are not here concerned with the strict identity of the experiences of different persons. It would be foolish to identify a pain which Marcus Aurelius once had in his finger with a pain which I have in my finger now. And if a diamond once possessed by Marcus Aurelius could come into my hands, it would be foolish to say that his experience of the stone at a given moment was identical with my experience of the same stone centuries later. His pain is not my pain ; his dream is not my dream ; his percept is not my percept. But both common sense and science say that we both may see and handle the same stone. As I have indicated above, I think philosophy ought to be willing to say the same, and that it will say so unless it is misled into making a false analysis.

As in saying that a man may perceive the same thing twice, or in two different ways, we mark the distinction between 'the thing,' a complex in the objective order, and all possible subjective experiences of the thing; so here we clearly recognize the distinction between subjective and objective. The difference in the two cases is, that in the latter we are recognizing more than one subjective order, and relating each to the objective. In other words, we are recognizing the *eject*.

It is interesting to notice that even those who do not see their way clear to admitting an objective order, properly speaking, and who so confuse subjective and objective as to try to construct the external world out of sensations, are forced to an involuntary admission of the distinction which they try to ignore. Witness the following from Professor Pearson: "No better way of realizing the different selective powers of diverse perceptive faculties can be found than a walk with a dog. The man looks out upon a broad landscape, and the signs of life and activity he sees in the far distance may have deep meaning for him. The dog surveys the same landscape indifferently, but his whole attention is devoted to matters in his more immediate neighborhood, of which the man is only indirectly conscious through the activity of the dog."¹

The man and the dog are supposed to be walking *together*. Professor Pearson recognizes no external world save that in the mind of the man, or that in the mind of the dog, or that in some other mind. May we ask where they are walking? Is it in the mind of the man? Is it in the mind of the dog? Is each walking in his own mind with his thought of the other? They look out upon the *same* landscape. In what sense is it the same? One landscape appears to be in the mind of the man, and another landscape in the mind of the dog. The two are widely different. *What* is the same in the whole transaction? and what does it mean to say that the two creatures are *together*?

The fact is that, when one discards the external world, the objective order, and confines oneself to sensations and ideas, the word 'together' wholly loses its significance, and it becomes pal-

¹ *The Grammar of Science*, London, 1900, p. 102.

pably untrue to say that two creatures perceive the 'same' thing. The man does not perceive the sensations of the dog; the dog does not perceive the sensations of the man. What is there for both to perceive? and what can perception mean?

From these difficulties one is extricated, I think, when one recognizes unequivocally the objective order, and the 'things' to be found in it. We sometimes loosely speak of having the external world 'in common,' while admitting that sensations and ideas are our own private property. There is no objection to speaking thus, if we avoid a misconception of the phrase. But enough has been said above to show that we have no right to mean, when we employ it, that what is in one mind is identical with what is in another.

III.

Here there seems to rise in our path a real difficulty, and it deserves to be considered in a division by itself. We all admit that there is more than one subjective order, — that is, we admit that there are many minds. It may fairly be asked: Must we not go on to say, that there is more than one objective order? Must we not admit more than one world? in which case, Where is the 'sameness' that we have been discussing all along?

Let us take the case of the man and the dog taking a walk. The man is conscious of a subjective order and of an objective order. That is to say, he has sensations and ideas, and he perceives a world. We believe that the dog also has sensations and ideas, and perceives a world. The sensations and ideas of the man are presumably more or less different from those of the dog. May we not infer that the objective order as revealed to the man is also different from the objective order as revealed to the dog? Thus, if the dog's mind differs from the man's mind, is it not fair to say that the dog's world differs from the man's world? Are we, then, in the two cases talking about the same world?

When we approach such a problem as this, I think it is best for us to begin by coming back to common experience and to science, in order that we may make sure of our material. After that we may begin our analysis. We should keep in mind that:

1. We all say in common life 'the world'; and we say 'my

sensations,' 'your sensations,' 'my mind,' 'your mind.' We do not, as a matter of fact, treat the subjective and the objective in the same way. This is not an accidental thing; the distinction appears to be very significant.

2. In physical science we find an account of the world. A certain science, psychology, concerns itself with the world as it appears to this mind or to that mind, *i. e.*, with subjective impressions of the world. But physical science speaks of the one world.

It is significant that it finds it possible and convenient to do this, and to ignore the differences in experience with which the psychologist must busy himself. And physical science is not concerned with the 'unknowable'; it is not a castle in the air, but is based upon experience. Nevertheless, it can and does talk about the one world which we all perceive in some sense of that word.

Thus the botanist describes a plant. One description suffices for his purpose. Yet every botanist who is anything of a psychologist is perfectly well aware of the fact that a plant looks different at different distances, that it does not look the same to men whose eyes differ, that it probably presents itself under still different aspects to lower animals of various grades, etc. For him it is not necessary to go into all this. One description suffices; he may talk of 'the plant.'

The plant which he has been examining, and of which he speaks, he refers to a particular place and time, *i. e.*, it has its definite position in the objective order. It is not to be confounded with any other plant, which has existed at some other time, or which may now exist in some other place. When he says that he and another man see the same plant, he refers his sensations and those of the other man to the one thing in the objective order; and he can perfectly well distinguish between two men perceiving the same plant and two men perceiving different plants.

How, in general, we are to understand the reference of sensations to things, — how we are to conceive mental phenomena to be related to the physical world, — I have tried to make clear in

the volume referred to earlier in this paper.¹ I do not think it is necessary to complicate this discussion by entering into the question here.

The difficulty which immediately concerns us can be treated independently. It is this: The man refers his own sensations and those of his neighbor to a certain thing in the objective order, — the plant. But is not the plant in question a part of the objective order as revealed in *his* experience? Must he not admit that the objective order revealed to another may be more or less different? How, then, *can* he feel justified in going on talking about 'the plant' as though there were but one object?

It is surely too simple and primitive a solution of this problem to maintain that something in one man's experience is strictly identical with and indistinguishable from something in another man's experience. We speak of two minds as perceiving the same thing in cases in which such a confusion is palpably absurd, — in cases in which the experiences are widely different in kind, as has been pointed out above. To draw intersecting circles, and to put an x into the space covered by their overlapping portions, can only be misleading.

The justification for our speaking, as we do both in common life and in science, of 'the plant,' must be sought, I think, in a very different direction. We leave out of consideration the differences which mark the experiences of different minds, because it is not necessary, when we are occupied with external things, to dwell upon them. Psychology cannot overlook them, of course; physical science can. And it is possible to abstract from them in this field, because, if we really could describe with absolute accuracy the objective order *as it is revealed in our experience*, and if we knew fully the relation of subjective to objective in our own experience, we should have the instrument for attaining to a knowledge of all other experiences of which it means anything to say 'they exist.'

I cannot but think that the idealist has reflected insufficiently upon the significance of the objective order. The objective order as revealed to us constitutes an external world in space and time,

¹ See Chapter ix.

with reference to which we may order and arrange all our own subjective experiences ; a world which makes it possible for us to distinguish the pain of yesterday from the pain of today, last night's dream from the similar dream of the night before ; to speak of the mountains as now looking small and blue and now gigantic and of a different color, and to explain why such differences in our experience occur ; to say, and to feel justified in saying, that our dawning consciousness had its date in the latter half of the last century.

And the objective order as revealed to us is the stepping-stone to a knowledge of the experiences of other minds. We infer, from what we perceive, reasoning by analogy, that there is in the experience of other minds, — of some of them, at least, — a distinction of subjective and objective similar to that which obtains in our own. We believe that other men perceive an external world, are conscious of sensations and ideas, and infer our existence.

Is it *our* external world that they perceive? Is there but *one*? Yes! in the sense that it is possible to pass, by using the objective order as a bridge, from the experience of one mind to the experience of another. One description of the objective order is enough of a bridge. A true and complete description of the world in terms of my experience is *a true and complete description of the world*. From it, if I knew enough about the relations of mental phenomena to physical, I could infer how the world looks to others.

Our knowledge in this field is limited, but it is not wholly lacking. Just as, from a single description of a mountain, I can to some degree guess how it will look to me from this point or from that, from a distance or when I am climbing upon it ; so, from a single description, I can get some idea how an object will present itself to another man. When we are concerned with *the bridge as a bridge*, and not with the varying experiences to which it may serve to lead us, we are dealing with one thing in a true sense of the word 'one.' We abstract from the differences in question because they do not concern us.

Thus, we may say that the world presents itself under differ-

ent aspects to different minds, and yet that we are dealing with the one world. We may say this without either confounding this man's experiences with the experiences of that man, or having recourse to that meaningless nonentity, the 'Unknowable.' We have to do with experiences, and no two experiences are strictly identical with each other; if they were, we could not call them two. But the experiences form a system, and we may pass from one part of that system to another. The bridge that helps us over may take on one aspect or another. In so far as it performs the same function, it is the same bridge. Both in common thought and in science it is recognized as the same.

And I, for my part, think that both in common thought and in science it is implicitly recognized that it is the same in just the sense pointed out above. Certainly neither the plain man nor the man of science would be inclined to say that my sensations are identical with the sensations of some other man. Neither of them, when he asks, in a concrete instance, whether the dog and the man are looking at the same bird, gives even a thought to the 'Unknowable.' To both, the 'same' thing is a physical thing, not to be confounded with anyone's percept. To make explicit what seems to be implied in their treatment of the thing, and of the varying aspects under which it appears to different minds, I think one must recognize the objective order and the doctrine of objects discussed above.

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MNEMONIC VERSES IN A NINTH CENTURY MS.:

A CONTRIBUTION TO THE HISTORY OF LOGIC.¹

STUDENTS of the history of logic are aware of the disputed origin of the mnemonic lines *Barbara, Celarent*, etc. Whether we agree with Prantl, who contends that the first mnemonic lines were Greek and were formulated by Psellus (b. 1020) or with Rose, Thurot, and others, who maintain that the verses are of Latin origin and date from the thirteenth century,² we are surprised to meet in a manuscript dating from the ninth century a set of mnemonic verses which, though they do not contain the technical words, *Barbara*, etc., or their equivalent, yet served the purpose for which those words were afterwards invented.

The MS. is Codex Sti. Galli 64 (Saec. IX). It is a parchment 4to volume, containing 414 pages. The contents have been accurately described by Scherrer and Meier,³ with the exception of a collection of verses which occur on pages 408 and 409. Scherrer describes them as "42 Hexameter eines unbekanntes Verfassers über die Kategorien," and Meier alludes to them in the same terms: "Einer Handschrift des 9 Jahrhunderts welche die *Periermenia* des Apuleius enthält sind 42 Hexameter über die Kategorien beigeschrieben, Gedächtnisverse, welche wohl bestimmt waren, der lieben Jugend eingequält zu werden." Apparently both writers were misled by the word *categoria* which occurs in the second line, where it is evidently a mistake for *categoria*.

¹ It is a pleasant duty for me to make public acknowledgment of the valuable aid which I received from Professor Clemens Baeumker, of the University of Strassburg, in the task of reading and arranging the lines which form the subject of this paper.

² Cf. Prantl, *Gesch. d. Logik*, II, 2. Aufl., pp. 266 ff.; Michael Psellus u. Petrus Hisp., *eine Rechtfertigung* (Lpz., 1867); Rose, in *Hermes*, II (1867), pp. 146 ff.; Thurot, *Rev. Archéol.*, n. s. (1864), pp. 267-281; *Rev. critique*, 1867, nr. 13 and 27; Stapper, *Festschr. zum 1100jahr. Jubiläum des deutschen Campo Santo in Rom* (Freib. i. B., 1896), pp. 130 ff.

³ Scherrer, *Verzeichniss der Handschriften der Stiftsbibliothek von St. Gallen* (Halle, 1875), p. 29; Meier, *Gesch. d. Schule von St. Gallen im M. A.* (in *Jahrb. f. schweizerische Gesch.*, X, Zurich, 1885, p. 111).

Indeed, the lines have not a word to say about the Categories; they contain in mnemonic form an enumeration of the syllogistic moods which are valid in each of the three Figures. The substitution of *categoriis* for *categoricis* in the second line, of *His* for *Bis* in the fifth, and of *quantum* for *quartum* in the twelfth, leads us to believe that here we have to do, not with an autograph, but with a copy made by one who had but an imperfect understanding of what he was writing. Who the author was, it is impossible, of course, to determine. The specimen is unique, there being, so far as we know, no similar attempt on the part of the early scholastic writers on Dialectic. The metrical compendium beginning "Doctor Aristoteles," published by Cousin,¹ belongs to a later date. It is natural to think that the verses were composed at the monastery of St. Gallen, where, as we know, the seven liberal arts were taught towards the end of the ninth century, more than ordinary attention being devoted to Dialectic. There the tradition of the school of Fulda was given a new impulse by the advent of Moengal from Ireland in the year 841. Moengal and Iso it was who taught and trained Notker, Tutilo, Ratpert, etc. (early in the tenth century), under whose influence the monastery attained the acme of its literary and artistic productivity. The verses in Codex 64 cannot, however, be definitely assigned to any of these; we must be content with assigning them to some teacher in the ninth century, perhaps in the second half of the ninth, at the time, namely, when Moengal's gift of books to the monastic library placed at the disposal of the Magister at St. Gallen several logical treatises unknown to his predecessors. The Codex (pages 390 ff.) contains a copy of the *Perihermenias* of Apuleius. This may have been one of the volumes of Moengal's library. But it is difficult to say with certainty whether the author of the mnemonic verses used the work of Apuleius, because, as we shall see, he might have used Cassiodorus, who copies Apuleius, or Isidore, who copies Cassiodorus, with almost textual fidelity.

¹ *Ouvrages inédits d'Abelard*, pp. 658 ff.

The lines are as follows :

[T]u quicumque velis verum discernere falso¹
 Disce categoriis² (*leg.* categoricis) primo concludere formis.
 Quarum prima novem species ; bis bina (*sic*) secunda ;
 Tercia bis ternas.³ Prima sic cernitur : una
 5 His (*leg.* Bis) toto totum concludit jure fatendi,⁴
 Parteque reflexa nascetur formula quinta.⁵
 Altera, concesso toto totoque negato,
 Excludit totum recte,⁶ totumque recurrens

¹ The first line is possibly an echo of Sedulius's "Tu quicumque velis gaudiflua dona salutis" (*Poet. Aevi Carol.*, III, 197), or of Alcuin's "Tu quicumque cupis requies cognoscere fratrum" (*op. cit.*, I, 344). The notion that a knowledge of the forms of the categorical syllogism is a valuable aid to the discernment of truth from falsehood may have been suggested by Isidore's introductory remark: "Sequuntur dehinc dialectici syllogismi ubi totius eius artis utilitas et virtus ostenditur, quorum conclusio plurimum lectorem adiuvat ad veritatem investigandam" (*Etymol.*, II, 28, Migne, *P. L.*, LXXXII, 146).

² The term 'categorical,' as opposed to hypothetical, occurs both in Isidore (*loc. cit.*) and Cassiodorus (*De Artibus et Disciplinis Liberalium Artium*, Migne, *P. L.*, LXX, 1171 B); and, although Apuleius generally uses the term 'predicative' as opposed to 'conditional' (*Apulei Liber peri epumveias*, ed. Goldbacher, in *Wiener Studien*, Bd. VII, 1885), yet in the Codex from which the above lines are copied the word *categorici* occurs where we should expect *predicativi*; *e. g.*, fol. 390 has "Perierminiae Apulei ordiuntur, in quibus continentur *Categorici* syllogismi."

³ "Quarum prima novem species, bis bina secunda, tertia bis ternas" is, of course, the distribution of the valid moods among the three figures, — nine in the first, four in the second, and six in the third, — the fourth figure not being recognized as valid. Apuleius has (p. 273) "Quippe in prima formula novem soli moduli, sex autem conjugationes reperiuntur; in secunda quattuor moduli, tres conjugationes; in tertia sex moduli, quinque conjugationes." By *conjugationes* he seems to mean combinations of premises independently of the mood.

⁴ "Una bis toto totum concludit jure fatendi" means *Barbara*, which from two universals (*bis toto*) concludes a universal (*totum*).

⁵ "Parteque reflexa nascetur formula quinta" passes immediately from the first mood to the fifth, *Baralipon*, which is obtained by conversion (*parteque reflexa*) from the first. The term *reflexio* was commonly used to render the Aristotelian *ἀντιστροφή* (*Cf. Anal. pr.*, II, 8, 55b1), Apuleius, according to Prantl (*op. cit.*, I, 584), being the first to use *conversio*. It is, indeed, remarkable that our hexameters do not use the word *conversio* except in its adverbial form. In the present context Martianus Capella (Ed. Eyssenhardt, p. 130) has "Si reflexim inferas," and Isidore (col. 146, copying Cassiodorus, col. 1671 D), "per reflexionem." Apuleius (*loc. cit.*) has "At si reflexim inferas: Quoddam igitur bonum justum, fit ex eadem conjugatione quintus modus. Nam sic tantum reflecti posse universalem dedicativum supra docui."

⁶ "Altera, concesso toto totoque negato, excludit totum recte" has reference to *Celarent*, which from a universal affirmative and a universal negative concludes a universal negative directly. Here, instead of *recte*, Isidore and Apuleius have *directim*, while Cassiodorus has *directum*.

- Abdicat et sextam probatur gignere formam.¹
 10 Partibus et toto quamvis concludere partem
 Tercia directe, conversum septima surget
 Semper confirmans.² Jam tum (tū) increocere quantum (*leg.*
 quartum)
 Proloquium incipiet, quo pars conceditur una
 Abnuiturque omne, cludit propulsio partis.³
 15 Hinc octavo docet totum depellere, totum
 Sumere, quæ tandem finitur parte negata.⁴

¹ "Totumque recurrens abdicat et sextam probatur gignere formam." — The meaning is that, as *Celarent* from two universals, the one affirmative and the other negative concludes a universal negative, so the sixth mood, the second indirect mood, as we call it, namely *Calemes*, concludes from the same universal premises by first converting the universal negative premise (*totum recurrens abdicat*). It remains to explain the terms *recurrens* and *abdicat*. *Recurrere* occurs in Ms. St. Galli 820 (Sæc. X.), fol. 55b, also in Mart. Capella, 125, 10; in both cases it means "to be converted." 'Abdicat' and 'dedicat' are in accordance with the general terminology of the logical literature of the early Middle Ages; Apuleius, Isidore, Casiodorus, and Martianus Capella use *dedicativa* and *abdicativa* for *affirmative* and *negative* (propositions). Apuleius alone uses the verbs *dedicare* and *abdicare*.

² "Partibus et toto quamvis concludere partem tercia directe, conversum septima surget semper confirmans." — These lines refer to *Darii* and *Dimatis*; from a universal and a particular we may conclude either particular (*quamvis partem*); if we conclude directly, we have the third mood, *Darii*; if indirectly (*conversum*), we have *Dimatis*, the seventh mood. *Conversum* may be taken to be an adverbial form, opposed to *directe*; indeed, some of the Mss. of Isidore have *directum* as an adverbial form instead of *directe*. So, also, the text of Martianus Capella, 130, 23.

³ "Jam tum increocere quartum proloquium incipiet, quo pars conceditur una abnuiturque omne, cludit propulsio partis." — This is the fourth mood, *Ferio*, which from a particular affirmative (*pars conceditur una*) and a universal negative (*abnuitur omne*) concludes a particular negative (*propulsio partis*). The use of *proloquium* to mean *mood* or *syllogism* is unusual; in Apuleius the word is used to signify a proposition, *e. g.*, p. 259, (*propositio*) "quam vocat Sergius effatum, Varro proloquium, Cicero enuntiatum"; the reference to Varro relies, probably, on Gellius, XVI, 8. In Notker's *Periermenias* (a translation of Boethius's Commentary) *proloquium* means proposition; *e. g.*, p. 499 of Piper's edition (*Die Schriften Notkers*, Freiburg, 1895). In Martianus Capella the meaning seems to vary between *mood* and *proposition*; *cf.* 102, 15 f., and 396, 13 ff. The St. Gall manuscript, from which our mnemonic lines are taken, has on fol. 412 a gloss on the use of the word by Martianus, which reads: "Proloquium dicitur perfecta sententia significans verum aut falsum." With regard to the word *abnuitur*, it is sufficient to note that *confessiva* and *abnuitiva* were frequently used for *affirmative* and *negative*. Finally, *cludere* for *concludere* is in accordance with the usage of Apuleius.

⁴ "Hinc octava docet totum depellere, totum sumere, quæ tandem finitur parte negata." — This is the eighth mood of the first figure, namely *Fapesma*, which from a universal negative (*totum depellere*) and a universal affirmative (*totum sumere*) gives

- Ultima nona dehinc concludens, abdicat omne,
 Confirmans partes, partem contemnere gaudet.¹
 Post haec pulcra tibi splendescet forma secunda,²
 20 Que prima specie cludit dispendere totum,
 Abdicat et totum, totumque negetur ab illa.³
 Altera totius pulsu noscetur eaque
 Omne datur plene pleneque negabitur omne.⁴
 Tertia, dum sumit partem, propellere plenum
 25 Imperat, excluso finitur nomine partis.⁵

a particular negative conclusion (*finitur parte negata*). Isidore has (*loc. cit.*): "Octavus modus est qui conducit ex universali abdicativa et dedicativa particulare abdicativum per reflexionem, ut; Nullum turpe honestum, Omne honestum justum, Quoddam igitur turpe non est justum." It will be remarked that, if the mood is to be taken as it stands, it does not belong to the first figure at all; and if, as in the case of the other moods, we are first to invert the order of the premises, and then convert the Major Premise, we have "Omne honestum justum, Nullum turpe honestum," which, without any "reflexio," gives us more than the conclusion, "Quoddam igitur turpe non est justum."

¹"Ultima nona dehinc concludens, abdicat omne, confirmans partes partem contemnere gaudet." The ninth mood, that is to say, the fifth of the indirect moods, *Fresisorum*, has for premises a universal negative (*abdicat omne*) and a particular affirmative (*confirmans partes*), and for conclusion a particular negative (*partem contemnere gaudet*). Apuleius (*loc. cit.*): "Nonus quoque modus per similem conversionem (he refers to the eighth mood), ex universali abdicativa et particulari dedicativa abdicativam particulare conducit reflexim." He then proceeds to explain why the first figure alone has "indemonstrable" moods, and why the fourth mood of the first gives two indirect moods, while each of the others gives only one.

²"Post haec pulcra tibi splendescet forma secunda." — *Forma* here means *figure*; compare Apuleius, "Nunc formulæ modos trademus secundæ," and Martianus, "Secundæ formæ primus modus est," etc.

³"Que prima specie cludit dispendere totum, abdicat et totum, totumque negetur ab illa." — This mood (species) is the second of the second figure, *Camestres*, which from a universal affirmative (*dispendere totum*) and a universal negative (*abdicat et totum*) concludes a universal negative (*totumque negetur*). In connection with this mood, Apuleius calls attention to the reduction to the moods of the first figure. Isidore and Cassidorus have nothing to say about reduction.

⁴"Altera totius pulsu noscetur, eaque omne datur plene pleneque negabitur omne." — This is *Cesare*, the first mood of the second figure, which from a universal negative Major (*totius pulsu*) and a universal affirmative Minor (*omne datur plene*) concludes a universal negative (*pleneque negabitur omne*). Apuleius remarks that this is the same *conjugatio* as the preceding mood; that is to say, the propositions are the same, but the order is changed.

⁵"Tertia, dum sumit partem, propellere totum imperat, excluso finitur nomine partis." — This is *Festino*. It will be observed that our author, as does also Isidore, first gives the particular affirmative (*sumit partem*), and places the universal negative (*propellere plenum imperat*) in the second place. The conclusion, a particular negative, is indicated by the words "excluso finitur nomine partis."

- Quarta negat quiddam, totum firmare tenetur
 Ultima conducens quærit secernere quiddam.¹
 Sera dehinc species verorum.²
 In qua tres prime cernuntur sumere semper,
 30 Tres quoque colludunt, varie firmantque negantque.³
 Primus namque modus bis toto cludere quædam
 Indicat, et verum dicet si rite recurrat.⁴
 Partibus ille sequens et toto ducere quedam
 Indicat, et verum dicet si rite recurrat.⁵
 35 Tuncque inde subest qui toto parteque quedam
 Indicat, et verum dicet si rite recurrat.⁶
 Omne docens, omnemque negans, mirabile quedam
 Excludi quarto.⁷ Procedit in ordine quinti,

¹Quarta negat quiddam, totum firmare tenetur, ultima conducens quaerit secernere quiddam." — This is the fourth mood of the second figure, namely *Baroco*, the premises, as in the case of *Festino*, being transmuted. "Negat quiddam" indicates the Minor, and means a particular negative; "totum firmare tenetur" means that, since the Minor is a particular negative, the Major must be a universal affirmative. "Quaerit secernere quiddam" (the reading is conjectural) must mean that the conclusion is a particular negative. The word *conducere* is used frequently by Apuleius and Isidore to mean *conclude*; compare the Greek *συνάγειν*.

²The reading of the first part of this line is conjectural; the last part of the line defied all effort to decipher it.

³The reference, of course, is to the third figure, and the meaning seems to be that the first three, *Darapti*, *Disamis*, *Datisi*, are affirmative, while the last three, *Felapton*, *Bocardo*, *Ferison*, combine affirmative and negative propositions.

⁴"Primus namque modus bis toto cludere quaedam indicat, et verum dicet si rite recurrat." — The first mood of the third figure, *Darapti*, from two universals (*bis toto*) concludes a particular (*quaedam*). The words "et verum dicet," etc., signify that the conclusion may be converted simply, or that the converse of the conclusion may also be inferred. Apuleius and Isidore express the same idea by the phrase "tam directim quam reflexim"; Cassiodorus has "tam directum quam reflexum." Apuleius adds, by way of explanation: "Quippe non interest ex utra propositione facias particulam subjectivam, quoniam non interest utram prius enunties. Ideo recte arbitratus est Theophrastus propter hoc non unum modum hunc sed duos esse."

⁵"Partibus ille sequens et toto ducere quaedam indicat." — This is *Disamis*, the second mood of the third figure, which from a particular (*partibus*) and a universal (*toto*) infers a particular (*quaedam*). And, of course, we may also infer the converse of the conclusion (*et verum*, etc.).

⁶"Tuncque inde subest qui toto parteque quedam indicat," etc. — *Datisi* from a universal (*toto*) and a particular (*parte*), both being affirmative, infers a particular conclusion (*quaedam*), or its converse (*et verum*, etc.).

⁷"Omne docens, omnemque negans, mirabile quedam excludi quarto." — The construction here is somewhat involved; but it is evident that the mood *Felapton* is meant, the premises being once more "transmuted," that is, a universal affirmative

Parte data, toto pulso, qui pellere quedam
 40 Admonet.¹ Hinc sexto formarum desinit ordo
 Qui plenum firmare iubet quedamque repugnat,
 Abdicet ut quedam.² Finitas aspice formas.

In this metrical treatise, rather ingeniously contrived to aid the student of logic in the difficult task of remembering the valid moods in the three figures of the syllogism, it would, of course, be idle to look for evidences of an original contribution to the science of logic. It belongs to an age in which originality was not a dominant characteristic of teachers of logic. It simply sums up what was to be found in the treatises of Apuleius, Martianus Capella, Cassiodorus, and Isidore. Its terminology does not vary essentially from that which was current in the schools of the ninth and tenth centuries. For instance, its use of *cathegorici*, *recurrere*, *cludere*, *abdicare*, *abnuere*, etc., as explained in the foregoing foot-notes, is strictly technical. It was, however, inevitable that the exigencies of metrical composition should necessitate the occasional use of terms other than those which were to be found in the text-books. As examples, we may cite *contemnere* (line 18), *propellere* (line 24), *repugnare* (line 41), and *pulsu* (lines 38 and 22) to express the idea of negation; *dispendere*, *docere* (lines 20 and 37), and *dare* (line 39) as synonyms for 'affirm'; *plene* (line 22) as equivalent to 'universally.'

With regard to the sources which the author of the lines may have used, any or several of the treatises already mentioned might have served his purpose, and so great is the resemblance among them that it would be hazardous to guess which of them (*omne docens*), a universal negative (*omnemque negans*), from which, "strange to say," we get a particular negative conclusion (*mirabile quedam excludi*). The occasion for wonder, presumably, is that from two universal premises we get a particular conclusion.

¹ "Parte data, toto pulso," etc. — *Fresison*, generally regarded as the sixth mood of the third figure, has for its premises a universal negative (*toto pulso*) and a particular affirmative (*parte data*), and for conclusion a particular negative (*pellere quedam admonet*).

² "Hinc sexto," etc. — The mood *Bocardo*, which here, as in Isidore, is arranged as AOO, has a particular negative Major premise (*quedam repugnat*), a universal affirmative Minor (*plenum firmare*), and a particular negative conclusion (*abdicet ut quedam*).

is the most likely to have been used. The presence of a copy of Apuleius's *Perihermenias* in the same codex may, perhaps, constitute a probability in favor of his having been the author used. But we know that the monks of St. Gall were acquainted with Martianus Capella also, and our codex has, in fact, some glosses which evidently refer to the text of the curious work, *De Nuptiis*, etc. It is remarkable, indeed, that, if the work of Apuleius was used, there is no reference to the doctrine of Reduction.¹

The question of authorship offers no less difficulty than does that of the immediate source of the treatise. Allusion has already been made to the impulse given to the study of the seven liberal arts at St. Gall by the arrival of the Irish teacher, Moengal, in the year 841. We know from the records of the monastery itself that, under his influence and that of Iso (died 871), the seven liberal arts were diligently studied "for the welfare of the holy Church of God."² We know also that among the pupils of Iso and Moengal were Notker, Balbulus, Tutilo, and Ratpert, who flourished during the last decades of the ninth century, and were writers as well as teachers. But to which of these the mnemonic lines are to be ascribed it is impossible to determine, although it is natural to believe that some one of them is the author of the ingenious treatise.

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¹ Cf. Apuleius, *op. cit.*, 272, 25 ff.

² Ekehard, in *Vita Sti. Notkeri*.

REVIEWS OF BOOKS.

Morals in Evolution : A Study in Comparative Ethics. By L. T. HOBHOUSE. New York, Henry Holt and Company, 1906. 2 Vols. — pp. xvii, 375 ; vii, 294.

The purpose of these volumes is to trace the evolution of the ethical consciousness as it is displayed in the habits and customs, rules and principles, which have arisen in the course of human history for the regulation of human life. In order to understand this ethical development, we must make a comparative study of the laws and customs of men at different stages of social life, as well as of the ideas and ideals underlying the social or ethical order, the reasons, that is, which men give for making and obeying laws of conduct. There are, in short, two distinct problems before us. One is to describe and classify the leading types and customs to be found in each great department of social life, with a view to ascertaining the direction of ethical progress ; another is to examine the moral sanctions which have been offered for rules of action, in order to discover, if possible, the line of advance from lower to higher conceptions, and to note how far the higher ethical and religious ideas have actually moulded the practice of men. The first problem is solved in Part I, "The Standard," which presents us with a comparative study of institutions ; the second in Part II, "The Basis," which gives a comparative study of religion and the great ethical systems of history.

The work is a study in comparative ethics, the business of such a science being "to determine the generic character and principal specific variations of the conception of the Good as actually held by men in different places at different times" (Vol. I, p. 20), and to inquire whether among these conceptions there is anything which can be called development. In entering upon such an investigation, the student at first experiences a bewildering sense of the diversity of moral judgment, but is finally impressed with a more fundamental and far-reaching uniformity (p. 31). We can hardly deny to any race of men or period of time the possession of the primary characteristics out of which the most advanced moral code is constructed. If there is any ethical progress, it is to be found, not in the development of new instincts or impulses, or in the disappearance of instincts that are old and bad, but rather in the rationalization of the moral code, which, as society advances, becomes more clearly thought out, and more con-

sistently and comprehensively applied. The spiritual consciousness deepens, the ethical order is purged of inconsistencies and extended in scope. Blind adherence to custom is modified by an intelligent perception of the welfare of society, and moral obligation is set upon a rational basis. The psychological equipment of human beings, on the one side, and the actual needs of social life, on the other, are the underlying factors determining rules of conduct from the lowest stage upwards; but it is only at the highest grade of reflection that their operation enters fully into consciousness, so that the mind can understand the grounds and value of the laws which it has itself laid down (pp. 33 ff.).

After discussing the scope and method of comparative ethics (pp. 1-41), and outlining the main types of social organization (pp. 42-78), the author takes up the ethical institutions, *i. e.*, those customs and laws which are most directly related to ethical ideas, in a series of chapters on: "Law and Justice" (pp. 79-133), "Marriage and the Position of Women" (pp. 134-177), "Women in the Civilized World" (pp. 178-239), "The Relations between Communities" (pp. 240-280), "Class Relations" (pp. 281-331), "Property and Poverty" (pp. 332-363). The following conclusions are reached in this part of the work: Primitive society rests on ties spontaneously formed by blood-kinship, by intermarriage, and perhaps by mere neighborhood. On the next stage, the social structure is extended, and in some respects also consolidated, by the rise of military power and the separation of rulers and ruled; the principle of force, underlying government at this stage, is transmuted and partially moralized by ethical and religious influence into a principle of authority, exacting obedience of its subjects as a right, but owing them consideration and paternal government as a duty. Finally, in the higher civilizations, a new principle makes headway, whereby the fabric of society comes to rest upon the good-will of the citizens and the social nature of man, while the claims of government are based upon the necessity of an ordered rule in the interests not only of social coöperation, but of individual freedom (pp. 364, 58, 66 f., 71 ff.). With this development in social organization, the development of law and justice keeps step. At first there is an entire lack of regular methods in enforcing justice. Then the blood-feud arises; rights are maintained and wrongs redressed by the parties interested or their kinfolk. From this stage we ascend by many gradations to the impartial justice of a public tribunal, investigating each case by a rational process, distinguishing crimes from civil wrongs, and limiting the responsibility for the wrong

to the individual perpetrator. The law grows up, as a rule, under the shadow of the principle of authority, and acts in the interests of external order rather than of personal rights; hence it is often administered with insufficient safeguards for the innocent and with cruel severity to the criminal. The next step is to remedy these defects by changes which aim at reforming the criminal and cutting off the sources of crime (pp. 364-365, 83, 84, 89 ff., 119 ff.). The institution of marriage passes through a somewhat analogous evolution. The natural family begins with a relatively loose organization, and passes into a state in which close-knit relations are obtained at the expense of the subjection of the wife. The aim of higher civilizations seems to be to reconcile the intimacy of the union with equal freedom for both parties. In the position of women, apart from the question of marriage, it is the idea of personality that becomes more and more prominent with progress (pp. 365 f., 176 f., 237 f.). As to the external relations of communities, it may be said that the line of advance is from group-morality to intertribal and international morality. In the earlier stages, the individual's obligations are limited to the group, members of other groups being indifferent or hostile. The hostility is directed towards individuals of the opposing community, not merely against the community as a corporate whole. A step onward is taken when warfare loses its personal character, and the result of victory, even if pushed to the point of annexation, is not to cancel the rights of the conquered or to punish them for attachment to their own side. Lastly, in this fuller recognition of a common humanity, we find the beginning of a more far-reaching conception of a law, and therefore, ultimately, of a society of nations, to which each independent state owes obedience (pp. 366, 279). As to internal relations, the primitive group is generally a society of equals. But in the earlier phases of social advance personal rights are apt to suffer deterioration. The growth of a large order and a firm authority is hostile at the outset to the maintenance of individual freedom and social equality. Ethical and religious progress tends to redress the balance, and the claims of personality reassert themselves piece-meal in the higher civilizations (pp. 366, 287, 291, 329 ff.). Turning to the rights of property and contract, we see the simple community of primitive peoples giving way to a system of free contract and individual ownership, from which the hampering restrictions of caste and feudal status gradually fall away. Individual energy and initiative are set free, but individual freedom again raises questions of social control (pp. 366-367, 362 f.).

To characterize the fundamental factors in the entire process of

evolution: A double movement marks the transition from the lower to the higher levels of civilized law and custom. The social order is strengthened and extended. Blood-feud yields to the reign of law; personal chieftainship to a regular government and an organized police. Instead of the small primitive group, we have nation-states, continental empires, great areas enjoying internal peace and owning a common law. On this side the human being becomes more and more subject to social restraints; his rights are perhaps fewer, but those rights are more secure. Order and liberty become for a time opposed; but this opposition is not essential, they draw together again in higher stages. The responsible human being, man or woman, is the center of modern ethics as of modern law, free to make his own life, bound by no restrictions of states nor even of nationality or race, answerable for his acts and those of no other, at liberty to make the best or worst of himself, to accept or decline relations with others. On the other hand, as this free individual breaks the shell of the older groupings, he comes into direct relations with the state as a whole, which succeeds to many of the rights and duties of the older groups. So far as rights and duties are conceived as attaching to human beings as such, they become universalized, and are therefore the care of society as a whole. Lastly, the universalism which the idea of personality holds within it cannot be satisfied with the limits of the nation-state; obligations apply to humanity as a whole. To realize humanity then, in the double sense of the term, is the sum of the whole process of evolution (pp. 367-368).

However, in order to understand ethical development, we must not only know what men are bidden to do by law and custom at each stage, but also the reasons which they themselves assign for doing it (Vol. I, p. 35). This task is attempted in the second volume, which deals with the following subjects: "The Early Phases of Thought" (pp. 1-49), "Ethical Conceptions in Early Thought" (pp. 50-84), "The World and the Spirit" (pp. 85-118), "Monotheism" (pp. 119-159), "Ethical Idealism" (pp. 160-178), "Philosophic Ethics" (pp. 179-206), "Modern Ethics" (pp. 207-257), "The Line of Ethical Development" (pp. 258-284).

Ethical conceptions are bound up with the development of thought in general, of ideas as to the nature and origin of things and the destinies of men. Hence, in order to understand them and their growth, it is necessary to understand the different ways of interpreting the world; and it is for this reason that Mr. Hobhouse traces for us the general evolution of thought, the religious and philosophical concep-

tions of mankind, and shows how this evolution is connected with moral progress. On the lowest stages there is difficulty in forming any conceptions at all, familiar categories are blurred and intermingled, there is an almost bewildering mass of confusions (Vol. II, pp. 20 ff., 264). This confusion is the intellectual basis of animism and magic. The spirit of animism is a rudely formed conception, the function of which is to account for the processes of life and death, growth and decay. On a higher stage the world of ideas begins to be purged of these confusions; persons now are persons, functions functions, relations relations (pp. 264-265). The savage invents beings which are not mere spirits behind the objects that surround him, but genuine mythical creations; they play a part in the theory of the world, explaining the origin of customs, and sometimes accounting for the creation of man and the world itself (pp. 31 ff.). We pass from spirits to gods, from animism to polytheism. In the world of thought dominated by magic, animism or polytheism, we note two fairly distinct stages of ethical development. In the lower, the force behind custom is the fear of magical influences or of revengeful spirits, neither of which is essentially ethical. The magical taboo may be held to embody what we call moral feelings, but it implies no clear recognition of the distinctive nature of morality. A step in advance is taken when spiritual agencies arise which take an interest in certain moral acts as such. In this way certain departments of action are marked out in which a distinctly religious sanction is found for certain rules of conduct, and this idea is generalized in proportion as the avenging deities become the ministers and possibly the attributes of some, or, it may be, of one of the greater gods, who thus comes to be an upholder of the moral order as a whole. Such a god will be a judge of men who rewards and punishes in accordance with an impartial law. Unfortunately, the conception of judgment is too often associated with means of appeasing divine wrath, in which very primitive and non-moral conceptions are wont to survive. Bearing these limitations in mind, we may nevertheless recognize that morality is here based upon a partially moralized religion (pp. 50 ff., 71 ff., 269 f.).

Image-making develops into thinking, picture ideas are transformed into definite or abstract conceptions, and we reach the philosophical or spiritual religions, the eastern representatives of which are the creed of Zoroaster, Brahmanism, Buddhism, Taoism (pp. 85-118). The awakening reason endeavors to render an articulate account of the universe, of the world-process as a whole, of man's place therein and

the duties which it imposes upon him. The conceptual religions rise above mere imagery and handle categories as distinct objects of thought. The spiritual draws itself together and is presented in antithesis to the sensual and earthly, as the source of all light within man and without (pp. 85 ff., 265-266). With the conception of spirituality a distinct set of ethical conceptions is connected. The individual must subdue the senses and all things that make for his own self-assertion and hinder his perfect communion with the spiritual world. Pride must give place to humility, resentment to forgiveness, the narrow love of kinship to universal benevolence, family life to the selfless, impersonal brotherhood of monasticism (pp. 87-88). To cultivate the best within himself and to aid others in the same work are the means of man's salvation. The socially constructive qualities, we see, are distinguished and idealized, but in the very act and fact of being so idealized, their usefulness in organizing society is in a large measure annulled. They are conceived as being best cultivated apart from ordinary human ties, and as the foundation of a monastic brotherhood rather than of a living human society. Self-negation is made more prominent than active kindness and love. Universal benevolence is held incompatible with the passionate love of woman and child. The practice of ideal virtues seems too hard for the householder and the man of affairs. Those very qualities which should refine the world are thought to be soiled by the world. Self-surrender and universal love—the two pillars of higher ethics—are set up, but they are left standing in a void (pp. 117 ff., 271-273).

To the Western world spiritual religion is familiar mainly in the form of monotheism, and this our author takes up next, studying its development in Judaism, Mohammedanism, and Christian theology. In its fuller development it teaches: There is one, personal, infinite, eternal God, the source and sustainer of all that is. God is pure spirit, and the spiritual is the comprehensive expression for the highest and best that is known to man. It is defined negatively by opposition to the earthly, positively by the exaltation of morality into perfect purity of heart. God is spirit and his communion with man must be spiritual; his worship is spiritual, and forms and ceremonies are naught without the inward and spiritual grace given unto us in them. What must win God is the genuine turning of the heart to him, a faith in him, which is also in the highest monotheism a love for him, from whom flows love to man. Though man's corruption separates him from God, yet with a mercy equal to his justice God has provided means for man's forgiveness and salvation (pp. 127 f.). This conception

of God gave rise to theoretical difficulties, to meet which dogmas were developed, and these dogmas had their influence upon ethics. Among the problems examined and discussed in this connection are the problems of evil, free will, determinism, responsibility of God and man, sin and atonement, faith and works (pp. 128-145).

According to Mr. Hobhouse, ethical monotheism has to a certain extent failed in its intention. In applying its principles to life, Christianity has moved between two poles of difficulty. To elaborate a system of rewards and punishments is to run the risk of degrading morals into a form of spiritual calculation; to declare that conduct follows truly and naturally from the convinced faith of a Christian tends to degrade the ethical side of religion to a secondary place. Neither Protestantism nor the Roman Church advanced to the ethical position that it is the good man through his goodness who is nearest to God. They were both too intent on the doctrine of exclusive salvation and could see no good outside their respective bodies. Not being willing to surrender the conception of the Deity as an omnipotent Creator standing outside his world, the theologians have been compelled under whatever disguises to impute to him its evil along with its goodness. To explain the history of Christ, they have maintained, with whatever refinements, the doctrine of transferable merit, and in magnifying faith they have made true loveliness and beauty of character secondary in God's eyes (pp. 146 f.).

As to the moral standard, the author declares, Christianity carries one side of ethics to the highest pitch of perfection, but it leaves another side comparatively neglected. "The conception of the brotherhood of love, based on the negation of self, is demonstrably inadequate to the problem of reorganizing society and intelligently directing human efforts. Even on the personal side it is deficient, for human progress depends on the growth and perfecting of faculty, and therefore requires that provision be made for a self-development which is not selfishness, but builds up a better personality on a basis of self-repression. Equally on the social side the ideal of loving self-surrender is beautiful, but not always right. . . . Nor does true love mean brotherly kindness and a diffused benevolence alone, but legitimately includes the whole gamut of human passions, and a working ethical system must not suppress but supply a place for these" (pp. 155 ff., 272 f.). Fortunately for the Western world supernaturalism was but one side of Christianity. It is in the simple personal following of Christ that the strength of Christianity will always lie, not in the mazes of dogmatic theology, nor in the pomp of ceremonial, nor even in the fervor of the preacher or the enthusiasm of the mystic.

But there are, besides these religious forms, more independent modes of ethical thinking, and we find them first employed between the sixth and fourth centuries B.C., in China by Confucius and Mencius (pp. 161-178), and in Greece by the philosophers. The Chinese thinkers, however, were moral teachers rather than philosophers, and we may therefore say that moral philosophy begins its course with the Greeks. The ethical consciousness begins to examine the conditions which have hitherto determined its growth and inquires into their why and wherefore. What is the Good, the end of human life, the aim which a thinking being should set before himself as the goal of his existence? This is part of a movement which extends far beyond the sphere of ethics, and attacks the very foundations of knowledge and belief. The structural categories underlying all experience have been brought clearly before consciousness and utilized in the construction of a philosophy of things; now they are themselves subjected to criticism. Thought seeks to determine its own value as a measure of reality (pp. 179 ff., 267 ff.). The reconstruction of reality on the basis of a criticism of first principles was first seriously taken in hand by the Greeks. It was found to be no less necessary in the region of conduct than in the field of knowledge. The progress made along these lines in ethics by thinkers like Socrates, Plato, Aristotle, and the Stoics is outlined by the author from pages 179 to 205.

Two great contributions were made by Greek ethics (pp. 205 ff., 273 ff.). In its earlier stage it founded moral obligation on the well-being of the individual. It taught that virtue was not an emptying but a fulfilment of the personality. It reconciled individual self-development with legal, law-abiding citizenship in a free city-state. In its later stages, when the old civic life was breaking up and the problem taking new shape, it laid the foundation of a universalistic ethics by conceiving a standard of conduct applicable to all mankind. In neither of these directions, however, was the analysis of the Greek thinkers final; it had behind it too little spiritual and social experience (pp. 205 ff., 276). The Greek solution was too simple for the moderns; for them the conflict between law and conscience, public authority and private judgment, was too acute. The Greek antithesis between real and apparent good, the choice respectively of reason and desire, deepens into the opposition of duty and interest. Morality presents itself as a law imposed upon human nature, which compels by authority rather than appeals by inherent attractiveness. Duty and self-sacrifice become central conceptions of ethical theory. But conduct cannot have moral worth unless it is unconstrained. Hence the sanction of this law had

to be found in human nature itself, even in a sense within the nature of each individual (pp. 207 ff.). Moreover, the requirements of the self are heightened and deepened as the antithesis between spiritual life and the bodily is more keenly felt. The notion of the social order, too, is fundamentally changed by the decay of the city-state and the rise of world empires and world religions. Modern thought seeks to analyze personality, reduces happiness to terms of conscious experience, takes to pieces the idea of the natural, and seeks to reconstruct it in terms of the elements of order or connectedness of experience. It likewise reduces the social conceptions to their ultimate elements, and attempts to reconstruct the social order on the basis of such an analysis (pp. 249 ff.).

Mr. Hobhouse shows how the modern systems attempt to solve these problems (pp. 211-215), and outlines the solution to which the course of thought seems to point: Thought is rational in so far as it is a system of coherent and consistent judgments, and this internal cohesion is itself the ground and meaning of its validity. For conduct there is a rational and objectively valid order in so far as there is a similarly coherent scheme of moral judgments. The postulate of rational ethics, then, is that such a coherent body of ethical judgments is to be found. The idea underlying all ethical thought, and giving coherence to it, may be expressed in the form of the doctrine that each man is a member of a spiritual whole to which he owes service. If obligation is rationally justified, man is bound by spiritual ties to a community with a life and purpose of its own. But the tie is not such as to destroy his separate personality, but rather such that, like love, it maintains the distinctness of the persons whom it binds together, and hence, though the whole to which he belongs may be called a spiritual whole, it is only by metaphor a self or person. More strictly, it should be a spiritual whole, in the true conception of which personality is a subordinate element. Here the term 'super-personal', employed by some idealists, points in the right direction (pp. 215-223).

If this conclusion is correct, the problem of finding the principles of a rational moral order consists in formulating the nature and supreme purposes of the whole to which man belongs. Neither the theory of 'natural law' and natural rights (pp. 223-230) nor Utilitarianism (pp. 230-233) has succeeded in solving the problem. The solution is to be sought along the lines marked out by Comte and Hegel; the conception of a self-directing humanity lies at the basis of a scientific ethics. In modern thought the principle of human development, under whatever name, becomes in a sense the

pivot upon which ethical conceptions turn. The effect of this principle once recognized is a Copernican change of attitude. Hitherto human conduct has been conceived as bound by law, first divine law, then natural law. But if the humanitarian principle is correct, man is not made for the law, but the law for humanity. Instead of religion being the basis for ethics, ethics becomes the test to which religion must submit. As with religions, so with social institutions. These institutions have grown up in rough accordance with the circumstances of social life, but they have no value or validity except in so far as they subserve human needs. But they are not to be set aside when they happen to be inconvenient, as the doctrine of expediency suggests, not only because in the long run nothing is so inexpedient as the practice of unsettling society, but also because the rights and duties recognized by the ordinary consciousness, when viewed genetically, are seen to have arisen in response to social needs, and to contain elements, however roughly put, of ethical truth. Humanitarianism has touched every department of practical morals,—class and social divisions, the position of women, the law of marriage, the criminal law, the law of war, the rights and duties of states, the claims of nationality, the right of property, the law of contract, the rights of association and of citizenship, the equality of religions. It has justified the Christian ethics on its positive side. Finally, nothing is more certain, if the rationalist doctrine is true, than that the doctrine itself will grow, and, as growth implies, will change; and because such changes are to be expected, any attempt to define their outcome must be valueless (pp. 233–257, 274 ff.).

The further development of society will follow a very different course from its past history; it is destined to fall within the scope of an organizing intelligence and to be removed from the play of blind force to the sphere of rational order. We do not know what new shapes the evolution will take, but it is something to learn that the slowly wrought-out dominance of mind is the central fact of evolution. "If this is true, it is the germ of a religion and an ethics which are as far removed from materialism as from the optimistic teleology of the metaphysician or the half naïve creeds of the churches. It gives a meaning to human effort as neither the pawn of an overruling Providence nor the sport of blind force. It is a message of hope to the world, of suffering lessened and strife assuaged, not by fleeing from reason to the bosom of faith, but by the increasing rational control of things by that collective wisdom, the *εἰς ξυνοῦς λόγος* which is all that men directly know of the divine" (pp. 278–284).

Mr. Hobhouse has produced a very able work, one of the best of its kind that has appeared in many years. It is a careful, interesting, and instructive presentation of the subject, giving evidence of wide reading and characterized by intelligent judgment. It not only gives us facts, but attempts to see a meaning in them; it not only theorizes about the course of ethical progress, but bases its conclusions upon human experiences. Some of the writers on comparative ethics, warned to beware of metaphysics, have failed to see the forest for the trees; and many of them have lacked the philosophical training necessary to make anything out of the vast material at hand. Mr. Hobhouse has presented us with a study of the history of morals that is not a mere collection of customs and beliefs, but a philosophical interpretation of the ethical experience of mankind.

To be sure, in a discussion covering so broad and rich a field, there will be many points here and there to which the student may take exception. The task of synthesis in a case like this is no easy one, and the ways of interpreting life are many. Where so much is hypothetical, where even the facts themselves which form the ground-work for theory are often in doubt, when the mind attempts to make for itself a picture of the beginnings of things, which are always shrouded in darkness, there is bound to be diversity of opinion. Still it seems to me that the author's general conception of moral progress is correct, and that it moves in the direction of a growing self-consciousness of the human spirit; that an increasing purpose runs through the ages. Two points, however, call for remark. It is not always quite clear how the spirit of humanity is to be conceived, whether as a metaphysical entity like Hegel's 'Reason' or Wundt's 'Universal Will,' or, more concretely, as the mind of individual human beings. It is "not indeed a Being outside and over above men and women, but a Being that is the best of them" (Vol. II, p. 238). The spiritual whole is "only by metaphor a self or person" (p. 223). At the same time, "humanity is not merely a community existing as part of a Kosmos. It is something — a spirit or an organism according to whatever inadequate metaphor we choose for its designation — which has come into being," etc. (p. 251). In all probability "conscious life depends, not on a process in any one cell in the brain, but in multitudinous processes carried on simultaneously in cells that lie far apart in the cerebral mass. Yet consciousness is one. So the Mind of Humanity is the unity in process of formation of multitudinous minds of men. To call it 'mind' may be metaphorical and inadequate. But to call it a real agency is, I think, literal prose" (see note 2, p. 238). The term

'super-personal,' employed by some idealists for the spiritual whole, points in the right direction (note 1, p. 223). Perhaps the confusion is of my own making, perhaps I am too much influenced by the note on page 238, but Mr. Hobhouse leaves me in doubt as to his meaning here. Perhaps he is not so "far removed from the optimistic teleology of the metaphysician" as he thinks. But if it is the spirit of humanity, in this sense, that is shaping our ends and making for righteousness in the world, how shall we explain to ourselves the relation existing between the different personalities and this spirit, and how get rid of the problems which confronted the spiritual religions?

Mr. Hobhouse also seems to me to lay too much emphasis on the rationalistic element. "The ethical order being thus interpreted," he states, "the claims of duty are urged on the ground that when we thoroughly understand its nature and all its bearings on our life and that of humanity, we are compelled as rational beings to recognize its validity, and admit that the ends to which it points are wider and greater than any private good of our own that may conflict with it. Thus for rationalism the moral basis lies in the unfolding of the full meaning of the moral order, as that through which the human spirit grows" (p. 274). It is not merely as 'rational' beings that we do this, unless we include in the term 'rational' the emotional and conative sides of our nature. Reason demands that we recognize the validity of the claims of duty, provided that we accept the ends to which the ethical order points, provided that we *believe* in them, that we will them, that they are 'goods' for us. And this is after all what Mr. Hobhouse himself means when he says: "Obligation, then, rests on the altruism of which the love-relation is the perfect type, which presents itself as duty when our natures are imperfectly formed by it, and is justified by reason because its aims alone give harmonious and coherent meaning to our practical efforts and our conception of the good. To conform to it, is to rise above considerations of personal happiness and to come into relation to the whole" (p. 222).

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An Outline of the Idealistic Construction of Experience. By J. B. BAILLIE. London, Macmillan & Co.; New York, The Macmillan Co., 1906. — pp. xx, 344.

The plan and scope of the present volume are partly explained by the fact that it consists of the substance of the Shaw Fellowship Lectures, delivered at Edinburgh University during the winter session of

1904-5, published in a revised and extended form. The author states in his preface that Chapters ii-vi "contain the substance" of the lectures, while the remaining four chapters, as the reader will see at a glance, merely develop the argument further in the interest of systematic completeness. As the title of the volume might suggest, — at any rate to one at all acquainted with the author's earlier book, *The Origin and Significance of Hegel's Logic* (1901), — the general purpose is to expound the essential principles of British Neo-Hegelianism in fairly systematic fashion and with reference to the present problems of philosophy. Professor Baillie says: "It is hoped that this attempt at a constructive exposition of the idealistic principle will, in spite of the many imperfections of which the author is very well aware, prove of some value to students of philosophy, and of some assistance to those who have felt with Green that the work of the great idealists must 'all be done over again'" (p. ix).

The quotation from Green, however, in this connection, might raise false expectations on the part of the reader. Green himself and other British Neo-Hegelians of his own generation, as well as certain writers of the present day like Professor Bosanquet, have really 'done over again' the work of German Idealism in quite the literal sense of the words. This is by no means to suggest that their own work is definitive, or even that they have in all respects improved upon their predecessors; but they certainly have been important contributors to philosophy on their own account, and not merely expounders and critics of the work of others. Hence the inevitable question, frequently discussed, as to the historical justification of certain of their characteristic interpretations of Kant and Hegel. Now Professor Baillie, instead of attempting, in anything like thoroughgoing fashion, to carry still further what we may fairly call the traditional Neo-Hegelian reconstruction of Idealism, seems rather to represent a distinctly conservative tendency. While agreeing in essential respects with his Neo-Hegelian predecessors (except for what seems at times an excess of conservatism), and fully availing himself of the results of their constructive work, he tends constantly to hark back to the historical Hegel, — though by no means 'back to Kant,' of whose dualistic assumptions his criticism, though generally convincing, is perhaps too persistent and unsparing. In a longer work this might be interesting and helpful, if only as an aid to orientation; but, while one constantly recognizes the author's scholarship and firm grasp of essential principles, one is often disappointed and finally irritated by the almost literal reproduction of Hegelian formulas, when philosophical

problems of the greatest importance are being treated in a necessarily brief and rather summary way.

After his general introduction, Professor Baillie proceeds to discuss "Dualism and the New Problem." The title of this chapter gives the key-note of the whole argument: the hopelessness of dualism in any form and the complete sufficiency of the Hegelian synthesis. The 'new problem,' throughout the volume, is the Hegelian problem, and the 'new' answer is essentially that of Hegel, — a terminology which even the sympathetic critic will feel to be unfortunate. But, if not new, both problem and solution are far from being superannuated. We need only expect to have it made plain by the exponent of Idealism that our recent problems, — some of them very insistent ones, — are inseparably connected with the traditional idealistic problem, and that the answers which we seek are to be found in the further development of idealistic philosophy. It is just here, however, that the book seems to the reviewer least satisfactory. Recent problems are, indeed, mentioned casually from time to time, and in a way to show that their significance is more or less appreciated; but there is a fatal tendency to offer solutions that, helpful as they might be in other connections, are not adequate solutions of *our* problems or wholly relevant to recent discussions.

But one important consideration should not be overlooked. Professor Baillie shows, with admirable clearness, that dualism is dualism wherever we find it; that Kant's difficulties with regard to the problem of knowledge were, after all, similar in many respects to those of Locke; and that recent philosophical writers who fail to profit by the unhappy experiences of the dualists of the past must not expect to escape a similar fate. All this is admirable; but, one must add, the task of synthesis is always concrete, the particular problems to be solved are always changing, so that no mere rehearsal of the program of the philosophy of the past can maintain its position as the adequate philosophy of the present. In fact, continuous readjustment and tentative synthesis, — in response to present needs, and in the light of the inspiring but also sobering lessons of the past, — are the very life of reason. If our problems were definitively solved, they would cease to exist.

Chapters iii and iv, "Truth and Experience" and "Plan and Stages of the Argument," are also introductory, and largely consist in further emphasizing the dualistic character of Kant's assumptions and method, and developing in contrast the fundamental principles of Hegel's philosophy. While in themselves comparing favorably with

some of the other chapters of the book, they contain so little that is new, unless in form of statement, that the reader is almost bound to tire of so much in the way of introduction, particularly if he has looked ahead and come to realize that what would naturally form the body of the book is as compressed as the introductory portion is extended.

The remaining chapters reproducing the substance of the Shaw Fellowship Lectures are Chapter v, "The Interpretation of Sense Experience: and of Perceptual Experience," and Chapter vi, "Understanding and the World of Noumena and Phenomena." These chapters are a competent and often suggestive statement of the traditional idealistic position, though less satisfactory than they would have been, if more attention had been paid to the bearing of the principles involved upon recent discussions. Even such a problem as that of the philosophical significance of the methodological assumptions of the particular sciences, is neglected, though a reasonable amount of attention to this and kindred problems would have done much to make the treatment concrete and helpful. Again, perception and knowledge are certainly kept too long apart, — so long, indeed, that one is often far from clear as to what is meant by perception; and, when the function of the Understanding, on its objective side, finally comes under discussion, Hegel's conception of 'force' (*Kraft*) is employed in a way to obscure, rather than to clarify, the real problem (pp. 185 ff.). Professor Baillie says, for example: "Force is merely the general form of unity of the objective world as presented to Understanding" (p. 191). And again: "Force and its 'expression' when developed take the form of laws 'constituting' the objective world and controlling their detailed content" (*ibid.*, note). Of course the problems of philosophy are not identical with those of science; but the progressive elimination of 'force,' in the ontological sense, from recent physical science is a matter that philosophy must take serious account of, and, when this is done, it is safe to say that laws will no longer be spoken of as 'constituting the objective world' and 'controlling' its 'detailed content.'

In passing to Chapter vii, "Self-conscious Experience," we take leave of the lectures, and, in a sense, make a new start. Hitherto we have taken account of the cognitive side of experience only; now, in somewhat belated fashion, we are led to consider the significance of desire for a self-conscious being. The method of treatment is, for the most part, essentially that of orthodox Neo-Hegelianism; but, largely owing to the advanced stage of the general argument at this point, it is made to appear too much as if desire in itself were an organizing

principle, capable of carrying us beyond the standpoint of the Understanding. For example, the author says: "Here we have no longer a world of Understanding, with its distinction of elements into phenomena and noumena. . . . Such a distinction must disappear in Desire. . . . There is no longer any contrast between 'inner' and 'outer' when the self is all in all to itself, is consciously [*sic*] the beginning and the end of its experience. . . . In Desire, then, self is the beginning and the end of the process; consciousness of objects is self-consciousness; the subjective and the objective side of experience are consciously one" (pp. 219-221). The constant, though somewhat vague, reference to the self will hardly keep the reader from suspecting that, according to this explanation, Feeling on its own account can bring together what Understanding and Reason have sundered. It is needless to say that this cannot be the author's real meaning, if he is at all consistent in the use of his own first principles; but the serious confusion of statement illustrates the danger of discussing desire in the abstract, or desire in its higher manifestations, without patiently analyzing, as Green did, the lower stages of the process, and showing how slowly and painfully this unity of the higher life of desire is achieved.

Chapter viii deals with "The Sphere of Reason — Scientific Experience." Here, again, Professor Baillie is at pains to warn the reader against the dualistic assumptions of Kant, which find their issue in his sharp distinction between Understanding and Reason. Even our assumption of the intelligibility of the external world involves more than merely mechanical postulates. Properly speaking, the sphere of Reason is "the region of conceptual coherence and demonstration" (p. 257); only from this point of view can philosophy claim a scientific character. Professor Baillie prefers to attribute the categories of science and philosophy to Reason rather than to Understanding. And he very pertinently says: "The Categories are not limited to a certain formal and arbitrary number; the Categories are indefinite in number, are, if we choose, endless in number, for Reason is not to be exhausted in *any* detail of experience. The Categories, again, are not to be *deduced* by showing that experience is impossible without their *use* and application; they are *derived* from the unity of Reason, evolved from it *in and through its activity in experience*" (p. 268).

The remaining chapters, ix, "The Sphere of Finite Spirit — Moral Experience," and x, "The Sphere of Absolute Spirit — Religious Experience — Contemplation," seem to the reviewer the least satis-

factory in the book. This refers to the extremely abstract and schematic treatment of these most concrete aspects of our experience, rather than to the position taken by the author, which is merely that of conservative Neo-Hegelianism. It is a pity that an ethical method which still has so much to say for itself, and the value of which largely consists in the help it gives one in taking a concrete view of the moral life, should be expounded in such perversely abstract and technical fashion. And, as too often happens in such cases, the author's ingenuity has been exhausted on the technical phraseology; the facts of the moral life taken account of are few and only too familiar. Of course, facts collected on no particular principle are almost useless, and, when carelessly interpreted, worse than useless; but it is to be hoped that the recent labors of investigators as competent as Dr. Westermarck and Mr. Hobhouse,— which ought to prove as significant for idealists as for others, — will help to put these abstract constructions of moral and religious experience permanently out of fashion.

It may seem ungracious to criticise an author for not doing what, apparently, he has not seriously attempted to do. Nobody can read these lectures, and the four chapters that form their continuation and conclusion, without recognizing in Professor Baillie a very competent exponent of the principles of Neo-Hegelianism, as they appeal to a conservative mind. There is remarkably little uncertainty of touch or writing himself clear. The book is as accurate, in nearly all essential respects, as it is dry and colorless; and it is really helpful in assisting one to think out again the idealistic problem and its solution. But it fails exactly where Mr. Haldane's Gifford Lectures (1902-4) were so preëminently successful,— in impressing the reader with the very important bearing of modern idealism upon the most recent problems of science and philosophy, as well as upon the more practical, but not less perplexing, problems of modern life.

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Harvard Psychological Studies. Edited by HUGO MÜNSTERBERG.
Vol. II. Boston and New York, Houghton, Mifflin, & Co., 1906.
— pp. 644.

This volume represents a large part of the output of the Harvard laboratory during the last four years. There are in addition five articles appropriate to the opening of the new laboratory in Emerson Hall,— three descriptive of the laboratory and its work, past and present, and two addresses by Professor Münsterberg delivered on the occasion of

the dedication, "The Place of Experimental Psychology," and "Emerson as Philosopher." The contributions comprise twenty-three studies on subjects ranging from visual sensations, through feeling and attention, to animal psychology. They are naturally of very unequal length and importance. The most that can be done in a review of any brevity is to mention the results of the more important investigations and refer the reader to the original for details.

The first of the optical studies, by G. V. Hamilton, entitled "Stereoscopic Vision," shows that there are certain lateral positions of the eyes in which we have a difference in the retinal images with no corresponding difference in depth of the resulting single objects. The result is regarded as proof that the images must call out movements or tendencies to movement if there is to be any perception of space, and that the distance perceived must depend upon the motor rather than the sensory phase of the process, a triumph for the *Aktionstheorie*. One wonders, however, whether knowledge of the position of the eyes may not enter in this case to check the ordinary interpretation of the double images, — whether this is not an exception to the general rule that proves it rather than a disproof of the ordinary theory. An early experiment of Helmholtz seems to have been overlooked.

Professor Holt contributes two related papers, "Eye-movements during Dizziness," and "Perception during Eye-movements." He obtains very satisfactory photographic records of the movements of the eyes, which indicate that, instead of the slow movement in the direction opposed to rotation and rapid return movement during rotation, there is, after rotation is over, a slow movement in the direction of rotation and rapid movements in the opposite direction. In the following paper he connects the fact that there is no vision during the rapid return movement with a cortical inhibition of perception, an inhibition that is observed in other cases during the voluntary eye-movement, instead of making it depend upon any increased difficulty in vision due to the rate of the movement. Mr. Boswell contributes an interesting study of the various kinds of visual irradiation in its effects upon the perception of stationary and moving objects.

"The Expression of the Feelings," by F. M. Urban, is very largely a study of the cause of diastole of the pulse from the records in the literature, with some theoretical speculations on more general topics.

J. A. H. Keith, in "The Mutual Influence of Feelings," concludes that the feelings induced by different senses ordinarily influence each other. A stricter interpretation of his results, however, would be that the feeling that results from several sensations is ordinarily due in

some measure to each, rather than to any one alone. Very much the same results were reached by Professor Johnston ("The Combination of Feelings"), and the same comment is to be passed. The results are also interpreted in terms of the *Aktionstheorie*.

Miss Rowland's "Æsthetics of Repeated Space Forms," gives a large number of positive results, obtained both experimentally and by a study of architectural applications. The results are, in fact, too numerous and varied to be summarized within the space at command. This section on feeling ends with a study of the feeling-value of unmusical tone-intervals by Dr. Emerson. His most important result is that certain of the unmusical intervals exceed the musical in their affective value.

The next paper, "Certainty and Attention," by Frances H. Rousmaniere, comes to no very definite conclusions. There are individual differences in certainty, and certainty is no greater for things attended to than for objects in the fringe. The two following short papers, "Inhibition and Reinforcement," by Louis A. Turley, and "The Interference of Optical Stimuli," by H. Kleinknecht, work out further details of Ranschburg's observations on the influence of identical and similar members in a series of elements to be remembered.

Longer and more important is the study by Professor Haynes, "Subjective and Objective Simultaneity." He attempts to bring the results of the complication experiments into harmony with the fact of the distribution of attention. The temporal displacement of stimuli would be explained by the incapacity to attend to two things at a time. The attempt at confirmation by testing the degree to which simultaneous judgments of a single object disturb one another, does not show interference enough to warrant the conclusion in the author's own mind. If, however, he had seen Hylan's results, the reason would have been obvious to him. The simultaneous judgments are undoubtedly not really simultaneous, but are successive, made on the basis of the memory after-image. It is just this necessity for successive appreciation that gives rise to the temporal displacement of disparate stimuli.

The "Estimation of Number," by Dr. C. T. Burnett, shows that estimation of large numbers (from twenty to a hundred) depends primarily upon the spatial arrangement and upon the time of exposure. Compact elements seem less numerous than scattered, and short exposures increase the number, as compared with longer, in approximately inverse ratio. "Time-Estimation," by Drs. Yerkes and Urban, confirms the sex difference noted by MacDougall. Women,

as a rule, underestimate a second, overestimate durations from 18 to 108 seconds, while men make the opposed errors. The explanation of the difference is promised in a later paper. Estimation of time was found to depend very largely upon the filling.

Of the two papers on association, "Association under the Influence of Different Ideas," by Bird T. Baldwin, shows primarily that the last of a series of stimuli is predominant in the determination of the course of association, although occasionally the stimuli fuse in their influence. "Dissociation," by C. H. Toll, is a preliminary report on the relative importance of association by contiguity and by similarity.

The two motor papers offer results too detailed to be generalized in our space, and the reader must be referred to the originals.

Most evenly satisfactory are the contributions to comparative psychology. Dr. Yerkes summarizes the results of a large number of separate investigations, published previously, in the "Mutual Relations of Stimuli in the Frog." He demonstrates the presence of reënforcement and inhibition between different stimuli in the frog, and shows that they have much the same temporal relations as in man. In the "Temporal Relations of Neural Processes," Dr. Yerkes shows that the reaction times of a frog fall into three groups that are correlated with reflex, instinctive, and voluntary acts; and he argues that the reaction time may be made an important subsidiary criterion of the presence of consciousness. The "Mental Life of the Domestic Pigeon," by John E. Rouse, adds this to the list of animals of whose mental life we have a fairly complete picture. The results are to put the pigeon below the English sparrow and most mammals. It learns fairly complicated reactions by trial and error, shows no sign of imitation, and, when formed, the associations persist unchanged for "at least six weeks." Records of respiration were also used to test the sensitiveness of the bird to various stimuli. The concluding paper, "The Reactions of the Cray-fish," shows that the cray-fish is somewhat negatively phototactic, is sensitive to different colors, positively geotactic, negatively barotactic, and in strong measure positively thigmotactic.

It is impossible to refrain from congratulating Professor Münsterberg upon the strong impression he makes upon his students, and the degree in which they become ardent supporters of his theories. The *Aktionstheorie* in particular is confirmed by every investigation that can be given a motor turn, and these constitute the majority of the contributions. It is to be hoped that the new laboratory, with its increased facilities, will prove even more fruitful than the old. Much would be

added to the value of the work, however, if some means could be found of publishing at more frequent intervals. In the present volume there are several studies, evidently completed several years ago, that would have greatly aided later work, earlier published, had they only been available.

W. B. PILLSBURY.

UNIVERSITY OF MICHIGAN.

NOTICES OF NEW BOOKS.

Platon. Par CLODIUS PIAT. Paris, Félix Alcan, 1906. — pp. 382.

This volume belongs to the series, "Les Grands Philosophes," and bears in general the same character as preceding numbers. It consists of eight chapters: I, The Dialogues; II, Plato's Method; III, The Ideas; IV, Nature; V, God; VI, The Soul; VII, The Good; VIII, The State. M. Piat adds four tables of statistics and a bibliography, the former containing nothing new, the latter both incomplete and marred by almost countless errors.

One is at a loss to know why the book was written. It does not have in a marked degree the virtues of lucidity and charm which we naturally expect in the writings of the French, and it adds little to our knowledge of Plato. In the first chapter the views of Lutoslawski and Gomperz are set down in a brief *résumé*, except that the *Parmenides* is declared to be spurious. M. Piat lays much stress on the want of attestation prior to the catalogue of Thrasyllus, which he regards as open to suspicion; but he seems to approve the suggestion of M. Huit that the dialogue may have been written by a pupil of the academy and added to the canon of Plato, perhaps with the authorization of the master himself (p. 30, n. 2). This would seem to be rather inconsistent, not to use a stronger term.

The systematic presentation of Plato's thought is neither profound nor stimulating. The student of Plato will find this more satisfactorily done in his Zeller, with the advantage of learning what questions are open to controversy, if he does not prefer to follow the evolution of the philosopher's somewhat unsystematic thought in the dialogues themselves or in such analyses as are presented by Grote and Gomperz.

M. Piat's book will not bear comparison with the admirable accounts of Plato's philosophy lately published by Gomperz and Raeder.

W. A. HEIDEL.

WESLEYAN UNIVERSITY.

Rudolf Eucken's Philosophy of Life. By W. R. BOYCE-GIBSON. London, A. & C. Black, 1906. — pp. viii, 168.

This little volume, the chapters of which were originally lectures delivered before the University of London in 1905, has been published under the auspices of the Hibbert trustees. It might almost be regarded as the tribute of a disciple to his master, were it not that Mr. Boyce-Gibson is more attached to the doctrine than to its propounder. He states his conviction of its "vitality and fundamental soundness." Professor Eucken's teaching seems to him to offer the needed rallying-point for contemporary Idealism, and to be "the philosophy of the future, if the future proves worthy of it."

It is true that this attitude does not exclude certain important criticisms of Eucken's method and of some of his conclusions; but, as the author himself points out, this criticism is throughout sympathetic, and aims at exposition and development to a consistent conclusion rather than at close adherence to the actual form of the argument. He is doubtless correct in his opinion that this is by far the more valuable method to follow, particularly when the discussion of an author is necessarily confined within narrow limits. Its obvious dangers for the careless reader may be presumed to be overcome in this case by the explicit statement that it is the method of the book; those for the writer seem to have been for the most part successfully avoided. The fact that Professor Eucken personally revised the manuscript may serve as an assurance of substantial accuracy.

The most compact definition of Eucken's philosophy, according to Mr. Boyce-Gibson, is as a Christian Idealism, which finds its chief interests in history, ethics, and religion, and the organizing ideas of which are personality and freedom. Its method is teleological, in much the same sense that the dialectic of Hegel may be so termed. But in this case analysis always involves the connection of all the elements of a problem with the personal ethical attitude for which it arises, and is followed by a synthesis which is based on the development of this underlying personal ideal, so to say, to its highest possible power. This development of an ideal from within, by revealing its essential limitations and contradictions, indicates the necessity of pressing on to a higher systematization of experience, and becomes an immanent dialectic. This dialectic, however, is never merely reflective, for the transition from any one stage to the next higher is always a free ethical act, and involves a *negation* of the lower stage which persists throughout the whole process. Every "spiritual fact is either potentially or actually a spiritual opposition"; and the dualism of sense and thought which confronts the personal thinker and agent on the lower levels of his development remains with him, though in a changed form, on the very highest.

The major portion of the book is given up to an account of Eucken's system as he develops it by the application of this method to two great problems,—Personalism *vs.* Naturalism and Intellectualism, and Freedom *vs.* Necessity. The exposition is clear and readable throughout, though somewhat marred, especially in the earlier chapters, by an occasional looseness of style and construction which is pardonable in lectures, but should have been removed before printing. Not the least valuable portions of the book are the author's own critical emendations of Eucken's theory, particularly those concerned with the 'irrationalism' in which it culminates, and the abstract separation between the 'psychological' and the 'spiritual,' the 'existential' and the 'substantial,' with which it begins. He very properly points out that Eucken's own account of the knowledge-process, as immanent in the developing personal realization of spiritual truth, is inconsistent with his position that this realization at its highest stage, while personal, is 'irrational.' As for the other antithesis, here Eucken's over-

narrow conception of psychological method, as necessarily atomistic, and his neglect of the possibility of a more concrete and functional account of consciousness, has led him into unnecessary difficulties in relating his 'non-temporal' spiritual principle to its temporal manifestations.

It is to be regretted that the account of Eucken's views concerning the relation of man to God (pp. 102-103) is not fuller and more detailed. As it stands, it does not by any means make clear how he would assimilate these to his description of a *Vollthat*, as involving a synthesis which unites and transcends subjective activity and objective content, either of which is in itself incomplete, in a personal act of self-realization. In this case, the object is already spiritual and personal. The difficulty resulting for Professor Eucken's theory is sufficiently obvious; and, if the present writer may hazard a guess, it probably underlies that tendency towards 'absolutism' in his later works which Mr. Boyce-Gibson notices, and which he regards as only another return upon itself of the system's dialectic. It may also have emphasized Eucken's preference for an irrational test of truth in religious experience.

But whether or not we assent to the author's conclusions concerning the future influence of Eucken's philosophy, this statement of it should find many readers, as a very compact and useful *résumé* of the interesting and stimulating point of view.

EDMUND H. HOLLANDS.

CORNELL UNIVERSITY.

Some Problems of Existence. By NORMAN PEARSON. London, Edward Arnold; New York, Longmans, Green, & Co., 1907. — pp. viii, 168.

This little book sketches a philosophy of religion from the standpoint of theistic evolution. The questions discussed are such as "inevitably present themselves to anyone who seriously considers the problem of human existence." The postulates — or conclusions? — of the author's theory are: "(1) The existence of a Deity; (2) the immortality of man; (3) a Divine scheme of evolution of which we form part, and which, as expressing the purpose of the Deity, proceeds under the sway of an inflexible order" (p. 2). With these principles in hand, Mr. Pearson finds singularly facile answers to the questions of the mind. Chapters i-iv deal with the future life, human and animal, which is treated on the basis of the mind-stuff theory, accepted in its baldest form. Chapter v, "Spirit and Matter," argues to an ultimate monism, human minds and mind-stuff being on the way declared to possess extension. Chapters vi-viii advance a new analysis of morality, punishment, and sin, with special reference to the eschatological inquiries which engage the attention of the author throughout. Chapter ix maintains at once the truth of determinism and its compatibility with moral responsibility. Chapter xi explains the existence of evil by construing it as a result of the self-limitation of the Deity which serves an educational purpose in the evolution of the spirit.

More instructive than the author's conclusions are the spirit in which he has approached his subject and the intellectual weapons with which he attacks his task. Theistic belief, unbounded confidence in evolution of the physico-cosmical type, a dislike for "orthodox theology" greater than his comprehension of it, a lack of knowledge or lack of appreciation of the principle of values, despite his profound conviction that it is "worse than useless . . . to ignore the deeply seated instincts of mankind which make for religion" (p. 2), — these are salient features of Mr. Pearson's attitude toward the important matters he discusses, and these, or many of them, remind one also of the general spirit of English thinking in the recent past. The temper of our thought has been grave and earnest, in conformity with the problems with which we have been compelled to deal; but the progress through our difficulties, and beyond them, implies a broader set of principles than those which have been traditionally ours. And it is largely because of such inherited limitations that the present treatise has little of importance to offer to the philosophical student of to-day.

A. C. ARMSTRONG.

WESLEYAN UNIVERSITY.

L'organisation de la conscience morale: Esquisse d'un art moral positif.
Par JEAN DELVOLVE. Paris, F. Alcan, 1906. — pp. 172.

This little book represents a reaction against the tendency prevalent in France to identify ethics with sociology, and aims to construct upon a positivistic basis a system of rules for the organization of the individual moral consciousness. According to the author, ethics is not a science, but an art; an art not based upon a ready-made science, but upon our entire knowledge of the individual and social nature of man, upon physiology, psychology, and the social sciences. There already exist *objective* moral arts, like politics, whose purpose is, not to aid in the development of the individual conscience, but to act from without upon the habits and customs of a group or of an individual. Such arts, however, cannot pretend to take the place of the art of *internal* organization, which has always existed and which simply needs to be brought up to the present state of our knowledge. We cannot get along without such an art to-day. The abandonment of the principles of Christianity has left our consciences without the necessary rules of organization, and partially explains the present moral crisis.

The function, then, of an art of ethics, as conceived by Dr. Delvolve, is to furnish individuals with general formulæ for the organization of the moral consciousness. Taking the results of modern biology as his starting-point and guide, the author traces in outline the different forms of action which the individual ought to follow. His fundamental notion is that all moral history, — not only the history of humanity, but of all living nature, — consists in the progressive adaptation, differing according to the species and the individuals, of the same basal instincts. Hence the whole

business of individual consciousness, the specific faculty of human adaptation, is to re-establish in their true function the instincts which accident or ignorance has corrupted, and to direct harmoniously a moral nature, subject to rapid evolution, to new forms. Each of the primordial instincts ought to be studied in the diverse human forms into which it develops; and the relations of these forms to the primitive instinct and to each other should then be investigated. With the help of all the psychological and sociological knowledge at our disposal, as well as with the help of simple empirical observations of moral experience, the main deviations of which each tendency is susceptible should be studied, and the attempt made to discover the methods of developing harmoniously the different forms of human activity. This task Dr. Delvolve undertakes in Chapters iv-viii of his book, considering in turn: the instinct of preservation and growth; the instinct of reproduction; the social instinct; the activity of knowledge; and moral therapeutics.

FRANK THILLY.

CORNELL UNIVERSITY.

The Philosophy of Goethe's Faust. By THOMAS DAVIDSON. Edited by CHARLES M. BAKEWELL. Boston, Ginn & Company, 1906. — pp. 158.

A great drama, being a portrayal of life, can, like life itself, be looked at from many different points of view. This explains why there are almost as many interpretations of Goethe's *Faust* as there are interpreters. Each writer will read into the work his own *Weltanschauung*, and attempt to solve the riddle with his own favorite key. It is easy to find in *Faust*, particularly in the second part, which is full of mysticism and allegory, whatever the critic happens to be looking for and a great deal more than the poet himself has written into it. During Goethe's life-time attempts were even made to explain *Faust* by means of Hegelian concepts, although Goethe himself cared nothing at all for Hegel's philosophy. To be sure, no one can prove that the poet did not mean everything attributed to him by his interpreters, any more than any one can prove that the universe and life do not mean what the world-interpreters declare.

The creator of *Faust* would have viewed Mr. Davidson's efforts to read his mind, with the same cheerful tolerance with which he was accustomed to view all such attempts. Perhaps he would have recalled his own lines, which seem to fit the case in hand:

“Im Auslegen seid frisch und munter!
Legt ihr's nicht aus, so legt was unter.”

It would almost seem that Mr. Davidson had done his work as guide too thoroughly. He overloads his interpretations with meanings, he scents symbolism everywhere, and constructs a philosophy of *Faust* which, though interesting and instructive in itself, can hardly be proved to have been in the poet's mind. It is perhaps for this reason that he comes to look upon *Faust*, “taken as a whole, and regarded as the working out of a great

moral problem, as a distinct failure," "its conclusion as utterly lame, and in no sense the logical or even æsthetic outcome of the action of the play."

In spite of all this, however, Mr. Davidson's book is a suggestive study of the German *divina commedia*, as it has been called, and gives us glimpses into a vigorous and idealistic personality. It holds the reader's interest from beginning to end, and arouses in him a keen desire to take up his *Faust* again, which is, after all, the most important function of a book of this kind.

FRANK THILLY.

CORNELL UNIVERSITY.

Der Gottesbegriff bei Leibniz. Von ALBERT GÖRLAND (in *Philosophische Arbeiten*, herausg. von H. Cohen und P. Natorp). A. Töpelmann, Giessen, 1907. — pp. 103–240.

The general topics discussed by the author are indicated by the following titles of the five chapters: "God and Science," "God and Morality," "Possibility and Actuality," "The Empirical Character of the World and the Messianic Idea," and "The Proof of God." In the first is an exposition of Leibniz's doctrine that the 'eternal truths' are truths independently of the divine will, a doctrine which insures the independent validity of mathematics and legitimizes mechanical explanation in physics, and which implies that the difference between God and man is merely a difference in degree of perfection. The second sets forth Leibniz's conclusion that the knowledge of the Good possesses a similar independence, that morality has its immutable eternal truths as well as mathematics. Then follows, in the third chapter, a discussion of the connection between these eternal truths and concrete matters of fact. Considered abstractly, all physical necessity involves a hypothetical or contingent element. Its necessity finally bases itself upon a moral necessity, viz., the necessity which determines deity to select for realization the best of all possible worlds. This moral or volitional necessity is fundamentally different from physical necessity. But because the former is basal to the latter, we find, as is elaborated in the fourth chapter, that even in nature there is an adaptation to moral ends. Moral considerations may, however, require the postponement of punishments and rewards in the process of mechanical events. The atonement of an act is not necessarily an immediate consequent of the act itself; we can only affirm that it is bound up with the cosmic process in its entirety. And, in view of this, the 'best of all possible worlds' is construed to refer, not to a present or future *condition* of the universe, but to its organization, the kingdom of God being exhibited in the structure or 'spirit' of the present world. The proof of God's existence, discussed in the fifth chapter, has an *a priori* and an *a posteriori* character. The former is treated haltingly by Leibniz and in later years is declared insufficient; the latter bases itself upon the hypothesis of a preëstablished harmony. This hypothesis, however, is on occasion felt to require a line of proof which takes as its start-

ing-point the existence of God as an assured fact. This circle is contributory evidence that for Leibniz the foundation for the belief in God is moral in character, is a belief entertained for the sake of harmonizing the moral and physical orders. Hence the conclusion that "The Leibnizian *Gottes-idee* means a postulate of morality, the idea of a guarantee of a messianic kingdom of this world" (p. 178).

In treatment the work is expository rather than critical. The lucidity of style and arrangement is very commendable. As is indicated by the subtitle, *Ein Vorwort zu seinem System*, the booklet is intended mainly as a propædeutic to Leibniz, and the author expresses an intention to continue in future publications the discussion of the general topics here introduced. Of the one hundred and forty pages which are offered, nearly one half are taken up with citations from sources, arranged at the back so as not to interfere with the continuity of the presentation.

B. H. BODE.

UNIVERSITY OF WISCONSIN.

Wissenschaftliche Beilage zum achtzehnten Jahresbericht (1905) der philosophischen Gesellschaft an der Universität zu Wien. Leipzig, 1905, Verlag von Johann Ambrosius Barth. — pp. 87.

The present number of the *Beilage* contains five papers, with discussions, on philosophical and psychological topics, as follows: "Die stoische Lehre von Fatum und Freiheit" (15 pp.), by H. von Arnim, a painstaking exposition of the Stoic (Chrysippian) doctrine of freedom on the background of the Stoic metaphysics as a whole. Stoicism represents a reconciliation of causality and freedom in that decision between presentations which, as such, furnish the mere material for judgment and action. This decision belongs to the active power of the soul. The second paper, "Energetische Theorie des Glücks" (16 pp.), by W. Ostwald, undertakes an algebraic formulation of a pleasure theory on the basis of the amount of physical energy consciously employed in directions conformable or unconformable to the will. If G represents pleasure or happiness, E energy employed in desired directions, W energy employed in undesired directions, $(E + W)$ will be the total amount of energy consciously employed, $(E - W)$ the difference between the amount of energy employed in desirable directions and that employed in undesirable directions, with the resulting formula, $G = (E + W)(E - W)$ or $G = E^2 - W^2$. The third paper, "Über eine These Schopenhauers" (16 pp.), by L. Boltzmann, is a running criticism, in a care free mood, of Schopenhauer's philosophy, after which the author indicates his own view of the direction in which the most fruitful development of future philosophy will take place, and draws with a few bold and rapid strokes a complete philosophy of things in general, both terrestrial and celestial, on Darwinian lines of selection and transmission of effective forms and characteristics. There are two further papers, "Menschen- und Tiergehirn" (10 pp.),

by M. Benedikt, and "Über Raumvorstellung u. Raumbegriff" (9 pp.), by K. Siegel.

EMIL C. WILM.

WASHBURN COLLEGE.

Reason in Belief. By FRANK SEWALL. London, Elliot Stock, 1906.— pp. ix, 208.

In the words of the author, the purpose of this work is "to consider the underlying principles of the Christian faith in their rational aspect and so to bring to the view of the scientific mind of our time a system of rational Christianity." The argument employed in defense of the Christian system of doctrine is based upon Kant's discovery that "in mind and not in matter lies the creative framework of the world." Now Dr. Sewall's aim is a worthy one, and in defending an idealistic view of the world he does well to go back to Kant for support. But one who would convince the modern scientist by an appeal to an historic movement in philosophy should have a thorough knowledge of the history of philosophy and a firm grasp upon philosophic principles. Judged by the present work, the author falls short in both of these respects. As evidence of this, it is only necessary to refer to his chapter on "The Nature and Basis of Induction." The chapter is an achievement in error. Induction, we are informed, involves the 'contact' of two planes of being, mind and matter. To bridge the chasm between the two, we must assume as the primary condition of all induction that an external world of matter exists perfectly analogous to the world of consciousness. It is the Infinite Mind which guarantees the correspondence between the subjective and objective in human experience, and makes valid the mind's knowledge of an objective world. Every one of these positions has been discredited and exposed as fallacious in the development of modern epistemology. The interests of religion are not advanced when exploded philosophical theories are urged in behalf of religious doctrines.

H. W. WRIGHT.

LAKE FOREST COLLEGE.

The Religious Conception of the World. By ARTHUR KENYON ROGERS. New York, The Macmillan Co., 1907. — pp. 284.

All who are interested in the problems of religion will be grateful to Professor Rogers for this excellent volume. Often the best interests of religion are served by a destructive criticism of traditional tenets, but at present there is greater need of constructive works like this, in which the conclusions of modern philosophy and science are brought to bear upon the problems of religion with the object, not of further discrediting commonly-accepted beliefs, but of reestablishing them on firmer foundations. The author states it as his purpose "to defend a view of the world which is frankly religious and theistic." He believes that the philosopher who appears as defender of religion gains an important advantage in having the

support of the common religious experience of mankind. Something of the weight which attaches to religion as such belongs to that special form of it, Christianity, "which alone of the faiths of the world may be regarded as having shown itself to be in any considerable measure adequate to the needs of human life at the present day, at any rate in the western world." The peculiar message of Christianity may be summed up in undogmatic form in the phrase, 'the fatherhood of God and the brotherhood of man.' A certain conception of reality is implied here, and this Professor Rogers endeavors to justify philosophically.

Perhaps the strongest chapters in the book are those devoted to theism proper, — the proofs of God's existence, his relation to nature and to man. The author gives first place to the argument from design, which he believes has always been the most convincing of theistic proofs, not only among men engaged in practical pursuits, but with philosophers as well. While evolution has altered the form of this argument, it has not destroyed its force. The purpose attributed to the world is seen to be immanent and not external. But the meaning of the cosmic process is brought out for the first time in clear relief. When we survey the full sweep of the world's evolution from the primitive nebula to the appearance of human society and civilization, we cannot easily resign ourselves to the belief that the whole process is the product of blind haphazard forces. Indeed, the thinker of to-day is warranted in denying the existence of an independent world of matter. Contemporary science and philosophy are agreed that we know no reality apart from conscious experience. Since reality is known to us only through thought and sensation, we may suppose that its true nature is expressed in these terms, and that it is throughout a manifestation of intelligence. Following this line of thought, we are led to the further conclusion that the natural world represents the content of a larger life and conscious experience analogous to our own. It is not conceivable, however, that persons, like things, are included as elements in the all-embracing unitary consciousness of God. The ultimate category for conceiving the universe is not self-consciousness, but a society of selves. In this community one member, God, occupies an exceptional position, standing in some special way at the center of things, and being the inner reality of the world.

The problems of Freedom, Evil, and Immortality are discussed in the concluding chapters of the work. The treatment, though brief, is admirable. The author is thoroughly informed as to the theoretical bearings of these questions, and has an earnest appreciation of their practical significance. He displays through all his discussions a remarkable sanity of judgment, weighing carefully the merits of alternative hypotheses, and never adopting extreme or one-sided views. A less satisfactory part of the book is that dealing with the foundations and validity of knowledge. This subject is considered in the opening chapters, as preliminary to an investigation of religious problems. The author does not make his position in epis-

temology entirely clear. He definitely rejects pragmatism, yet, in his anxiety to avoid intellectualism, seems to adopt a view substantially identical with it. These chapters add little to the value of the book.

Professor Rogers writes with force and vigor, using simple language and direct, if not always graceful, modes of expression. In developing his idealistic theory of nature, he is so successful in avoiding technical phraseology that his argument will be perfectly intelligible to those without special knowledge of philosophy. As a whole, the work is closely reasoned and convincing. The theistic argument would have been strengthened, if the author had taken more account of the facts of the moral life, — had, in fact, devoted a chapter to the 'moral' proof.

H. W. WRIGHT.

LAKE FOREST COLLEGE.

The following books also have been received :

The Roots of Reality: Being Suggestions for a Philosophical Reconstruction. By ERNEST BELFORT BAX. London, E. Grant Richards, 1907. — pp. xi, 331. 7s. 6d.

The Philosophical Radicals and Other Essays, with Chapters Reprinted on the Philosophy of Religion in Kant and Hegel. By A. SETH PRINGLE-PATTISON. Edinburgh and London, William Blackwood and Sons, 1907. 6s.

Pragmatism: A New Name for Some Old Ways of Thinking. By WILLIAM JAMES. London, Longmans, Green, and Co., 1907. — pp. xiii, 309. \$1.25.

Lectures on Humanism, with Special Reference to its Bearings on Sociology. By J. S. MACKENZIE. London, Swan Sonnenschein & Co., 1907. — pp. vii, 243. \$1.25.

The Stoic Creed. By WILLIAM L. DAVIDSON. Edinburgh, T. & T. Clark. Imported by Charles Scribner's Sons, New York, 1907. — pp. xxiii, 274. \$1.75.

Yale Psychological Studies, New Series, Volume I, No. II. Edited by CHARLES H. JUDD. [*The Psychological Review Monograph Supplements, Vol. VIII, No. III, June, 1907.*] Lancaster, Pa., and Baltimore, The Review Publishing Co. — pp. v, 227-423.

Christianity and Modern Culture: An Essay in Philosophy of Religion. By CHARLES GRAY SHAW. Cincinnati, Jennings and Graham; New York, Eaton and Mains. — pp. 310. \$1.25.

English Church History, from the Death of Charles I. to the Death of William III. By ALFRED PLUMMER. Edinburgh, T. & T. Clark; Imported by Charles Scribner's Sons, 1907. — pp. ix, 187. \$1.00.

Old Testament Miracles in the Light of the Gospel. By A. ALLEN BROCKINGTON. Edinburgh, T. & T. Clark. Imported by Charles Scribner's Sons, 1907. — pp. xv, 144. \$1.25.

- Psychology: General Introduction.* By CHARLES HUBBARD JUDD. New York, Charles Scribner's Sons, 1907. — pp. xii, 389.
- Laboratory Manual of Psychology.* By CHARLES HUBBARD JUDD. New York, Charles Scribner's Sons, 1907. — pp. xii, 127.
- Folkways: A Study of the Sociological Importance of Usages, Manners, Customs, Mores, and Morals.* By WILLIAM GRAHAM SUMNER. Boston, Ginn & Company, 1907. — pp. v, 692. \$3.20.
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SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de Mét.* = *Revue de Métaphysique*; *Rev. Neo-Sc.* = *Revue Néo-Scolastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia e Scienze Affini*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abt.*; *Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

LOGIC AND METAPHYSICS.

Der Wirklichkeitsgedanke, III und IV. GEORG WERNICK. *V. f. w. Ph.*, XXX, 4, pp. 357-395; XXXI, 1, pp. 57-86.

The conclusion of the previous article was that the evaluation of a content as real depended upon its connection in a systematic whole with other contents already adjudged real. This is accomplished by means of four kinds of association: similar and dissimilar, simultaneous and successive. By means of these associations, the sensuously given is formed into a continuous whole, by connection with which a particular content is adjudged real. The different senses have different values for the consciousness of reality. The visual perception is most important in regard to quantity, for most of our perceptions are visual, and we can have several visual perceptions at once. Qualitatively also they are superior to the others, since they come to us in a definite order, thus forming a continuous manifold which facilitates the associative process. Tactual perceptions are of less importance, since they are less delicate, less easily localized, less easily isolated. But they have a high 'reality value,' as is shown by the common phrases, 'to grasp a thing,' 'hard matters of fact,' etc. Furthermore, they are but little liable to illusion; they last, and can be verified at times when visual perceptions cannot. Auditory perceptions contribute to 'reality value' by informing us concerning the origin of sounds, but they are inferior to the tactual, since we often disregard the objective reference, as in the case of music. Smell and taste, owing to their lack of localization power, contribute very little to the estimation of reality. That they contribute anything is evidence that perception in itself implies reality. Cornelius's theory of the reality evaluation of reproduced contents cannot be accepted, because it presupposes what it seeks to explain, resolving itself into the circular argu-

ment, that to take for real means to expect certain sensations, and to expect means to take for real in the future. Secondly, he seeks to make the evaluation of a content as real dependent upon an event which itself is not considered real. Thirdly, his explanation does not agree with the observed facts. And, finally, he makes the fundamental error of supposing that space can have a reality value independent of objects. There are three kinds of direct motives or conditions involved in the process of judging a content to be real : (1) the present or previous perception of the content in question ; (2) inferences drawn from previous perception ; (3) reliable sources of information. There are, besides, certain individual peculiarities which belong to the mental content adjudged to be real, distinguishing it from mere fancies, which we may call the indirect conditions. These are : (1) feelings connected with the reproduction of events, such as fear and anxiety ; (2) memories of real events, much richer in detail than those merely imagined ; (3) the fact that, in the reproduction of the perceived content, the associated elements are bound together with greater fixity, certainty, and necessity than in the mere imagination complexes. These characteristics are not intrinsic to the process of adjudging a content to be real, though they are very favorable to it. The judgment of unreality rests in part upon the comparison of ideational with perceptual mental contents. In such a judgment, we have the three following moments : the ideational reproduction of parts not perceived ; association of the two kinds of mental content ; and comparison, that is, the becoming aware of the difference in reality-coloring of the ideational and perceptual content. This holds true of simultaneous as well as of successive associations.

A. U. POPE.

Valeur de la raison humaine. CLODIUS PIAT. Rev. Néo-Sc., XIV, 1, pp. 5-18.

The value of human reason is often called in question on account of the subjective conditions which limit knowledge. But this view, pushed to its logical outcome, denies the existence of all other men ; and even Kant and Mill shrank from such solipsism. Moreover, it is only through reason and the testimony of other men that we know the past ; and science never limits itself to the present appearance, but always presses forward to the true reality. The psychological origin of knowledge does not determine questions of validity ; we know things as they are, even though we do not know them 'in themselves.' Their necessary relations give rise to analytic judgments, in which, whether tautological or heterological, the necessary connection of the two terms is seen to follow from the nature of the terms themselves, and is no mere addition of thought from without. This is true even of the much attacked principle of causality, as may be shown by carrying out Kant's own principles to their logical conclusion ; in becoming idealistic, the principle of efficiency loses none of its objective necessity. There are no synthetic propositions in the Kantian sense ; all

our necessary judgments are analytic, based 'on a study of the evidence itself. Our necessary judgments are strictly universal; the principles of our reason govern the whole realm of the possible. Experience shows that our ideas are derived from the facts, and correspond to the facts; they have empirical and also metempirical validity.

F. D. MITCHELL.

A Criticism of the Psychologists' Treatment of Knowledge. H. A. PRICHARD. *Mind*, No. 61, pp. 27-53.

This article deals primarily with Ward's article on Psychology in the *Encyclopædia Britannica*, but makes occasional references to Stout's *Analytic Psychology* and *Manual of Psychology*. As the writer himself says, the argument is: (1) That the psychologists' attitude to knowledge is based on a false theory of knowledge; (2) that they ignore the subject-object relation involved in knowledge; and (3) that the desire for explanation that prompts their treatment is mistaken. In accepting the Lockean and Berkeleyan standpoint as the true one for the science of psychology, Ward commits himself to a position that renders knowledge impossible. For Locke conceives the idea as separate from the reality of which it is a kind of picture, while Berkeley's position, which Ward does not distinguish from that of Locke, logically leads to subjective idealism; and neither of these views gives to knowledge objective validity. And as far as subjective idealism is concerned, it cannot stand before the absolute postulate of knowledge,—which postulate the author frankly assumes,—that what is known exists independently of the knowledge of it. This, in fact, is the crux fatal to all idealism. The influence of these two standpoints is evident in the writings of psychologists. Ward's distinction between psychology and the physical sciences is based on the Berkeleyan point of view, and logically abolishes physics altogether. If it be objected that this distinction is based not upon subjective idealism, but upon modern idealism, still the realistic objection involved in the above postulate must be met. This fundamental fallacy of treating psychology as the study of the 'world as presented' vitiates the whole procedure of the psychologists of this school. The influence of the Lockean point of view is seen in Ward's theory of presentation, where that which is presented is practically Locke's 'idea' and not the reality itself. Perhaps this same influence is more evident in the writings of Stout, who accepts the Lockean standpoint explicitly. And among psychologists generally the same tendency is evident, especially in their theory of perception, which seems to say that the physical world is never a direct object of perception, but is known only through sensations. In fact, that of which we are conscious in thought is not ideas but real universals; we perceive objects, not percepts of objects. Knowledge consists of a subject-object relation. On the subject side of this relation is the knowing or apprehending subject; everything else that is real falls on the object side. Knowing, therefore, is always the relation in which subject stands to object.

Therefore knowing cannot possibly be an object, as psychologists attempt to make it, when they treat the apprehension of an object as if it were itself an object. To demand an *explanation* of mental processes is to ask for an impossibility. Reflection can make us aware of the perception of an object, the act of discrimination, and the mind's power of apprehending universals; but it cannot explain these activities. Explanation is, indeed, a mistaken ideal of knowledge; many processes (*e. g.*, the operation of counting) are intelligible but inexplicable. The true ideal of knowledge is to understand, not to explain. After all, the faculty psychology of Plato and Aristotle is the best.

G. W. CUNNINGHAM.

Image, Idea, and Meaning. R. F. ALFRED HOERNLÉ. *Mind*, No. 61, pp. 70-100.

A common theory distinguishes in every idea three aspects: existence, content (image), and meaning, — the first two psychological, the last logical. The meaning consists of part of the content of the image, set apart and fixed by the mind. But this view is untenable. The meaning is universal, not particular; it is richer than the image, not poorer. The theory in question is based solely on a consideration of 'revivals' of visual and other sense-perceptions; but many persons make little use of such imagery. No idea is wholly meaningless; every idea is, even psychologically, an idea of something. Idea and meaning form together an inseparable complex psychic whole, in which, however, only the meaning is normally perceived. The complex of sign (word) and meaning is not formed by mere association, and there need not be any identity of content between them. The older psychologists, — Hobbes, Hume, Dugald Stewart, and others, — fixed their attention solely on the image, and tried to convince themselves that it was the whole; the same fallacy is found in James's theories of emotion and activity. Every idea is at once my idea and my idea of something; for both psychology and logic consciousness always has a meaning, an object outside itself, which cannot be reduced to a mere psychic 'fringe' of other images or signs. The 'fringe' is subordinate to the meaning, even when the meaning is only implicit. In experience we are always conscious of reality; neither psychology nor logic can go back of this unity of sign and meaning. The distinction between sign and meaning is not coincident with the common distinction between idea and reality. The 'real' and the 'imaginary' are made of the same stuff, and the difference between them has no basis in the character of ideas as mental events. The ideal is often taken as *ipso facto* unreal; this may mean, among other things, (*a*) that the real is the present and the ideal the not-present, or (*b*) that the real is what is given in sense-perception. (*a*) When we say that the past and the future are present 'in idea' but not 'in reality,' we may use the word 'present' either in a temporal sense, — the idea of the past or future is 'present' in the subjective time series of my consciousness now, though its object is not 'present' in the objective

time series,—or in a non-temporal sense, referring to the qualitative difference between the original experience, in which reality must coöperate, and the later revival of that same experience, to which the coöperation of the object is, on the theoretical side, not essential. This difference between the original experience and the retained or remembered experience is in the main irrelevant for logic, but not for psychology. An object once experienced as real retains this character of reality even though known thereafter only through memory. (b) The identification of reality with sense-perception, as contrasted with the ideal element in thought, shows that the distinction depends on the subject's mode of experiencing the object, not on the content of the object which coöperates in the original experience. Disputes about the relation of sense-perception to thought are largely due to a confusion of these two meanings of 'idea.' In conclusion, the author indicates briefly the application of his theory to the realization of ideas in volition.

F. D. MITCHELL.

Prolegomena to an Apology for Pragmaticism. C. S. S. PEIRCE. *The Monist*, XVI, 4, pp. 492-546.

This article, as its title indicates, is meant to be propædeutic to a further discussion of the pragmatic theory of knowledge. It is an attempt on the part of the author to present in diagrammatic form the general course of thought. Such diagrams, he argues, will enable one to investigate the essential relations involved in a process of thought, just as the chemist, for example, investigates the molecular structure of a particular substance. Since the logician is concerned not so much with results as with the nature of the process by which they are arrived at, the diagram, to be of service to the logician, should picture distinctly the smallest step of the process so that its significance in relation to the whole may be adequately represented. Such a scheme of diagrammatization the author believes he has discovered in his system of existential graphs. He goes into a somewhat detailed discussion of this system of existential graphs, but, on account of its very technical nature, it hardly lends itself to a summary. In general, he attempts to show by analysis how this scheme of diagrammatization is suited to an adequate and thorough representation of any proposition or course of argument. By means of this scheme, also, he hopes to bring to light important truths of logic, hitherto little understood, and closely connected with the truth of Pragmaticism. Then follow certain rules by which the method of the formation and interpretation of the existential graph is to be determined. There are five such rules, or 'conventions' as the author chooses to term them. A few examples are then given to illustrate this diagrammatic reasoning, which to the author is the only really fertile reasoning. The reader is first carried through the evolution of the graph, is shown how it pictures to the eye the essential nature of the reasoning process, and finally is assisted through various steps

of interpretation. In a later paper the author purposes to show in what relation the conception of the proposition and argument, reached as a result of this system, stands to the truth of Pragmatism.

G. W. CUNNINGHAM.

Thought and Language. J. MARK BALDWIN. Psych. Rev., XIV, 3, pp. 181-204.

This article, which is taken from the material of Chap. vi of the author's work, *Thought and Things, or Genetic Logic*, Vol. II, "Experimental Logic," is an attempt to study the normal development of logical meanings. Viewing the problem from the standpoint of language, one notes two distinct and opposing tendencies in the various theories. (1) The personal or dynamic tendency, which considers language genetically as the vehicle of expression for thought, and looks at the problem from the personal or individual point of view. But how does language get its common meaning? This question leads naturally to (2) the social or static theory, which views the problem from the social side, and maintains that language is first common and conventional. Its problem is how such a stereotyped system of forms can become the vehicle of personal experience. The truth lies between these two extremes. Personal meanings and social meanings overlap, but do not coincide. The symbolism of common intercourse must therefore be both flexible, so that it can accommodate itself to personal experience, and static, so that it may embody the habitual and symbolized meanings of common experience. So the demand of developing thought is for a social form of expression, embodying the dual reference ('synnomic' character) of logical meanings. Language grows to meet this demand, and is thus at once personal and social from start to finish; it is the material evidence of the concurrence of social and personal judgment. Written language embodies the static, speech the dynamic aspect of thought. Thought thus having a dual reference in its development, there must be two tests of truth. On the one hand, the individual must have a means of testing the validity of proposed meanings; on the other hand, there must be a means, social in its nature, by which the hypotheses of individuals may be tried. The unit for such comparison of meanings is the unit of linguistic expression or a predicative meaning. Now analysis shows four possible cases of predicative meaning: a statement of belief (elucidation) by the speaker may be met with acceptance (elucidation) or a question (proposal) on the part of the hearer; and a statement of question (proposal) by the speaker may be met with belief (elucidation) or a joint question (proposal) on the part of the hearer. From the social point of view, we see that thought, and so truth, is instrumental in a very important sense. The development of truth is dialectic; the two tests in its development from proposal to elucidation are commonness and reasonableness. That is, this dialectic consists in the twofold movement from personal proposal through social judgment to personal judgment, and

from social proposal through personal judgment to social judgment. So knowledge is never complete and never free from that problematic reference which one or the other of these tests would further fulfil. The elucidations of one generation are proposals for the next, and the elucidations of society are proposals for the man of genius. Language is thus a personal and social vehicle of thought, and its gradual development arises from the necessity of reciprocal intercourse between the individual and society.

G. W. CUNNINGHAM.

Comment se pose le problème de Dieu. E. LE ROY. Rev. de Mét., XV, 2, pp. 129-170.

This article consists of a critique of the classical proofs for God's existence. Although the argument is negative and destructive, the author intimates that a following article will be positive and constructive. The classical proofs are divided into three classes: (1) those drawn from the physical world; (2) those drawn from the moral world; and (3) those drawn from pure reason. The first proof is from movement, by which God's existence is shown through the necessity of a prime mover. This proof implies the adoption of the postulate of motion as externally added to some part of a static, atomic world. The notion of a prime mover is so difficult to conceive that, as a proof, it is only explaining one mystery by one more obscure. The modern form of the cosmological proof is even more unsatisfactory and crude. In the form of the argument from contingency, it reveals God as transcending nature. The acknowledgment of a *necessarium in rebus* does not imply an *aliquid*, a necessary being. Without begging the question, this argument proves only an immanent necessity and not a distinct, necessary being. The proof from a first cause is involved in an infinite regress. Even when God is not a term in the numerical causal series, the argument uses the principle of causality, which belongs to the phenomenal order, in the transcendent order. The argument from design is the most popular proof. It is a proof for the orator or lyric poet, and not for the logician; it is incomplete and insufficient, and succeeds in proving only the intelligence and wisdom of an extra-mundane creator without establishing his perfection. The argument is weakened by science and rests on a general anthropomorphic basis. The argument from degrees of perfection is open to a *reductio ad absurdum*; when used in the order of spiritual realities, it is vague and obscure, and includes a *petitio principii*. In the case of the proofs from the moral world, let it be granted that all men have always believed in God. The whole problem consists in interpreting this belief. Although universal consent proves that our inmost aspirations are not individual subjective feelings, a desire is not a proof, but may be, through fear of illusion, a motive for doubt. The moral proof assures us of the existence of something, but perhaps it is not God. The moral world, like the intellectual world, is perpetually under-

going organization. The moral proof leads to the recognition of the character of God as a static, rigid absolute. To argue from the moral law to a divine legislator is to accept an anthropomorphic conception of God. The weak point of the moral proof, in any form, is that it rests on premises unjustifiable *a priori*. The difference between the proofs from pure reason, or the ontological argument, lies in the form only. The common characteristic of these proofs is presenting God as an internal fundamental principle constitutive of thought. The ontological argument is the basis of all the others, and corresponds closely to the conclusions of idealistic criticism. Anselm's argument takes the form of a dilemma: either God exists or the concept of a perfect being is contradictory. We may accept the latter alternative. Infinity and perfection are not reconcilable with the idea of any sort of individual being. The proof from eternal and necessary truths implies an anthropomorphic conception and contains a *petitio principii*. In the Cartesian proof from the idea of the infinite, the notion of the infinite is left too vague. We do possess the idea of the infinite, and it is immanent in every other idea.

FRANK B. CRANDALL.

Pragmatism as the Salvation from Philosophic Doubt. JOHN E. RUSSELL.

J. of Ph., Psy., and Sci. Meth., IV, 3, pp. 57-64.

The author frankly expresses doubt concerning the certainty of truth respecting any matters of fact that lie beyond the circle of the immediately known facts of experience, the passing moments. He holds that every theory of knowledge, idealistic as well as realistic, except pragmatism, logically issues in philosophic doubt. Pragmatism is now to have a hearing. Its conception of truth is substantially this: Truth is found only in experience and in that which is immediately given. This experience is constantly changing; want is followed by fulfilment, tension by relief, purpose by its achievement. Truth is such a working out; the true experience is the one which has such an issue. So with knowledge; whenever, in a given experience, there is an awareness or consciousness of the experience, of its want, its discord, its intention, its pointing beyond itself, there is knowledge. Truth is known because it is experienced. To this the author replies that, though the statement of the kind of change necessary for conversion from doubt by pragmatism is clear, it is not so clear how that conversion can be effected. Pragmatism is unable to make one a pragmatist, because its conception of truth is one which makes it impossible to produce a reasoned conviction that its doctrine is true. Again, there seems no place in this world of true experience for any but one's own experience. Or, if many reals are postulated, how can they have anything to do with each other? If they are supposed to do so, how can they, unless, as realities, they be conceived in a certain way; unless certain consequences be deduced from this conception, and the conception be verified

by actual experiences which agree with the deduced, the hypothetical, experiences? But this is adopting the conception of truth as the agreement of an idea with its object. Finally, if the true experience is not a mere chance transformation, must there not be some idea of the total experience as having a determinate character; such a character as should emerge from the given situation? And is not the judgment of truth dependent upon the comparison of this experience and the purposed one? If these are necessary parts of truth and cognitive experience, is there not a different conception of truth used from that first given as pragmatic? The author finds himself, at the end, as at the beginning of his inquiry, confessing doubt; for between the pragmatist's region where doubt entereth not and himself, there still seems to be a great gulf fixed.

MATTIE ALEXANDER MARTIN.

PSYCHOLOGY.

The Province of Functional Psychology. J. R. ANGELL. Psych. Rev., XVI, 2, pp. 61-91.

In delineating the scope of functionalist principles, we distinguish three principal forms of the functional problem. In the first place, as against the structural psychologist, the functionalist holds that, however it may be in other sciences dealing with life, in psychology at least the answer to the question 'what' implicates the answer to the questions 'how' and 'why.' If, in inquiring regarding any particular sensation, you abstract from the manner in which, and the reasons why, it was experienced, your analysis and description are manifestly partial and incomplete. Secondly, the functionalist's problem is to discover the fundamental utilities of consciousness; and here, as mind contributes in general to organic adjustment to environment, we see the broad, biological ideal. Two general types of functional categories are disclosed,—the physiological, *e. g.*, assimilation, and those concerned with the more general trend of organic development, *e. g.*, selection. Various other classifications have been advanced, *e. g.*, that of Warren into sensibility, modification, differentiation, association, and discrimination. The third conception of functional psychology shows its relation to psychophysics, and takes for consideration those expressive movements which follow upon certain ideational activities which we interpret as anticipatory and deliberative. Its meaning is that, at certain stages of psychological development, it has become necessary to resort to physiological considerations. What particular theory (interaction or parallelism or other) is to be adopted, is still a question for the individual thinker, and in his decision he is probably largely influenced by current philosophical discussion. The various theories of the functional problem converge upon one another. Its most fundamental category is perhaps control, of the process of which the special forms of consciousness are simply particular phases. Of course, the mechanism of control is dependent upon the cog-

nitive processes, etc.; but, from the vitalistic point of view, control is still the basic factor. Whatever the influence of biology, philosophy will always stand high in the favor of functional psychology as an interpreter of its achievements and an integral part of the scheme of the cosmos. Functionalism means to-day a broad, flexible, and organic point of view in psychology.

MARGARET K. STRONG.

La fonction psychologique du rire. L. DUGOS. Rev. Ph., XXXI, 12, pp. 576-599.

To attempt to explain laughter by referring it to profound, subtle, and mysterious causes is to make a true explanation impossible. Laughter is, and can be, psychologically, only an elementary and simple phenomenon. Physically, laughter is a breaking forth into irregular respiratory action produced by an accidental cause, and has two conditions: a prior nervous tension, and an external circumstance which suddenly ends this tension. Laughter, considered as an ideo-emotional phenomenon, has likewise two conditions: a prior state of seriousness manifested in muscular tension and checked respiration, and a sudden emotion producing a reaction against the previous state, a muscular relaxation and active respiration. Laughter being the transition from the serious to the comical, implies the ability to experience both. Seriousness is the starting-point in an explanation of laughter. The sage, who is purely a reasoning being, and the animal, which has no reason, do not laugh. Seriousness is an intermediate stage between animal stupidity and reason. Contradiction is not a cause of laughter, but an indication of the laughable. What is laughable in itself is, and can be, only misplaced and abnormal seriousness. The person who laughs enters by sympathy into the state of mind of the person at whom he laughs and partly shares his folly. Hence he who laughs must have in him a little of the fool, and must let himself yield somewhat to the first impressions of things. Of the conditions of laughter, objective and subjective, the former are the more important. The unforeseen may be regarded as a characteristic cause of laughter, when the terms are made precise. If laughter has always an external necessary cause, the intimate and profound cause must lie in the temperament. Laughter is essentially subjective and individual, and is an effect of one's disposition. Laughter marks the giving up of one belief and the adoption of another, the giving to the ideas one course and suddenly diverting it. The cause of laughter is a disillusion. There are as many sorts of laughter as there are ways of the mind's instinctive adoption and rejection of belief. Laughter of the 'dogmatic' and 'skeptical' types lacks both simplicity and gaiety. A man is characterized both by the nature of his beliefs and by the way in which they spring up and are removed in his mind. Laughter is a phenomenon of adaptation of the mind to images which obtrude, and marks the sudden transition from one state of the mind to another, different or contrary. Laughter plays an important rôle in practical life in facilitating intercourse between different types

of men. The psychic impulsive nature of laughter is the element emphasized.

FRANK B. CRANDALL.

La psychologie quantitative. J. J. VAN BIERVLIET. Rev. Ph., XXXII, 1, pp. 1-33; 2, pp. 140-175.

The history of scientific psychology is marked by three periods: that of psychophysics, that of psychophysiology, and that of experimental psychology. Fechner, the founder of the first, attempted a general application of Weber's Law, *i. e.*: within limits, the smallest perceptible difference between two excitations of the same nature is always due to a real difference which increases proportionally to the excitations themselves. According to Fechner's application of this law, it is the special property of the soul, as affected by certain forces, to reduce the intensity of impressions to their logarithm; or, sensations increase as the logarithm of their stimuli. Nerve currents, externally excited, are converted in the cortex into cerebral images of conscious sensations, and the intensities of these sensations are compared in consciousness. Fechner imagines an intermediate element between excitation and sensation, the psychophysical movement produced by vibratory excitation in the nerve. Confounding pure sensation, the terminus of the nerve current, with the complex sensation we get in consciousness, he thought sensation could be measured as a quantity. Fechner was hampered as a scientist by a metaphysical preoccupation. He sought the relations of abstract sensibility disembarrassed of concrete conditions, which conditions he considered of secondary importance. Weber's work, upon which Fechner draws, is careless, and Weber's figures turn against him. Nor were Fechner's own experiments conducted with sufficient precision, or checked by null or negative stimulations. Nor yet was any measure of attention taken. And he employed an absurdly small number of observers, a dozen perhaps; sometimes himself alone, or three or four of his collaborators. Even then his results contradict Weber's Law. His best work was a criticism of methods. He perfected and employed three: 'just perceptible differences,' using ascending and descending series; 'true and false judgments,' comparing the intensities of two impressions in a great number of trials; and 'average errors,' comparing the individual with the average error of a great number of cases. In working on the sensation limen, he sought the least possible perceived sensations, and the smallest perceptible difference between two or more sensations. Fechner's work was ably criticised and refuted by Hering, and corrected and modified by Delboeuf and many others. Helmholtz and Plateau measured luminous sensations. Delboeuf introduced the law of fatigue and exhaustion, based on the observation that nerves accommodate themselves to stimuli, so that for the same degree of excitation progressively stronger stimuli are required. Wundt, the founder of physiological psychology, held that a stimulus of intensity corresponding to the external stimulus is produced in consciousness, and that consciousness compares this sensation

with other conscious sensations, the reduction of intensity taking place in consciousness. Merkel bases his experiments on Wundt's application of Weber's Law. Stumpf distinguishes the subjective certitude of our judgments from their objective certitude. This last certitude can be measured. Münsterberg sees all sensation end in a muscular sensation. A visual sensation is not the multiple of another visual sensation and cannot be measured in units of itself. But every sensation modifies muscular tonicity, and the consequent muscular sensations are quantitatively and consciously comparable. The fundamental error of psychophysics lay in regarding sensation as simple. A sensation, on entering consciousness, becomes a part of a complex of sensations and emotions. It is not possible by the determination of the external excitation and the resulting nerve current to measure the sensation, for the sensation is not at all what consciousness attributes to the nerve commotion caused from without. Fechner, seeking a law by which mind is related to matter, thought he saw that the movements of the exterior world impinging on the soul undergo a certain reduction. Psychophysics tried to determine the quantity of that reduction for the several senses. The tendency of that period was to reach mathematical formulæ. Applying the methods of physics to human activity was treating men as the reproductions of an archetype constructed after an exact formula. To this concept is due the insufficiency of subjects of experiments. They indeed tried to render the material conditions of experimentation as equal as possible, but they neglected another factor of the experimental condition, the subjective disposition of the observer. Fechner, however, created a movement, called attention to questions of capital importance, and perfected valuable methods of psychological investigation.

C. WEST.

De l'esprit magique à l'esprit scientifique. SAGERET. Rev. Ph., XXXII, 3, pp. 289-305; 4, pp. 366-383.

A spirit resembling that of modern savagery, and quite the opposite of that of science, dominated early civilizations. This savage mentality has never ceased to exist, and survives now in religions, customs, laws, and superstitions of civilized peoples. Two principles of savage magic can be formulated: (1) The part is equivalent to the whole; (2) like influences or presages like. Under these principles we can class certain marks of savage mentality, such as a belief in essences, in tabooed objects, in the virtue of touch, in invisible beings similar to visible beings, in animism and all forms of confusion of man and nature, in metamorphoses and incarnations. We find survivals of these in our day in charms and the curative power of sacred relics, in sacraments and the laying on of hands in religious rites, in the belief in ghosts and astral bodies, in sacrifices and the significance of repeated names and numbers and of signs and symbols. Most of these traits are seen again as the very essence of poetry and art, as well as of mysticism and religion. But what gives a characteristic mental tone to our

modern civilization is the spirit of science, which is opposed to the spirit of magic as the objective is to the subjective. Science has progressed by the gradual dehumanization of the world. The spirit of science demands disinterestedness, and the logic of feeling is not disinterested. Therefore science must be free from human feeling. Mathematics, apparently operations of the human spirit governing the external world, would seem to root the human and the subjective the more deeply. But their danger is not in themselves; they are but indifferent instruments, incapable of modifying the nature of what they combine, and, indeed, in so far as they refract by essence the logic of feeling, they are necessary to science, though not sufficient. Again, astronomy could not become a science while it served human ends, as astrology. Nor can industry, whose every step of progress has come by the aid of disinterested scientific investigation, become a science while in human service. And when it comes to a study of man, the only guarantee of its value as a science must be the abstraction from it of feeling.

C. WEST.

Sur l'imagination affective. F. PILLON. Rev. Ph., XXXII, 3, pp. 225-255.

There are as many kinds of imagination as there are kinds of memory. The rôle of imagination is to vary the modes of association of remembered images of all kinds. Now there is an affective memory as there is a visual memory. The affective memory guides desire. Feelings and the movements that express them are so far associated that not only does the feeling cause an external expression, but the expression in turn arouses the feeling. Reproductions of these feelings, more or less lively, tend also to reproduce attitudes, gestures, and other movements. These reproduced movements tend, in their turn, to revive those reproduced feelings which gave them birth. There is thus established between feelings or affective reproductions and sensations or motor images an inseparable association, which results in mutual dependence. There is, then, no disembodied human emotion, but neither can an intellectual life be conceived which is not in some degree affective. Hence a disembodied intellectual life, if not human, must yet be affective. A collective emotion may likewise be explained as one which spreads by suggestion and imitation of movements and feelings. But the movements and feelings, though associated, are distinct phenomena.

C. WEST.

NOTES.

Professor Kuno Fischer, whose retirement from teaching was announced a few months ago, died at Heidelberg on July 4. He was born on the 23d of July, 1824, and studied philology, theology, and philosophy at Leipzig and Halle. In 1850 he became *Privatdocent* at the University of Heidelberg, but three years later he was prohibited by the Bavarian ministry from public teaching, because of his theological opinions. After having lectured as a *Privatdocent* at the University of Berlin, he was called to the University of Jena as Professor of Philosophy, where he remained until 1872, when he was recalled to Heidelberg to succeed Zeller. Professor Kuno Fischer achieved high distinction both as a teacher and as a writer. His brilliant lectures attracted students to Heidelberg from all parts of Germany. His *magnum opus* was the *Geschichte der neueren Philosophie*, which was completed by the publication of the volumes on Hegel in 1901. He also published works on Bacon, Spinoza, and Kant, as well as a treatise on Logic and Metaphysics. In addition, he dealt in a series of writings with some of the philosophical aspects of literature. Under this heading may be reckoned his *Schiller als Philosoph*, *Nathan der Weise*, and *Goethe-Schriften*.

Dr. George Santayana, Assistant Professor of Philosophy at Harvard University, has been appointed Professor of Philosophy.

Dr. Ernest Albee, Assistant Professor of Philosophy at Cornell University, has been appointed Professor of Philosophy.

At the University of Illinois, Dr. Stephen S. Colvin, Associate Professor, has been appointed Professor of Philosophy and Psychology, and Dr. J. W. Baird has been made Assistant Professor of Psychology.

Dr. G. W. T. Whitney, formerly of Bryn Mawr College, has been appointed Instructor in Philosophy at Princeton University.

Professor H. Heath Bawden, of Vassar College, has accepted a call to the chair of philosophy at the University of Cincinnati.

We give below a list of the articles, etc., in the current philosophical periodicals :

MIND, No. 63 : *John Dewey*, Reality and the Criterion for Truth of Ideas ; *Leslie J. Walker*, The Nature of Incompatibility ; *A. M. Bodkin*, The Subconscious Factors of Mental Process (II) ; *V. Welby*, Time as Derivative ; *F. C. S. Schiller*, Mr. Bradley's Theory of Truth ; *H. H. Joachim*, A Reply to Mr. Moore ; *H. Sturt*, Mr. Bradley on Truth and Copying ; Critical Notices ; New Books ; Philosophical Periodicals ; Notes and News.

THE HIBBERT JOURNAL, V, 4 : *Sir Edward Russell*, John Watson ; *Josiah Royce*, Immortality ; *Henry Jones*, Divine Immanence ; *A. C.*

M'Giffert, Divine Immanence and the Christian Purpose ; *The Bishop of Clogher*, The Sufficiency of the Christian Ethic ; *John Lloyd Thomas*, The Free Catholic Ideal ; *W. R. Huntington*, Tract No. XCI ; *James Collier*, Who is the Christian Deity ? *W. Warde Fowler*, Religion and Citizenship in Early Rome ; *P. E. Matheson*, Character and Citizenship in Dante ; *S. A. Barnett*, The Religion of the People ; *J. J. Findlay*, 'What Are You ?' The Child's Answer ; Discussions ; Reviews ; Bibliography of Recent Literature.

INTERNATIONAL JOURNAL OF ETHICS, XVII, 4: *O. A. Shrubsole*, The Relation of Theological Dogma to Religion ; *Marlow Alexander Shaw*, Some Facts of the Practical Life and their Satisfaction ; *W. R. Sorley*, Ethical Aspects of Economics (III) ; *F. Carrel*, Has Sociology a Moral Basis ? *John E. Boodin*, The Ought and Reality ; *Harold Johnson*, Some Essentials of Moral Education ; *Herbert L. Stewart*, Self-Realization as the Moral End ; *Josiah Morse*, The Psychology of Prejudice ; Book Reviews.

THE PSYCHOLOGICAL REVIEW, XIV, 4: *W. V. D. Bingham*, The Rôle of the Tympanic Mechanism in Audition ; *F. M. Urban*, On the Method of Just-perceptible Differences ; *S. S. Colvin*, The Ultimate Value of Experience ; *J. Mark Baldwin*, On Truth ; Discussion.

THE PSYCHOLOGICAL BULLETIN, IV, 6: *August Hoch*, Psychogenic Factors in the Development of Psychoses ; *Adolf Meyer*, Misconceptions at the Bottom of 'Hopelessness of all Psychology' ; Psychological Literature ; Books Received ; Notes and News.

THE BRITISH JOURNAL OF PSYCHOLOGY, II, 2: *E. Bullough*, On the Apparent Heaviness of Colours ; *J. H. Wimms*, The Relative Effects of Fatigue and Practice Produced by Different Kinds of Mental Work ; *W. G. Smith* and *S. C. M. Sowton*, Observations on Spatial Contrast and Confluence in Visual Perception ; *W. H. Winch*, The Vertical-Horizontal Illusion in School-Children ; Proceedings of the British Psychological Society.

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS, IV, 12: *John Dewey*, The Control of Ideas by Facts (III) ; *James Bissett Pratt*, Truth and its Verification ; *Edward L. Thorndike*, On the Function of Visual Images ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 13: *Thomas P. Bailey*, Snap Shot of a Hunt for a Lost Name ; *Arthur Ernest Davies*, Suggestions toward a Psychogenetic Theory of Mind ; Reviews and Abstracts of Literature ; New Books ; Notes and News.

IV, 14: *Ralph Barton Perry*, A Review of Pragmatism as a Theory of Knowledge ; *W. P. Montague*, Contemporary Realism and the Problems of Perception ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 15: *Warner Fite*, The Exaggeration of the Social ; *William James*, A Word More about Truth ; Reviews and Abstracts of Literature ; Journals and New Books ; Notes and News.

IV, 16: *Ralph Barton Perry*, A Review of Pragmatism as a Philosophical Generalization; *Wendell T. Bush*, The Continuity of Consciousness; *R. W. Sellars*, Professor Dewey's View of Agreement; Societies; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

THE MONIST, XVII, 3: *Lawrence H. Mills*, Avesta Eschatology Compared with the Books of Daniel and Revelation; *O. F. Cook*, Agriculture the Basis of Education; *Editor*, The Oracle of Yahveh; *Ephraim M. Epstein*, Mosaic Names of God and What they Denote; *Daisetz Teitaro Suzuki*, A Brief History of Early Chinese Philosophy; *William Ellery Leonard*, The Fragments of Empedocles; Book Reviews and Notes.

KANT-STUDIEN, XII, 2: *Walter Zschocke*, herausgegeben von *Heinrich Rickert*, Über Kants Lehre vom Schematismus der reinen Vernunft; *Bruno Bauch*, Erfahrung und Geometrie in ihrem erkenntnistheoretischen Verhältnis; Recensionen; Selbstanzeigen; Mitteilungen; Erste Preisauflage der Kantgesellschaft.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SOCIOLOGIE, XXXI, 2: *Max Frischeisen-Köhler*, Über den Begriff und den Satz des Bewusstseins; *Carl Max Giessler*, Das Lautspurentasten bei der Erinnerung an Eigennamen; *Eduard Reyer*, Das Einfache in der Natur; Besprechungen über Schriften.

ZEITSCHRIFT FÜR PSYCHOLOGIE, XLV, 3 u. 4: *Walther Jacobs*, Über das Lernen mit äusserer Lokalisation (Schluss); *V. Benussi*, Experimentelles über Vorstellungsinadäquatheit; *R. Hamann*, Über die psychologischen Grundlagen des Bewegungsbegriffes; Besprechungen; Literaturbericht.

XLV, 5: *Max Levy*, Studien über die experimentelle Beeinflussung des Vorstellungsverlaufes (II); *R. Hamann*, Über die psychologischen Grundlagen des Bewegungsbegriffes (Schluss); Literaturbericht.

REVUE PHILOSOPHIQUE, XXXII, 6: *J. J. Van Bierliet*, La psychologie quantitative (2^e étude): La psychophysiologie; *E.-Bernard Leroy*, Nature des hallucinations; *L. Dupuis*, L'hallucination du point de vue psychologique; Analyses et comptes rendus.

XXXII, 7: *F. Le Dantec*, L'ordre des sciences; *A. Binet*, Une expérience cruciale en graphologie; *A. Chide*, La conscience sociale, catégories logiques; *Probst-Biraben*, Le mysticisme dans l'esthétique musulmane; Revue critique; Analyses et comptes rendus; Revue des périodiques étrangers.

REVUE DE PHILOSOPHIE, VII, 6: *E. Schiffmacher*, L'idée de Dieu et l'idée du Cosmos; *A. de Gomer*, Le libre arbitre; *C. Lucas de Peslouan*, Sur les fondamentes de l'arithmétique (3^e article); *M. Thomas*, L'objet de la métaphysique selon Kant et selon Aristote; Analyses et comptes rendus; Périodiques; L'enseignement Philosophique.

VII, 7: *F. Mentré*, Note sur la valeur pragmatique de pragmatisme ; *Abbé Farges*, Comment il faut réfuter Kant ; *E. Magnin*, Observation ; Analyses et comptes rendus ; Périodiques ; L'enseignement philosophique.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, XV, 3: *É. Borel*, La logique et l'intuition en mathématiques ; *V. Boy*, La vision ; *L. Weber*, La morale d'Épictète et les besoins présents de l'enseignement moral (suite) ; *A. Léon*, La notion du réel ; Études critiques ; Questions pratiques ; Supplément.

REVUE NÉO-SCOLASTIQUE, IV, 2: *Jean Halleux*, Les preuves de l'existence de Dieu : à propos d'un livre sur l'existence de Dieu (suite) ; *F. Van Cauwelaert*, L'empirio-criticisme de Richard Avenarius (suite) ; *G. Legrand*, Ampère et Maine de Biran : La théorie des rapports ; *C. Sentroul*, Les préambules de la question kantienne ; *L. Noël*, Bulletin d'épistémologie : le pragmatisme ; *O. Sistini*, Le mouvement thomiste à Rome ; Bulletin de l'Institut de Philosophie ; Comptes-rendus.

JOURNAL DE PSYCHOLOGIE NORMALE ET PATHOLOGIQUE, IV, 4: *Waynbaum*, Les caractères affectifs de la perception ; *Laignel-Lavastine*, Le plexus solaire et ses fonctions (suite) ; Société de Psychologie ; Bibliographie.

RIVISTA FILOSOFICA, X, 2: *A. Chiappelli*, Dalla critica alla metafisica ; *G. Bonfiglioli*, La morale di Tertulliano nei suoi rapporti colla filosofia stoica ; *G. Della Valle*, Le premesse dell'umanismo ; *R. Montuori*, Dualismo biologico e limiti della responsabilità penale ; Rassegna bibliografica ; Bollettino bibliografico ; Articoli di riviste straniere ; Notizie e pubblicazioni ; Voci lettori ; Sommari delle riviste straniere ; Libri ricevuti.

RIVISTA DI FILOSOFIA E SCIENZE AFFINI, XVI, 5 e 6: *R. Ardigò*, Guardando il rosso di una rosa ; *T. Levi Civita*, Le idee di Enriques sui principi della meccanica ; *G. Zuccante*, Frammenti della storia d'un' anima (Arturo Schopenhauer) ; *G. Dandolo*, Studi di psicologia gnoseologica (La funzione gnoseologica della rappresentazione) ; *G. Marchesini*, Sui confini della tollerabilità, III, L'apostolato della scienza ; *G. Martinotti*, Su la soglia della coscienza (continuazione e fin) ; *M. Simonetti*, Per l'anima della scuola ; Questioni varie ; *B. Varisco*, Questioni di psicologia ; Autorelazioni analisi e cenni.

THE PHILOSOPHICAL REVIEW.

THE OBJECTS OF KNOWLEDGE.

THE distinction between 'object' as a thing existentially external to an individual mind and 'object' as the goal or term of reference for thought, is obviously of the utmost importance for epistemological discussion; and yet this distinction is one not always kept in mind in such discussions. It is with 'objects' in the second sense that we are concerned in this article. An object in this general sense, which includes, as a special class, objects in the first sense, is anything that may be qualified by the judgmental reference of thought to it. Object, in this fundamental, epistemological meaning of the term, includes all termini of judgment, whether the aim be simply to render a theoretical account of fact or to treat such account as a step towards practical achievement. Since conscious possession of knowledge requires always the activity of judgment, no sharp line of division can be drawn between theoretical and practical thinking. The success of practice involves the truth of theory.

An object, then, is any specific situation or element in experience which yields *conscious meaning* or reflective significance for a thinking self. And 'object,' as the terminus or 'objective' of judgment in cognition, is analogous to 'object' in the practical sense, as goal of volition or action. In this respect, no hard and fast line can be drawn between thinking and willing, cognition and action. When one asks me, "What is the *object* of all this labor of yours?" he means, and I understand that he means, "What *end* have you in view in carrying on this piece of literary work, *i. e.*, what is the goal of your effort of will, involving, as it does, so much reflection?" Another may be asked, "What is

the *object* of this strenuous physical training or this assiduous devotion to business?" To which he may reply, "To beat A in a race," or, "To get rich before I am forty." His *object* is called more 'practical' than mine, simply because it can be more readily appreciated by the average intelligence.

The object of knowledge involves the consciousness of the distinction between the *idea of an object* and the *object that warrants the idea*,—a distinction without which there would be no knowledge and which carries in its train all the perplexing questions as to the way in which thinking can refer to an object, as to how knowledge can be more than a merely subjective or psychological process, in short, the whole nest of epistemological problems.

It does not fall within the main purpose of the present article to discuss these questions at large. I must be content here to emphasize one consideration involved in the distinction between the idea of an object and the object of an idea.

Knowledge begins in simple judgments, judgments of feeling or sentience, as yet devoid of explicit conceptual relations, but containing the germs of all the higher functions of thinking. And the problem of the nature and function of cognitive thinking, in short, the entire problem of knowledge, arises directly out of the emergence of *images* and *ideas* as products of judgment in its function as the mediating activity between immediate consciousness and its objects. Images and ideas are at once the distinguishing and the relating terms between the self as knower and doer, and the world in and through which it knows and does.

It would be interesting and important to trace in some detail the psychological process of the genesis of images and ideas, but I cannot pause to do so here. A few words on this point must suffice. The simplest judgments of sentience are ploughed deep into the texture of mind because of their emotional and practical interest. They are retained,—just how, we need not stop to consider, since this is primarily a matter for psychology. When similar judgments are made again, *i. e.*, when the mind consciously reacts to similar situations, they are felt as similar, and this feeling is the condition of more specific identification. There is a thrill of recognition of partial identity,

perhaps a distinct redintegration. Memory images are thus formed through the feeling of similarity that binds together fragments of past imagery, of experiences of pleasure-pain, tension, movement, etc., as significant of consciously active attitudes. In this way more or less definite images or ideas of typical objects of judgment arise in consciousness.¹ For instance, the candle, now judged by the child to be the same in behavior as the lighted thing which formerly burnt it painfully, does not now inflict a burn, because the recognition of sameness in behavior involves the judgment that it would burn if touched, and so the child makes the further practical judgment of not touching it. Images and ideas get freighted with all sorts of significant relationships for a self, and these constitute their cognitive values. As instruments for storing up and directing experiences, they gain a quasi-independent reality; but their entire *raison d'être*, as well as their use, lies in their functions as instruments of a thought-directed adjustment of the self to the world of experience. And this adjustment involves what are commonly called theoretical, as well as practical and emotional, relations.

The self becomes, not only a centre of feeling that can be affected by, and that can affect objects, but also a centre of thinking that by judgmental activity forms 'ideas' about things, that carries about memory-images of objects. In short, the self becomes a knowing and devising self,—one that judges and plans, that is aware of the distinction between *itself* as judging and devising, the *objects* concerning which it judges and devises, and the *judging or knowing process* which is at once the connecting link and distinguishing term between knowing self and known object.

It may become necessary, in the course of thought's development, to divide experience up into two disparate realms, physical and psychical, and to conclude that the former has an independent being to which thought may validly refer, but which is of

¹ I should not maintain that all thinking requires images. No doubt in every case of thinking, when psychologically considered, some sort of image or sign at least may be found. But in the actual movement of thought, the sign is entirely subordinate to the meaning, and the latter, in the higher stages of thinking, is hardly capable of envisagement.

wholly foreign nature. But it is certainly untrue to the manner in which experience is operated upon from within and reconstituted by thinking, as well as fatal to a theory of knowledge, to begin with an assumption of this character. Experience, in its beginnings as psychical immediacy, is neither physical nor psychical, in the sense in which these terms are employed when they are contrasted. The sharp contrast between physical and psychical is one that has grown up through the formation of memory-images and ideas that seemingly are carried about in the head, and hence may be supposed to have an entirely different sort of existence from that of the 'external' objects to which they refer. It is, in short, the interposition of reflective knowledge, as a third term, between the immediate states of a psychical centre and the objects of its thought and action, that leads to the assumption of a purely independent and utterly non-psychical world. What ultimate warrant this assumption may have, we need not stop to enquire here. I am concerned now to insist that, from the standpoint of the origin and nature of knowledge, the truly important distinction of subject and object is that between the cognitive *meanings* which thinking, as judgment, has, and the *objects* to which these meanings refer. True judgment is always a dynamic act of intelligence, the reference of meanings or of ideas in their significance to reality. The objects which constitute reality for us may be either what we commonly call psychical or physical. A thought or an emotion of my own is just as truly, and in quite the same valid sense, object of my cognitive meaning in the act of reference called judgment, as is a sky-scraper or a mountain.

I may interpolate here the observation, that it is the confusion between object as object of thought in judgment, and object as an extended mass having form, color, etc., that is responsible for the assumption of naïve realism, that the world of objects must differ *toto cælo* from the world of thought. In truth, no experience has meaning, except in so far as the constitutive act of thought is or has been at work upon it. Either all experience is actually or potentially meaningful for thought from the outset, or it remains forever dumb and blind. The germs of thought's mediating

activity must be present in the crudest datum of sense perception. Knowledge does not begin with some raw unmentalized datum thrust into the mind from without. The physical object, to which a judgment refers, may be as impenetrable as wrought steel, as hard as a diamond, but, as object of thought, it is not something thrust into a mind from without, but reference of a thought's meaning or an idea's cognitive bearing to reality.

If knowledge or truth, then, be never, in any case, either an image or idea taken by itself or a particular existence outside the mind, what is it? Knowledge must be, in simplest and most general terms, a consciousness of the relation between a thinking or judging mind and anything concerning which a mind may judge. Hence truth or specific knowledge, the result of judgment, does not *exist* in the same sense in which particular things exist. Truth is actual or real, but its reality is that of valid meaning. Truth does not *exist*, but it nevertheless *is*, and existence is one class of its objects. Existence has truth or is true, in so far as it enters into the relation to the judging mind which yields psychic meaning. Every kind of real existent must somehow yield this ideal quality of psychical meaning; for only thus is there any sense in speaking of a thing's existence.

Now, what is the relation between particular objects of knowledge, which somehow exist, and the principles of truth or judgment, which do not exist in the same sense in which, for example, a pebble exists, but the reality of which must be involved in the truth of any matter of fact?

If knowledge does not consist in the mere psychical existence either of ideas or of non-ideational things, and yet, on the other hand, existence implies truth, and truth somehow refers to existents, reality must have a *dual* character. Reality, as a whole, must involve the correlative or interdependent being of *fact* and *meaning*, of thought and its object. Then nothing can be an object of knowledge that has not the quality or power of receiving and sustaining the constitutive act of thought called judgment. It is an essential characteristic of a knowable object that it is a subject of judgment. Then, if the valid reality of thought imply the reality of a systematic whole of thought, the truths of

particular fact cannot be independent of truths of general principles. The organism of truth must be a systematic unity, from the barest and most isolated matter-of-fact up to the most wide-reaching generalization.

It is not my purpose, in the present article, to consider at length what may be the specific character of this organism of truth. Our previous discussion is in the nature of a preamble to a classification of the various types or classes of objects of knowledge, with a view to indicating their interrelations, and so preparing the way for a fuller consideration of the doctrine of a systematic unity of intelligence or organism of knowledge as the ultimate implication and ground of knowledge.

Let us then briefly consider the various classes of cognitive objects. These classes are as follows :

Class I. The class of all objects external to the mind of the individual knower, *i. e.*, existing in apparent independence of the individual's consciousness of them. This class includes (*a*) *all physical objects* (including the thinker's own body, after he has developed a consciousness of the distinction between his mind and his body and of the causal relationship between his own body and other bodies); (*b*) *social psychological objects*, or the ideas and feelings of other minds, whether as now existing or as having existed in past time and having left, in historical records, expressions of their ideas and feelings. Class I is the class of over-individual or socially sharable objects of thought; and, since all the objects of knowledge in this class, although known only through the constitutive act of judgment, are thought as independent existences, we may call it the class of *over-individual existents*, *i. e.*, of existents that are socially recognized as such, in distinction from those that are known only to the individual thinker. A complete epistemological enquiry would have to decide whether these social existents as knowable objects imply an over-social consciousness, or whether the doctrine of a social consciousness is sufficient foundation for their knowable reality.

Class II. The class of the individual thinker's own ideas, feelings, etc., as objects of immediate awareness, when he feels

them, or of retrospective awareness in memory and reflection. (My supposed knowledge of my own past states sets, of course, a serious problem that cannot be entered upon here.) This is the class of strictly individual objects of cognition. Only I can be directly aware of my own psychic states. But objects of this class may pass over into Class I (*b*) by expression and inter-communication. This passage is only very partially achieved in the case of our deepest feelings and strivings. The complex individuality of these makes communication through conventional and generalized signs very difficult. Inter-communication, of course, requires also the constructive interpretative activity of the mind which receives the communication. How one mind can know another, is a special form of the general epistemological problem, how a mind can know anything beyond its own passing states.

Class III. The class of universal truths, viz., the first principles of logic and mathematics (and of ethics, æsthetics, metaphysics, and religion, if there be such). Much ado is made to-day in some quarters as to how the propositions of logic and mathematics can *exist*, and it is argued by one school¹ that these propositions must exist as entities independent of any thinking mind. According to the view of the present writer, they are not to be taken as existents at all. There are two obvious types of existents, physical processes and psychical or psychological processes. Whether these two types can with any show of sound reason be reduced to one, is an ultimate problem for metaphysics. The members of Class III, such as the principle of contradiction, the axioms of geometry, etc., are objects of cognition whose actuality or reality consists in their being as laws or formulas which express fundamental operations or functions of thought, by which any existent is known through judgment as an existent *in relation* to others. These principles, then, are over-individual or general objects of cognition, not of the type called 'existents,' but of the type called 'valid' or 'significant' activities of reason. Their being does not consist in a particular factual existence, like that of

¹That of G. E. Moore, B. Russell, and others. See Russell's *Principles of Mathematics*, *passim*.

a table or a toothache, but in their actuality as fundamental principles or laws expressive of that universal structure and functioning of thought or reason on which depends the whole development of psychic meaning or conscious significance in the world of things. These principles do not exist, but they express fundamental conditions of existence and non-existence in a world that is conscious of itself, and in a consciousness that knows itself only in relation to things of which it is or may become conscious. In short, this is the class of *over-individual principles of validity*, or of *absolute intelligible values*.

Now, if every truth be true, every meaning valid, only in so far as it fits into an organized or systematic and coherent whole of truth, then the universal truths of logic, mathematics, etc., must somehow fit into this systematic whole, although we may not be able now or at any time to determine finally how these principles cohere. The validity of this self-coherent system is the *reality* of a supreme mind or organization of truth.¹ The absoluteness of truth consists in the completeness and systematic coherence of all the thought relations involved in knowing the existent as actual and possible. Now Classes I and II, referring respectively to over-individual and to individual existents, as objects of cognition, involve judgments which, if true, must be universally valid. For example, it is a particular and local fact that I have a headache to-day; but if true now, it must somehow be an element of truth for all time that I, at this particular date, had a headache, whatever 'I' and the 'headache' may mean at some future time. If the judgment respecting it have any truth, then the fact of the headache is somehow implicated with all the conditions of existence now, and the judgment about the fact is implicated with the whole system of judgments by which existence in its totality gets psychical meaning or significance. It would be still easier to show that judgments concerning isolated physical facts are implicated, through the laws of the physical order, in the whole system of meanings which belong to physical existence as object of organized thinking. It follows that

¹ I must reserve for another occasion the full development of an argument on this point.

Classes I and II of cognitions involve Class III. In short, any valid judgment or act of cognitive reference, by which *fact* is constituted for a knowing mind, is implicated in the whole system of valid judgments, whose first principles or underlying texture are to be found in the *absolute values* which constitute the principles of logic, mathematics, etc. All types of cognition, then, presuppose the absolute validity of an ideal systematic or self-coherent whole of experience conscious of itself. This is what we mean by the reality of a universal mind.

There seems to be still another class of objects of knowledge, viz., those that refer neither to existents nor to valid principles of thinking, and yet are objects of thought; for example, a 'round square,' 'wooden iron,' 'Pegasus,' 'Centaurs,' etc. This class may be subdivided into (a) contradictory objects of thought, such as a 'round square'; (b) mythological and imaginary figures or ideas, such as 'Centaur,' 'castles in Spain,' a 'mountain of gold.'

Sub-class (a) is simply that of contradictory and invalid ideas which a mind can entertain, not as objects of logical thinking, but as imaginary or 'play-objects' of thought. A 'round square,' 'wooden iron,' a 'rope of sand,' a 'capital made up of debts,' etc., are non-existent, invalid objects of thought, entertained by a process of logical play or conscious illusion, in which the logical faculty 'lets up' or recreates itself in the region of absurd make-believe. Lewis Carroll's *Alice in Wonderland* and *Through the Looking Glass* are classical examples of this play or make-believe.

It is often the case that a mind which is not conscious of the logical relations of opposition or incompatibility among ideas, joins incompatibles and seriously holds them as true. In other words, contradictions and absurdities may be entertained unwittingly by a mind that unites ideas unconscious of the contradictions in fact or principle involved in the union. Such contradictions exist simply as psychical processes. It would belong to a psychology and logic of error to deal fully with such cases, and I shall not dwell upon them further.

The objects of subclass (b), such as 'Centaurs,' 'Pegasus,' 'Minerva is the daughter of Jupiter,' etc., exist for thought in a 'universe of discourse.' The figures of Greek mythology

have psychical existence as members of a system or group of ideas which we may refer to minds that once existed and created these figures, just as the imaginary figures of a modern poet, Blake or Shelley for instance, exist in the mind of that poet and for the sympathetic minds of his readers. These objects of thought, mythological figures, etc., have an over-individual psychical existence and meaning through their reference to the creative imaginations of poets or peoples, the Homeric Greeks, for example. The existence of these mythological figures of the past, now, as objects of thought, refers to the present activity of minds possessed of sufficient imagination and feeling to endow historical records with psychical meaning.

In conclusion, I will briefly point out the application of our classification of objects of knowledge to the arrangement of the sciences. The physical sciences, including physics, chemistry, and biology, are sciences of over-individual physical existents. The psychological sciences are sciences of over-individual psychical existents, *i. e.*, of common or socially verifiable facts of mind. Mathematics, logic, ethics, æsthetics, and the philosophy of religion are sciences of the over-individual values or valid principles of thinking, of conduct, of the feeling for beauty, and of devotion or worship respectively. These values, of course, if valid, must apply to the world of existents and be discoverable therein. The distinction made between descriptive and normative sciences rests upon this difference, in mode of approach, between the study of observable and verifiable facts of existence and the study of the values or ultimate principles involved in the interpretation of the world of fact. One may study physics without a preliminary enquiry into the logical foundations of induction or of mathematics, and one may experience beauty or religious uplift without the study of æsthetics or of the philosophy of religion. But, in every case, the truth of what one studies or experiences depends upon the functioning in one's mind of the ultimate values or principles of validity. And these principles must, in turn, be discoverable in the facts of experience. Hence no absolute separation can be made of descriptive and normative sciences.

There can be no science of purely individual existents or private

and immediate experiences, no science of *my* toothache and headache, of *my* love and aspiration, except in so far as these pass over, through physiological processes, into the realm of over-individual physical existents, or, through expression, into the realm of over-individual or social psychical processes.

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KANT'S CLASSIFICATION OF THE FORMS OF JUDGMENT.

A DETAILED study of Kant's relation to the German logicians of his century may seem to some to be the last recourse of a *Kant-Forschung* in search of a not yet wholly exhausted subject of erudition. In reality, however, an acquaintance with this class of facts is peculiarly indispensable for any intelligent reading of Kant or any just judgment of his work. It is, for one thing, a necessary aid and means of control in the exegesis of the *Kritik der reinen Vernunft*; for the import of otherwise obscure passages sometimes becomes intelligible enough upon a consideration of the form in which certain problems were left, or the terms in which they were discussed by Kant's predecessors. There is nothing, moreover, which does so much to enable us to anatomize Kant's mental processes at some of the critical turns in his argument, to see just what logical motives are playing upon his mind, to follow the windings of his thought without bewilderment, to notice not only when he falls into confusion, but also why. Such an understanding of Kant's procedure and motives from the inside is important not simply because it puts us in a better position to judge of the coherency and value of this or that argument in the *Kritik*, but still more because it provides the material for determining the justice of the still widely prevalent view that Kant was a singularly penetrating and powerful reasoner, a master of the dialectician's game of '*distinguo*.' A reputation for this sort of masterfulness in argument,—such as Aristotle once had, and for a time, and in a lower degree, Spinoza,—if it is undeserved, may be a very serious obstacle to the progress of philosophic insight. There are those who suspect that Kant's reputation is at the present time, especially in Germany, an influence that obstructs and diverts and confuses the course of contemporary philosophical inquiry. And finally, there is reason to think that there has been a certain amount of misrepresentation of historical realities,

in the current accounts of the precise points of difference between Kant and the philosophers of the preceding generation, and an excessive widening of the gap which is supposed to separate the critical method from earlier modes of philosophical procedure. For all of these reasons, an accurate knowledge of the logic of the school of Wolff is a thing eminently desirable. Yet the subject has hardly even yet been so fully and competently studied as its importance might have led one to imagine that it long since would have been.

A valuable contribution to such study has, however, recently been made by Dr. P. Hauck in an article on Kant's table of the different classes of judgments.¹ The rôle which this classification of judgments plays in the system is well known; it is by means of it that Kant discovers his twelve categories, whose application to objects constitutes the prerequisite condition of the possibility of experience. The list seems fetched in as a *deus ex machina* at a point where Kant's thought would otherwise have come to a stop, for the lack of any means of determining just what and how many the categories are. Now the *machina* in this case has commonly been supposed to be the Wolffian logic. Kant himself intimates that, in the main, he takes the scheme over from the formal logicians as a finished product; and even the friendliest commentators on the *Kritik*, recognizing the abruptness of the introduction of the table of judgments and its artificial character, have usually observed that Kant was misled here by a too great confidence in the fundamental significance of the distinctions of formal logic, and by a too ready and uncritical acceptance of the results reached in that field by his predecessors.

Now what Dr. Hauck shows is, that this is precisely the fault with which Kant cannot be charged; that so far from taking over his table of judgments ready-made, he radically alters what he found in the classifications of the logicians to whom he refers; and that this alteration is motivated by the supposed requirements of the 'transcendental' logic, so that it is really the table of categories that shapes the table of judgments, rather than the contrary. The books from which Kant's ideas on the subject took

¹ *Kantstudien*, XI, 1906, pp. 196 f.

their departure are well known. They are Meier's *Vernunftlehre* (1752), first of all; and besides that, Lambert's *Neues Organon*, Baumgarten's *Acroasis logica*, and Wolff's *Philosophia rationalis*. A comparison of the division of judgments in these books, with respect to the several *fundamenta divisionis*, with Kant's classification, shows how widely he departed from the models before him. Thus, as Dr. Hauck points out, Meier and Baumgarten, under the head of the 'quantity' of judgments, give a two-fold division, based upon the nature of the subject, one of the classes being further subdivided, as follows: I. *Judicia singularia* (having a singular subject). II. *Judicia communia* (having a general term as subject): 1. *judicia universalia*; 2. *judicia particularia*. But Lambert had shown the now familiar fact that, so far as the quantity of the proposition is concerned, propositions having singular subjects belong in the same class with universal propositions of which the subject is a general term; since in either case the predicate is affirmed or denied of the whole of the possible denotation of the subject. Lambert, therefore, gives the now accepted dual division into universal and particular propositions, with 'singular' judgments constituting a subdivision of the former. Kant expressly recognizes the propriety of Lambert's revision of the scheme. And he would have got a dual division by following *either* Lambert or Meier. But instead, he departs from both, while taking material from each, and reaches a triple division by treating the three classes in Meier's scheme as strictly coördinate. Analogous innovations of Kant's own are shown in his divisions with respect to quality, relation, and modality.

I do not wish merely to recapitulate Dr. Hauck's important paper, which is doubtless familiar in its entirety to all who are interested in the subject. But it appears to me that the author does not see the full bearing of the facts which he brings out, nor appreciate the real significance of the historical data which he has so well exhibited. Dr. Hauck seems to be one of those whose natural powers of vigorous insight have been hypnotized by Kant's reputation. He remarks that "schon die Achtung vor der Grösse Kantischen Denkens" ought of itself to lead us

to conclude that these alterations in the table of judgments are based upon profound and valid reasons; and he seems, in fact, to regard Kant's innovations as decidedly meritorious, even from the point of view of the formal logician. "Wäre Kant nicht gewesen, und ein anderer hätte in demselben Masse in die formale Logik eingegriffen, so wäre er der Nachwelt als ein bedeutender Logiker erschienen." To argue from the 'reverence' due Kant's thought to the correctness of his method and conclusions, appears to me to be one of the forms of *a priori* reasoning which the *Kritik der reinen Vernunft* does not succeed in justifying. And I think it worth while to try to point out the actual meaning of Dr. Hauck's facts, as he does not do, while acknowledging throughout great obligations to his research.

First of all, one ought to note the way in which these facts illuminate Kant's curious lack of what may be called logical self-consciousness, — the ability to have always clearly in mind just where one is in an argument and how one came there, — and his consequent tendency to play misleading, but doubtless quite unconscious, tricks upon his reader. Hauck's argument, — for the details of which the reader must refer to his paper, — that Kant did not deduce his categories from his table of judgments, but merely fixed his table to remove the appearance of arbitrariness from the predetermined scheme of categories, seems to me convincing. But if so, the whole section of the *Kritik* containing this table and the discussion and explanation of it, is an elaborate, however unintentional, pretence. "Transcendental philosophy," says Kant grandly, in introducing the subject, "has the advantage, but also the duty, of discovering its concepts according to a fixed principle." This fixed principle the division of judgments in formal logic is to provide. But it now turns out that the principle, as applied, does not come from any formal logic then recognized; that it is a factitious construction got up *après coup* for the express purpose of giving a sanction to just the scheme of categories which the philosopher appears gravely and innocently to be deducing *from* it.

Let us, however, consider Kant's classification in detail, with the narrow-minded spirit of the formal logician. Has Kant's

classification of judgments, in those respects in which it departs from the results of his predecessors, any value? Does it even comply with the elementary requirements of respectable classification?

I. *Quantity*.—Kant's division of judgments with respect to quantity it will be remembered, runs as follows: Universal, Particular, Singular.

Yet, as has been remarked, he recognizes that, "in using judgments in syllogisms, singular judgments may be treated like universal ones," as Lambert had shown him. How, then, does he justify his treatment of singular judgments (*i. e.*, those having a singular subject) as a coördinate class? He does not neglect to offer a reason for his alteration. "If," he says, "we compare a singular with a general judgment, looking only at the quantity of knowledge conveyed by it (*der Grösse nach*), that knowledge stands to the other (conveyed in a universal judgment) as unity to infinity, and is therefore essentially different from it. It is, therefore, when we consider a singular judgment, not only according to its own validity, but according to the quantity of knowledge which it conveys, that . . . we see how well it deserves a separate place in a complete table of the varieties of thought in general, though not in a logic limited to the use of judgments in reference to each other." But what is this differentiation of judgments *der Grösse nach*? Obviously, to begin with, the 'quantity' of judgments in Kant's sense is not what formal logic has ever meant by quantity. In the latter sense, there is a complete dichotomy among judgments: in every case the predicate either is or is not affirmed or denied of the whole denotation, or range of possible being, indicated by the subject. Here, then, there can only be the usual two-fold classification. What Kant signifies by quantity is not this specific relation of subject and predicate, but "the amount of knowledge conveyed by the judgment." This simply means that the singular proposition tells us something about only one object, while the universal proposition tells us something about an indefinitely large number of objects. But now, taking this Kantian sense of 'quantity,' and sticking to it, do we get a tripartite division? Is

there any decisive and non-arbitrary reason why we should have, from this point of view, neither more nor less than three 'quantities' of judgments? Obviously not. A dual division here might be reasonably significant,—judgments referring to one, and judgments referring to more than one object. But certainly when we go beyond this general distinction of unity and plurality, there is no assignable reason for stopping with the mention of any particular number of degrees of plurality. 'Some *S* is *P*,' for example, a particular judgment, tells us something about a number of objects more than one, and less than the indefinite whole number of objects constituting the extension of the class *S*. The particular judgment is, therefore, without doubt, clearly and significantly distinguished from both the singular and the universal. But just as clearly and significantly distinguished from it is the judgment: 'Most *S*'s are *P*'s'; that is, a number of objects more than one, and more than the half of the indefinite whole number of objects included within the class *S*, belong to the class *P*. And similarly we might make a separate class for propositions of the type: 'Two thirds of *S* is *P*.' Nay, more; the essential distinction which Kant draws in favor of the separate classification of 'singular' judgments is not that they refer to a specific proportion of a possible class of objects, but that they refer to *one* object, while universal judgments refer to an infinity. In strictness, therefore, Kant should have a separate category of quantity, in *his* sense of quantity, for every number in the series between one and infinity. For, really, the relation of part of a class to the whole of a class has nothing whatever to do with Kant's criterion of division here. Judgments are to be distinguished, for him, not according to how great a proportion of a genus they tell us about, but *how many things* they tell us about.

The meaning of this is obvious. Kant has simply slipped over from 'quantity' in the logician's special (and rather arbitrary) sense, to quantity in the purely mathematical or arithmetical sense. But he is not aware that he has done so, and he does not carry out the proper consequences of doing so. He happens to need a triple division, — partly, one is compelled to

believe, because he is wedded to the triad, and partly because he has already before his mind the purely mathematical categories (which have no bearing upon the logical quantity of propositions) of unity, plurality, totality. This particular triad itself lacks a proper *fundamentum divisionis*. Unity is a category of number, plurality is a category of indefinite number, but totality is a category of proportion. Its proper place (if we are to refrain from going into arithmetically definite proportions) would be in a scheme running thus : Some (of a possible collective unity), most, all. And even here it would be easy to interpolate additional indefinite degrees of approximation to totality. The series beginning with unity and plurality, if it have any proper third member, must find it in 'infinity.' Apparently one reason which prevented Kant from putting this in place of totality, was that he already felt the need (which was to become so dominant in Hegelianism) of conceiving of the third category in each of his triads as swallowing up and uniting the characters of the other two.

It appears, then, that in dealing with the quantity of judgments, Kant (*a*) passed over from the logical to the strictly mathematical notion of quantity, without realizing that he had thereby come into a realm where the special distinctions and divisions of the formal logic are no longer in place ; (*b*) he did not see what was implied by this transition, but arbitrarily adhered to a triple classification ; (*c*) he was led to do this last because he had already preconceived a triad of mathematical categories of quantity, which triad itself appears to be an improper classification, in that it lacks a clear and uniform basis.

II. *Quality*. — Kant is perhaps the first logician in history to conceive of a class of judgments neither affirmative nor negative, yet to be classified along with these by the same criterion of quality. At all events the Wolffian writers are innocent of any idea so ingenious. They adhere to the familiar dichotomy which so obviously appears to exhaust the possibilities of the case. Here again, however, Kant must needs have his tripartite division. He gets it, as before, by taking one of the species of one of the two apparently exhaustive genera, and erecting it into a third,

coördinate genus. The logicians preceding him had been accustomed to call attention to a certain class of judgments affirmative in form, but having negative predicates (*termini infiniti*). An example of these 'infinite judgments' is the proposition: 'All dumb animals are non-rational.' The effect of such a judgment, manifestly, is to imply the division of all subjects of discourse (or, as it is usually more loosely taken, of all animals) into two classes, rational and non-rational, which are together completely exhaustive, and to assert that dumb animals belong in the class 'non-rational,' the denotation of which is presumably the more extensive, while its connotation is the less definite or (when the proposition is taken strictly) is purely negative or privative. It is this species of affirmative judgment that Kant makes into a third class of equal rank. He does not fail to offer his defence of such a surprising addition to logic. These infinite judgments constitute a distinct 'quality' from a point of view peculiar to the transcendental logic. That logic always asks: "How much is gained by a given affirmation with reference to the sum total of knowledge?" Now, in the case of an infinite judgment, "it is true that, so far as the logical form is concerned, I have really affirmed something by saying that the soul is non-mortal; for I thus place the soul in the unlimited sphere of immortal beings." All I have said, however, "is that the soul is one of the infinite number of beings which remain when I take away" from the sphere of possible being "all that is mortal. By this the infinite sphere of all that is possible becomes limited only in so far as all mortal things are excluded from it, the soul being then placed in the remaining part of its original extent. This part, however [here is Kant's point], even after its limitation, still remains infinite, and several more parts of it may be taken away without extending thereby in the least the concept of the soul [*ohne dass darum der Begriff von der Seele wächst*]." Hence these judgments are, "with respect to their contents," neither affirmative nor negative, but "limitative only."

Now what, once more, is the basis of division that Kant is employing here? Confessedly, not the usual one of 'form,' as determined by the presence or absence of a negative with the

copula. Nor is it the psychological criterion by which the affirmative mental attitude towards given content conceived in certain relations might be distinguished from the attitude of negation or rejection towards the same content. Kant's not very luminous explanation refers rather (*a*) to the size of the genus within the denotative limits of which the subject is left by one of these 'infinite judgments.' That genus, he says, is infinite. There is, one may observe, no need that it should be. If I divide all mankind dichotomously into the two classes of those over two feet tall, and those not over two feet tall, — or all beings into temporal and non-temporal, — there is no reason to think that the extension of my negative genus is in either case greater than that of its positive counterpart. So far as their *possible* extension goes, both genera seem to be infinite, or indefinite. So far as our knowledge of their actual extension goes, the two negative predicates apparently determine narrower genera than do the positive. There thus does not appear to exist any such difference between judgments as Kant supposes. You cannot distinguish 'limitative' or 'infinite' judgments from affirmative and negative ones merely by the size of the genera to which they assign their subjects. For many ordinary affirmative judgments (by form), and *all* negative judgments having positive predicates, assign their subjects to classes that may be as large as, or larger than, those of the corresponding infinite judgment. Negative judgments, notably, are of equivalent logical force to affirmatives with negative predicates, as is recognized in the elementary inferential process of obversion. To say 'No dumb animals are rational' is, as every one knows, the same as saying 'All dumb animals are non-rational'; when you "ask how much is gained" by the former proposition "with respect to the sum total of knowledge," you find that just exactly as much, and as little, is gained in it as in the latter. If, therefore, Kant were to adhere throughout his division to his own criterion of quality, — as applied in the definition of his third class of judgments, — we should find some negative judgments, and some affirmative ones, falling into the same class with the so-called 'infinite,' and we should thus, at best, come back once more to a dual classification, — a classi-

fication, too, in which we should lack any clear means for drawing the line between the two classes. But, of course, what Kant has done is to take the division into affirmative and negative as he finds it, — based, as it is, upon the ordinary formal distinction of ‘quality,’ — and then to proceed to make parallel with these a third variety which he has differentiated by means of a wholly disparate and inconsistent distinction.

Partly, however, Kant (*b*) seems to have in mind the fact that ‘infinite’ predicates ascribe no positive quality, no definite connotation, to their subjects. But here the same difficulty arises: negative propositions (with positive predicates) are, in this regard, in the same case as the ‘infinite’ or ‘limitative’ ones; both are species of the one genus. According to the criterion of division now suggested to us by Kant’s language, we should get another two-fold classification: I. Judgments which assign a definite, positive, and concrete attribute to their subjects. II. Judgments which assign to their subjects no such attribute. The first class would include: (1) Affirmative judgments with positive predicates; (2) negative judgments with negative predicates. The second class would consist (1) of affirmative judgments with negative predicates (‘infinite judgments’), and (2) of negative judgments with positive predicates.

In the case of the category of quality, then, Kant has fallen into the exceedingly elementary error of confusing the basis of division which he should use for distinguishing species with that by which the genera are distinguished; and, by thus shifting his *fundamentum divisionis* in the middle of his classification, he contrives to introduce a third kind of judgment. So long as he is held down strictly to one basis, he gets only a dual division, no matter which of the alternative and ambiguous senses of his criterion be taken. It is to such distressing confusions of ideas that the great philosopher descends in order to save his triads.

III. *Relation.* — The idea of classifying judgments with respect to ‘relation’ is, as Hauck notes, apparently original with Kant. His predecessors have, however, a classification, based upon other grounds, which contains the elements of Kant’s third triad. They divide judgments, namely, into simple and complex; and

under the latter they give, as species, hypothetical judgments and disjunctive judgments (and, in some cases, still others). Changing the term 'simple' into 'categorical,' Kant again arranges the three species included in a Wolffian dual division in a row as coördinate genera.

The basis upon which the Wolffians make their division is obviously rather trivial, since it is the alogical one of purely grammatical complexity. But this is merely an inadequate expression of a natural and proper (though still essentially formal) distinction of propositions into categorical and conditional, the two forms of the latter being the hypothetical and the disjunctive. In the last analysis, — as is shown by the possibility of resolution, — all judgments may be called either categorical or conditional, as you please; but the dual classification and subclassification just indicated has a certain convenience, and it is clear and consistent. We have, then, propositions in which the predicate is affirmed of the (nominal) subject (of the principal clause) with no express limitation, or with such limitation, which latter may be (so far as its expression goes) of more than one form. There is, however, as every elementary student of logic knows, no real difference between the proposition, 'A is either B or C,' and the assertion conjointly of the pair of propositions: 'If A is B, it is not C; and if it is not B, it is C.' Kant's classification must, then, be considered a poor one, since it ignores the possibility and superior logical propriety of regarding the hypothetical and the disjunctive judgments as merely two forms of conditionality. But there is no such confusion here as in the former cases: there is no actual cross-classification, no using of genera as species of other genera that are at the same time classified as coördinate with the first.¹

¹ In his *Logik* (Kinkel's ed., p. 115) Kant denies the possibility of reducing hypothetical judgments to the categorical form. This odd logical doctrine he supports by another characteristically blundering argument. "Some say that it is easy to transform a hypothetical into a categorical proposition. But this cannot be, for the two are by their nature wholly different from one another. In the categorical judgment, there is nothing problematical, but everything is assertoric; in the hypothetical, on the contrary, only the consequent is assertoric. . . . There is an essential difference between the two propositions, 'All bodies are divisible,' and 'If all bodies are composite, they are all divisible.' In the first proposition I make the assertion

IV. *Modality*.—The term ‘modality’ Kant derives from Baumgarten; his classification in its essentials is to be found otherwise (and, as we shall see, more lucidly) expressed by Lambert (1764). In this case, and in this case only, Kant found a tripartite division already provided by an earlier logician. Lambert (cited by Hauck) distinguishes our judgments as possible (*mögliche*), actual (*wirkliche*), and necessary (*notwendige*), the three being exemplified by the following propositions:

1. *A is capable of being B (kann B sein).*
2. *A is B.*
3. *A must be B.*

Kant’s innovation here, then, consists in the introduction of a new terminology,—“problematical, assertoric, and apodictic,” being substituted for Lambert’s expressions. In the *Logik* (which, while its published form dates from the critical period, probably expresses an earlier formulation of Kant’s ideas on the present matter), the new terms are expressly identified in meaning with Lambert’s: “Die problematischen Urtheile sind mit dem Bewusstsein der blossen Möglichkeit, die assertorischen mit dem Bewusstsein der Wirklichkeit, die apodiktischen endlich mit dem Bewusstsein der Notwendigkeit des Urtheilens begleitet.”

Now, Lambert’s distinction rested upon a clear and significant principle; the only criticism that can be brought against it is that his triple division could, like Kant’s third triad, be advantageously transformed into a dual one, with two species included in one of the genera. The basis of Lambert’s classification consists in the *relation of the subjects and predicates of propositions from the standpoint of our knowledge of the ‘compossibility’ of concepts*. According to a familiar and fundamental principle of

without qualification; in the second, only under a condition, expressed as problematical.” Nobody, of course, ever did say it is “easy” to reduce a hypothetical proposition to a categorical one of *different import*. All that logicians generally have maintained is that, *e. g.*, the proposition ‘If all bodies are composite, they are all divisible,’ is exactly equivalent in its logical force to the proposition ‘All composite bodies are divisible.’ Kant’s ability, as illustrated in this example, to get lost intellectually even on the straightest of roads, is to me a perpetual marvel. As for the equation of ‘categorical’ with ‘assertoric’ and of ‘hypothetical’ with ‘problematic’ in the passage quoted, that appears to be the *fons et origo* of the confusion about modality to be noted in the next section of the text.

the Wolffian doctrine, different pairs of ideas stand in quite different relations to one another with respect to their possibility of coinherence, *i. e.*, the possibility of conceiving one as a predicate of the other. Some concepts are known by us simply as compossible; that is to say, it is conceivable that one should be predicated of the other; there is between them no intrinsic 'repugnancy to coexist.' Any proposition is at least 'possible,' if its subject and predicate can thus be conceived as compossible. For example, there is nothing impossible or self-contradictory about the judgment, 'There are canals on Mars'; whether it can be known to be true is another matter. All judgments, then, are possible in so far as they are not self-contradictory; and a possible judgment has this relation to our knowledge, that it *cannot be known in advance, and from a mere analysis of the concepts involved, to be untrue*. An actual judgment (by which both Lambert and Kant mean, of course, 'actual without being also necessary') is one which, being possible, is also empirically found to be true. And a necessary judgment is one of which the truth may be known from the impossibility of conceiving the subject, in accordance with the terms of its own definition, when the predicate is negated of it. Propositions, in short, are necessary in so far as they can be known to be true *a priori*, by the test of the inconceivability of the opposite. These distinctions are all entirely luminous, and they are important for logic and for metaphysics. Since, however, all actual judgments must also be (merely) possible, the two might properly be classified together; or again, since both actual and necessary judgments differ from possible ones in being known as true, the two former might be grouped in a single genus. In either case, from the two different points of view, we should get a dual classification; the second, which is the more instructive, would run as follows: I. Judgments known as *possible* but not known to be true. II. Judgments known to be true: (1) Merely *actual* truth, ascertained empirically; (2) *necessary* truth, ascertained *a priori* by the criterion of the inconceivability of the contradictory.

Now Lambert does not express this so fully, nor, possibly, so clearly, as I have done; but the essential point of the distinction

should have been perfectly plain to anyone at all acquainted with the Wolffian logic, since the categories (in the sense defined) of possibility, actuality, and necessity may be said to make up the very backbone of that system. Kant, however, takes from his predecessor this luminous and consistent division, and forthwith involves it in the most preposterous confusion, as anyone may (after the foregoing explanation) see by turning to the passage on the subject in the *Kritik*.¹ We are first of all given an almost meaningless definition of modality; it has nothing to do with the content of propositions, but "*nur den Wert der Copula in Beziehung auf das Denken überhaupt angeht.*" This, if it means anything, appears to mean (*a*) that the modality of a judgment consists in the (subjective) degree of confidence with which it is affirmed. This would appear to be one of the several notions in Kant's mind; but it does not, of course, fit the categories included under modality, nor is it congruous with the rest of the discussion. There follow some illustrations of problematic and assertoric propositions. In these examples and his remarks on them, Kant (*b*) identifies modality with the relation of conditionality between one truth and another. Thus he tells us that "the two judgments, the relation of which constitutes the hypothetical judgment, are always problematical"; the consequent is not affirmed to be true except upon the condition of the truth of the antecedent, which is itself not affirmed. Now, in the Wolffian sense, a proposition does not need to be conceived as depending upon the hypothetical truth of another proposition, to be defined as 'possible'; any simple proposition is, as we have seen, 'possible,' if free from internal contradictions. Kant's second sense of modality is thus quite irrelevant to the Wolffian distinction. Taking Kant's conception of modality now in this second sense, two things need to be said about it. First, it reduces at least the first two categories of modality to identity with, respectively, the second and third (for the problematical judgment) and the first (for the assertoric judgment) category of 'relation.' Secondly, it does not properly permit of the classification of apodictic judgments in the same scheme with the problematical and assertoric, as now defined. For, on the one hand,

¹ A, 74-6; B, 99-101.

the apodictic judgment is not differentiated from the other two by virtue of the conditionality or unconditionality of the assertions contained in it. The apodictic character of a judgment, for Kant, consists purely in its necessity for our thought, its inevitability, and its capacity to be known *a priori*; and these characters evidently may belong to either categorical or conditional propositions. From Kant's own point of view all *a priori* propositions are in a true sense 'problematical'; for they do not refer to real existence, and they only enable us to say: "If I have any experience of a certain sort, it will conform to certain laws." On the other hand, since the apodictic proposition simply "represents the assertoric as determined by the laws of the understanding, and therefore as capable of being affirmed *a priori*," it would follow that the apodictic ought to be classified as a species of the assertoric.

Finally, Kant sometimes means by 'modality' precisely the distinction underlying the classification of Lambert and the Wolffian logic generally. When, as the last citation indicates, he is speaking of apodictic propositions, he manifestly has this, and only this, meaning in mind. The same sense is indicated by one of the discrepant observations about the 'problematical' variety: these propositions "express logical (not objective) possibility only," while the apodictic "express logical necessity." The term modality itself implies this meaning; the *modi* of a proposition, as the term is used by Baumgarten, consist in its *necessitas vel contingentia*, the *convenientia aut repugnantia* of its terms. For the kinds of modality in this sense, it is obvious that the Wolffian expressions are incomparably clearer and less ambiguous than the Kantian. The infelicity of the nomenclature which he prefers to invent for himself is perhaps partly the cause, as well as partly the effect, of the profound confusion of Kant's ideas concerning the modal distinction.¹

¹ If we were to consider Kant's account of the 'transcendental' categories and 'postulates' of modality, we should find this diversity of meanings still further increased. *E. g.*, the 'objective' possibility of a thing is said to require that we should have had "an example of it from experience" (A, 291; B, 347); thus possibility would be verifiable only *a posteriori*. We are further told (*loc. cit.*) that a concept may be not possible, without being impossible.

We see, then, that Kant means by modality three different and incompatible things ; that one of these meanings is such as to reduce the categories of relation to those of modality, or *vice versa* ; and that, for the indication even of the proper distinctions of this sort, he coins a new terminology that is both unnecessary and misleading. In the case of this fourth group of judgments, moreover, Kant's confusions and obscurities are peculiarly inexcusable, and they have been, in their historical influence, especially harmful, because of the fact that they obfuscate a significant logical distinction that had been made entirely clear by his immediate predecessors.

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POSSIBILITY AND REALITY.

THERE are two typical ways in which the relation of the possible to the real may be conceived. According to the one, possibility is a merely subjective notion ; all the possible is in some sense real, and the real includes the possible. According to the other, there is such a thing as absolute possibility ; the realm of the possible includes that of the real, and realities are possibilities of a certain kind. The classical statements of these opposed positions are given by Spinoza and by Leibniz ; but the issue, in one form or another, is a persistent one. When Mr. Bosanquet holds that the problematic judgment is really an incomplete form, which would become apodeictic so soon as its deficiencies were supplied, he is taking up the first position ; and when certain other writers on logical theory teach that there are judgments which, although necessary, have no reference to reality, they are in a measure defending the second. It is possible, therefore, that an examination of the presuppositions of the first view in Spinoza, and of those of the second in Leibniz, may throw some light upon a question which is still under discussion.

Spinoza invariably defines possibility as a notion due to the limitations of our intellect, and having no objective validity. The real division is between Necessity and Impossibility, and between these there is no middle ground. It is true that, in the *Cogitata metaphysica*, he speaks of a division of Being into Being whose essence necessarily involves existence, and Being whose essence involves only possible existence.¹ But this can only be a slip in the use of 'possible,' which is corrected a little later by a definition in the sense already indicated.² And with this all the other passages on the subject agree.³

Their import is briefly as follows : All things are either neces-

¹*Opera*, Vol. III, pp. 192, 194. (All page references are to the 2d ed. of Van Vloten and Land.)

²*Ibid.*, pp. 198-199.

³*Cf. De intellectus emendatione*, Vol. I, pp. 15-16, 20 ; and *Ethica*, I, xxxiii ; II, xlv.

sary or impossible. They may be so either 'respectu essentiae' or 'respectu causae.' God is the only being who is necessary in the first way, or, as one might say, by definition. Anything whose nature involves a contradiction, as for example a Chimæra, will be impossible in the first way. On the other hand, all things falling between these two extremes of self-evident necessity and impossibility will be necessary or impossible according as their adequate cause does or does not exist. All actually existent finite things are necessary in this second way; and the necessity, as to their essence, depends on the general laws of Nature, and, as to existence, on the particular order of the causal series in question. Possibility, however, is a classification born of our ignorance. When the notion of a finite thing is apparently self-consistent, and we know what its adequate cause would be, but do not know whether that cause exists, we call it contingent, because its concept permits of our attributing existence to it, without necessitating it; or possible, because we are uncertain as to the existence of its cause. The removal of this uncertainty would in every case put the thing provisionally styled possible under the head of the necessary or of the impossible.¹

This abbreviated statement of the position seems very abstract and formal, and in certain respects it is open to obvious objection. The notion that the mere analysis of a definition, apart from all experience, can show the impossibility of the thing defined, is of course entirely untenable. But criticism of this abstract conceptualism does not necessarily invalidate Spinoza's contention that all the existent is necessary both *a priori* and *a posteriori*, and that there is no actual 'possibility' with which it might be compared. This view is essential to the whole system, and is an inevitable result of its presuppositions.

The way in which it is deduced in the *Cogitata metaphysica* shows clearly its origin in the logical development of the Cartesian definition of substance. We can clearly conceive of any finite thing as non-existent, says Spinoza; therefore its essence does not involve existence, and it can exist only because "of a

¹"Si detur aliquis Deus aut omniscium quid, nihil prorsus hoc posse fingere." Vol. I, p. 16.

cause, that is, God, the creator of all things." "If, therefore, it is contained in the divine decree that anything should exist, it will necessarily exist; but if not, its existence will be impossible." The mention of a divine decree sounds like orthodox Cartesianism: but we are told a moment later that, since God's nature is immutable, his decrees must be for all eternity; and that "we cannot say that things are contingent, because God might have decreed otherwise; for since in eternity there is no *when*, or *before*, or *after*, or any temporal qualification, it follows that God was not before his decrees, so that he could decree differently." Consequently, "the existence of all created things is necessary from all eternity."¹ The passage is interesting, both as showing how Spinoza was modifying the Cartesian doctrine while retaining its terms, and also because, by its retention of theological phraseology, it states his position in sharp contrast with that of Leibniz.

In the *Ethics* the logical principles involved come out more clearly, since the doctrine is given in its complete and proper form. God is the sum-total of all being. His existence is necessary, and all finite beings, which are but 'modes' or parts of his, exist by the same necessity.² It is true that their necessity is derivative; the existence of the parts is carried over from one moment to the other only by the nature of the whole; and this is the only form of 'contingency' which Spinoza allows.³ The order and nature of finite beings is absolutely determined by the nature of the whole; a different world would mean a different God, which is absurd.⁴

This is what might be called the exclusive side of the theory, its thoroughgoing determinism. But it has also an inclusive aspect. There is no such thing as bare possibility; infinite reality must realize itself with infinite diversity, and all the possible exists.⁵ Non-existence as well as existence requires a cause or

¹ Vol. III, pp. 198, 200. Cf. p. 216, as to the impossibility of God having ideas of 'possible' things; cf. also *Ethica*, II, viii, corollary.

² *Ethica*, I, xxix.

³ *Ibid.*, xxiv.

⁴ *Ibid.*, xxxiii.

⁵ *Ibid.*, I, xvi.

reason ; and therefore all the really possible is really necessary.¹ The necessity is, of course, different in its immediate form for the finite individual thing and for the Absolute. The difference is parallel to that between duration and eternity.² God has his necessity in himself ; but it is the very characteristic of the finite to be determined from without. Every finite being, therefore, depends upon another finite, and the chain of finite causes is interminable.³ This conclusion is strikingly like Leibniz's description of the contingent (or finite, which for him is the same thing) as the indefinitely analyzable.

This hurried outline is, of course, an inadequate account of the grounds of Spinoza's position in this matter. And in any case, it might seem as though it were merely an outgrowth of his abstract conceptualism in epistemology and substantialistic pantheism in metaphysics. So to interpret it, however, would be unjust to the real strength of his position. It also rests upon certain other general presuppositions which do not stand or fall with his particular type of metaphysics. Chief among these is the assumption that there is a principle of order in the universe, a systematic whole of things.

Few philosophers of any period or type would deny this, since it is the fundamental postulate of all philosophizing. Once grant this principle of universal order, however, and all the rest follows, from Spinoza's point of view, as a matter of course. We can then admit no gaps either in the series of general or 'eternal' truths, or in the chain of mechanical causation in which these general principles take effect. To admit that there are exceptions to their application, or that they do not determine every real thing to its last detail, would be to deny the unity of the universe. But this is just what we do when we pretend that there is such a thing as objective possibility. A thing that was merely possible would be one to which the actual system of things was indifferent, which was neither accepted nor rejected by it. Possible things, therefore, would have no place in the system of actual things, but

¹ *Op. cit.*, xi. Cf. viii, schol. ii.

² Cf. *Ibid.*, II, viii, coroll., and *Epist.* xii, Vol. II, p. 230.

³ *Ethica*, I, xxviii.

would form a world of their own, which would require connection with the actual by some external link or bridge, such as the divine understanding according to Leibniz. As a matter of fact, Spinoza's position implies a thorough acceptance of the existential theory of judgment. Every really definite judgment connects its subject with reality, and that the more precisely the more definite and complete it is. He is only putting this into metaphysical terms, when he tells us that every 'essence' which is not merely fictitious has existence at some time or other; it exists by the same right as the systematic whole in which it is given a place, and, as it were, at one stroke with it. "God," as he says, "is the efficient cause of all things which can be objects of the divine intellect." "If there is a God, he can have no fictitious ideas." For Spinoza the universe of thought and that of reality have, in their ideal completion, precisely the same boundaries, and the necessity of the one is also that of the other.¹

When we turn from Spinoza to Leibniz, we find that strict logical consistency has been to some extent given up, in order to meet what seem to be ethical and religious demands. At the same time, the logical principles involved are much more explicitly worked out, and the treatment of the matter is in many respects more concrete.

The theological reason why Leibniz insists that there are real possibilities is, baldly stated, that God does not seem to him to have real freedom unless he is able to choose between really possible alternatives. "If one tried to reject absolutely the pure possibles, one would destroy contingency and liberty. For if there were nothing possible except what God has actually created, whatever God created would be necessary."² The region of

¹ It is true that, in the passage already cited (*Ethica*, I, xxxiii, schol. i), he speaks as though we could be certain (*probe scimus*) that the essence of a thing involved no contradiction, and yet be uncertain whether it existed. But he is probably thinking here of existence at a given time. Cf. the passages already quoted on the difference between duration and eternity, and note that he says that the uncertainty is because "*ordo causarum nos latet*."

² Correspondence with Arnauld, M., pp. 130-131. Cf. *ibid.*, p. 116. (References are as follows: C. = Couturat, *La logique de Leibniz*, 1901; L. = Latta, ed. and transl., *The Monadology*, etc., 1898; M. = Montgomery, transl., *Discourse*, etc., 1902; R. = Russell, *The Philosophy of Leibniz*, 1900.)

these real possibilities is the divine understanding, to which the essences of possible things are objects. Existence, a predicate which does not affect the essence of a thing, is given to such things as become actual by the divine will. God's "understanding is the source of essences, and His will is the origin of existences."¹ Essences, therefore, are necessarily what they are; but existing things, *qua* existing, are contingent. We must distinguish between eternal truths, which would be valid for every possible world, and those particular principles of existing being which are valid only for the actual world.

The objectivity of possibility is then an ethico-religious postulate for Leibniz. But it is also based on his logical theory, between which and his metaphysics there is an exact and too often neglected correspondence.² He points out that we may sharply distinguish between necessary, self-evident, or eternal truths, and contingent or empirical truths. The opposite of the former is impossible; of the second, possible. But necessary truths can also be analyzed into primary simple ideas and propositions self-evidently true and irreducible, while the analysis of contingent truths, though possible, is endless, since it never arrives at self-evident, or identical, propositions.³ Now it is apparent that essences are only the metaphysical counterparts of eternal truths, while existent things, with their interminable chain of causation, correspond to contingent truths. The principle of contradiction is a sufficient test of the first pair, while for the second we must call in that of sufficient reason. The metaphysical distinction is, therefore, justified by the logical.

Leibniz also explicitly derives the principle of sufficient reason from the analytic theory of judgment. "In every affirmative proposition, whether veritable, necessary or contingent, universal or singular, the concept of the predicate is comprised in some sort in that of the subject." He says in a letter to Arnauld: "It is only in this sense that I say that the concept of an individual substance involves all of its changes and all its relations, even

¹*Monadology*, § 43; Correspondence, M., pp. 115, 122; L., p. 66, note.

²*Cf. L.*, pp. 133-135.

³*Monadology*, §§ 33, 35. As to the notion of simple concepts, and Leibniz's hope to make use of them in a 'logical calculus,' *cf. C.*, pp. 33-36, 49, 431, and *L.*, p. 85.

those which are commonly called extrinsic. . . . There must always be some foundation for the connection of the terms of a proposition; and this is found in their concepts. This is my fundamental proposition, which I think all philosophers ought to agree to, and *one of whose corollaries is that commonly accepted axiom: that nothing happens without a reason which can be given.*"¹ It is clear from the correspondence with Arnauld that this dictum that all truth is analytic, and that therefore the concept of any particular thing must contain within itself the reasons for every change or state which can be predicated of it, lies at the root of the whole theory of monads.² Couturat is scarcely overstating the case when he says that "this logical thesis is the foundation of all Leibniz's metaphysic."

It follows from this principle that all propositions concerning contingents, although they be not necessary, yet are demonstrable *a priori*. Their concepts as complete embrace the decrees of God, "taken as possible," which lead to their existence.³ And although this determinate demonstration is not attainable by the human understanding, we must admit that it is present to the mind of God; and its place is taken, for us, by a causal analysis which, though unending, by its definite nature shows the existence of a necessary ground for the contingent thus analyzed or 'reduced.'⁴

All this, however, while it tells us that there must be a principle of sufficient reason to account for contingents, does not tell us what that principle is, nor what is its relation to the principle of contradiction. Unfortunately, Leibniz himself is much confused in his statements on both these questions, especially the second. Couturat points out that in contemporary writings varying state-

¹ Letter to Arnauld, M., p. 132; *cf.* R., p. 33.

² *Cf.* C., pp. 208 ff. Russell, *op. cit.*, pp. 37 ff., thinks that it was because Leibniz, while holding to the position that all necessary truths were analytic, discovered that causal and existential propositions were synthetic, that he came to hold that the actual world was contingent. But this is expressly contradicted by his repeated statement that *all* true propositions, necessary or contingent, are analytic. It is evident, however, that he is not at all clear in the matter.

³ Letter to Arnauld, M., pp. 121 ff.; R., p. 33.

⁴ Leibniz's discussion of contingents is penetrated throughout by mathematical analogies. *Cf.* *Monadology*, §§ 33, 36-39; C., pp. 211 ff.; L., p. 61. See also *On the Ultimate Origin of Things*, L., pp. 338-339.

ments as to the application of the two principles appear. At times that of sufficient reason is said to apply to all truth, necessary as well as contingent; and from its logical derivation one would expect this to be the case. Then again the principle of contradiction is said to apply only to logical and mathematical truths, while physical, metaphysical, and ethical truths depend only on the principle of sufficient reason. Couturat's solution of the difficulty is that the principle of sufficient reason is the "logical reciprocal" of that of contradiction, since it "affirms . . . that every true proposition is analytic, that is, virtually identical." It therefore applies to all truths; but we do not need to use it in the abstract sciences which deal with possible essences, while we do need it for the natural sciences, which deal with real existences. "Hence, though all truths depend on the principle of contradiction, the truths of reason are considered as its special field; and in the same way, though all truths depend on the principle of sufficient reason, it is regarded as applying especially to factual truths, which cannot be proved without it." But the sharp division of territory between the two principles comes when we cease to consider the essence of things each for itself, and raise the question of their 'compossibility.' It is, then, under the stress of the ethical and religious demand already noticed, that contradiction becomes the law of essences, and sufficient reason that of existences. "The principle of sufficient reason, purely logical in its origin, takes on a metaphysical and theological character."¹

Another recent commentator, Mr. Bertrand Russell, fails to notice the wider application of the principle, and considers it as one applying only to possible being. But he subjects it to a closer analysis in this sense than Couturat has done, and finds that here again it has a double meaning. As a *consequence* of the principle of contradiction, and applying to all possible worlds whatever, it means that all *possible* causes are desires, designs, or intentions. But as *coördinate with* the law of contradiction, and applying only to the actual world, it means that all *actual* causes are desires for the good, or, in the case of God, for the best.²

¹ C., pp. 214-221.

² R., pp. 30-35.

This last meaning is of course the form in which the principle appears in Leibniz's metaphysics. The principle of sufficient reason is a *principium melioris*. Among the possible worlds present to his understanding, God's choice will naturally select the best.¹ Those essences 'compossible' with it will become existent; the others will remain merely possible.

But, without raising the difficulty of the origin of impossibility among essences that in God's understanding are all compossible,² there is lurking under this apparently straightforward statement another conflict between the logic and the ethics of the system. "Essence of itself tends to existence," Leibniz tells us. If his possibilities are to be real, he must assert this. It follows, then, that the more essence, the more right to existence. "Perfection is nothing but quantity of essence." "Hence it is most evident that out of the infinite possible combinations and series of possible things there exists that one through which the greatest amount of essence or possibility is brought to existence." "Thus we have physical necessity coming from metaphysical necessity."³ But if this be true, the 'choice' of God is a mere fiction. The highest sum of essence must gain the day, as against other possible sums, and the principle of sufficient reason, as Couturat remarks, takes on a mathematical or mechanical form. Leibniz is also fond of describing the 'best' as the largest possible whole of reality determined by the simplest possible principles, and God as the "wisest possible geometer." So that ultimately the principle of sufficient reason, which inclines without necessitating, is just this union of the simplest possible principles with the richest and most varied results.⁴

It is obvious that some of the difficulties we have just rapidly reviewed arise from the fact that Leibniz had never cleared his ethics from the antinomies of common sense. But there are others which are fundamental, and it is significant that they all arise in connection with the doctrine of 'real' possibility, and the

¹ *Monadology*, §§ 53-54; *Principles of Nature and of Grace*, §§ 7-10; C., pp. 219, 221, 224.

² Cf. C., p. 219.

³ *On the Ultimate Origin of Things*, L., pp. 340-342; C., p. 224.

⁴ Cf. C., pp. 225-233.

attempt to employ the principle of sufficient reason as a means to separate what in the possible becomes actual, from what remains merely possible.

Most radical among them are those arising from the separation of essence from existence. As we just saw, Leibniz holds that it makes no difference to the essence of a thing whether it exist or not. Existence is a merely external predicate, tacked on from without, as it were. This is an inevitable position in any attempt to separate actuality from possibility, and give the latter an independent status. But note the result. In the first place, Leibniz contradicts his own view as to the nature of a proposition, and can get over the difficulty as to existential predicates only by adding the "sufficient reason" in each case to make up the "total concept" of the thing, — a dangerous expedient, which leads him at times very close to the Spinozism which he wished to avoid, and annuls real possibility after all. In the second place, — what is only another aspect of the same dilemma, — if existence makes no difference to the essence of a thing, then the existent and the possible belong to different worlds. Leibniz plays fast and loose with this alternative. At one time, the possibles get what reality they have only from their being objects to the divine understanding, which serves as the connection between the world of essences and that of existences. At another, all true essences form one system, the only difference between them as to reality being in degree, and actuality or existence being simply a superior degree of reality. But this is certainly to give existence an internal and necessary relation to essence, even to make it a degree of essence.

It may seem that this review of the contrasting views of Spinoza and Leibniz as to the nature of possibility is an unnecessary statement of a well-worn subject. But there is, as I said in commencing it, a modern application of the discussion. One of the most recent theories as to the nature of judgment, — that propounded some years since by Mr. G. E. Moore, and since then accepted and applied by Mr. Russell in his *Principles of Mathematics*, — essentially depends on separating existence from the other relations or predicates asserted in judging, and putting it

in a class by itself. A proposition, according to this theory, is a synthesis of concepts; and concepts are all logical subjects, immutable and indestructible quiddities or essences, the relations between which are as immutable as they themselves. "According to the nature of this relation, the proposition is either true or false." But "what kind of relation makes a proposition true, what false, cannot be further defined, but must be immediately recognized."¹ By this refusal to define, one of the difficulties of Leibniz, that of the source of incompatibility of concepts, is avoided, at some expense of logical completeness, to be sure. Existence is one of these concepts, and things exist when they "have a specific relation" to it. All possible objects of thought are beings; but not all are existences. "This distinction is essential, if we are ever to deny the existence of anything. For what does not exist must be something, or it would be meaningless to deny its existence."²

This last argument fails to recognize that we may by such denial negatively qualify existence. However, my objection would have no weight for one holding this position, since propositions for him would be relations of entities, quite independent of any knowing mind. These entities, or 'quiddities,' as I called them a moment ago, are also mutually independent, quite like the monads of Leibniz.

Now such a theory as this is really a logical monadology of a sort; and the point that I wish to make is that it is exposed to all the antinomies and difficulties which we have found to confront any theory which divides essence from existence, possibility from reality. It is true that by taking refuge in the indefinable it avoids some of Leibniz's difficulties, especially that as to how concepts become incompatible, already mentioned, and those connected with the "sufficient reason." But the connection between essence and existence still remains to be defined and explained. Again refuge is taken in the indefinable; existence is a concept, and this relation, like all those between concepts, is

¹ Cf. G. E. Moore, "The Nature of Judgment," *Mind*, N. S., No. 8, pp. 179-181.

² Cf. B. Russell, *The Principles of Mathematics*, Vol. I, pp. 449-450; cf. also *ibid.*, pp. viii, 43-49, and *The Philosophy of Leibniz*, p. 29.

ultimate, immediately recognizable as true or false. This is mere skirmishing. No theory of judgment can justify its existence which stops at the brute facts which common sense has for ages recognized; and this is just what this theory of concepts does. If it is to make its claims good, it must go on to show some principle of order in the logical relations which it recognizes; and once it does so, I fail to see how it can avoid the self-contradiction which lies at the heart of all such distinctions of the possible from the real, or the essential from the existential.

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DISCUSSION.

DR. EWER ON THE FREEDOM OF THE WILL.

In the discussion of philosophical problems, one's conclusions depend, to a very considerable extent, upon one's point of departure. It is, therefore, always advisable, indeed essential, to consider how a problem may be legitimately attacked; and this necessity of assuring ourselves of the adequacy of our starting-point is most keenly felt in the consideration of the more concrete problems. For, in the midst of the multitudinous data of experience, it is by no means easy to exclude the irrelevant, and to observe all the essential, phenomena; and the more difficult and puzzling the way, the more necessary the compass.

This is especially true of the vastly complicated problem of human volition. Many discussions of this problem are almost valueless, because the problem is considered by itself and not in the light of philosophical methodology. This seems to be the case with Dr. Bernard C. Ewer's recent article, entitled "Determinism and Indeterminism in Motives."¹ Dr. Ewer does not explicitly state his point of departure; but it is easy to discover. In his psychological consideration of the deterministic theory of motives, he plainly places himself at the standpoint of his opponent's psychology; and, in his efforts to establish the epistemological validity of the concept of chance, he is obviously trying to escape from the logical implications of the same standpoint. For him, as for the determinist,² mind is a unity of elements externally related to each other, and consequently the problem of freedom can ultimately be interpreted only in terms of quasi-mechanical causality. In a word, Dr. Ewer approaches the problem from the existential point of view.

But this method of attack is entirely inadequate to the problem to be investigated; on the existential plane the problem not only cannot be solved, but cannot even be legitimately discussed. Such abstract procedure is doomed to barrenness from the beginning. A method of treatment more concrete than either Dr. Ewer or the determinist employs is necessary to a fruitful consideration of the question.

To establish the preceding dogmatic assertions, I shall endeavor: (1) to show the inadequacy of the existential standpoint by pointing

¹ Cf. *PHILOSOPHICAL REVIEW*, Vol. XVI, pp. 298-311.

² Cf. *loc. cit.*, pp. 300, 302. Here, as elsewhere in this paper, I use the term 'determinism' in the sense attached to it by Dr. Ewer.

out two insuperable difficulties into which it has led Dr. Ewer; and (2) to state briefly the claims of the more concrete point of view which Dr. Ewer summarily disposes of in the third division of his article.¹

Before passing to a criticism of Dr. Ewer, a few words by way of summary are necessary to put before us the essentials of his position. He divides the body of his argument into two parts. These we may, for our purpose, term the psychological and the epistemological aspects of the argument. The psychological part of the discussion² is directed primarily against the determinist, who maintains quasi-mechanical determination of the will by the motive.³ Such a position, the author argues, involves the fallacy of assuming "determinate relations of comparative strength among the desires."⁴ The truth, we are told, is: "Motives are often so qualitatively different that no exactly comparative measurement can be made."⁵ What I have called the epistemological part of the discussion⁶ is an attempt to vindicate the validity of chance as a category, and to establish freedom in this realm. Chance, we learn, is not a spurious concept, but is coördinate with lawfulness as a genuine function of thought. "'It happens' is as natural a usage as 'it must follow.'"⁷ But neither lawfulness nor chance is absolute in its significance: each is only relative. Hence we may maintain both uniformity in experience and indeterminism of the will, both necessity and freedom. These are not incompatible categories, but rather supplementary, existing side by side in experience without conflicting. This latter is the only constructive part of Dr. Ewer's paper; on its issue he rests the question of freedom.

It is not, I think, difficult to show that Dr. Ewer's first difficulty results from the false view of will and motive and their relation to each other necessarily involved in his position. He starts out by assuming, as suggested above, that the mental life consists of various mental processes, connected by the principle of causality read in mechanical or quasi-mechanical terms. And furthermore, he assumes that these elements, thus externally related, are identical with concrete experience. These assumptions lead Dr. Ewer to an absolute separation of the will

¹ Pp. 310-311.

² Pp. 300-305.

³ Such determinism is the only kind recognized by Dr. Ewer.

⁴ P. 300.

⁵ P. 301.

⁶ Pp. 305-310.

⁷ P. 306.

from the motive, and to a conception of the two as only externally related. This, however, is really the same atomistic conception which is inherent in the deterministic theory, although determinism has more difficulty in concealing its atomism. It is fairly obvious that motives which push or pull the will this way or that, as well as the will which is thus pushed or pulled, are pure abstractions and have no real existence. And, had Dr. Ewer been satisfied with maintaining against the determinist that will is not identical with the strongest motive, unless we include in motive reason and its activity in the situation in question, his contention would have been just and would have struck the vulnerable spot in his opponent's argument.¹ But, when he separates will from motive, and places the former in a sphere where it is synonymous with 'undetermined decision,' he is every whit as much in error as is the determinist. For, whereas the latter can see in moral experience nothing but a conflict of desires, Dr. Ewer gets no farther than Kant's empty sphere of pure volition; and, so far as abstractness is concerned, the hypostatization of one aspect of experience is just as good, or as bad, as that of another. Atomism is atomism, whether it be used in defence of freedom or of determinism.

At times Dr. Ewer does seem to get a glimpse of this difficulty,² and he tries to meet it by limiting the sphere within which the abstract will acts. "Paradoxical as it sounds, introspection tells me that I am compelled to do *something appropriate to the situation*, but just what that shall be I freely choose."³ In other words, I am compelled to do something, but not any particular something; I am limited to few or fewer alternatives, but within those limits I am absolutely free. Such is, perhaps, the only answer that Dr. Ewer can give from his abstract plane; but by simply limiting the sphere within which the will is completely undetermined, it is impossible to lessen the theoretical difficulty. Make the limits as restricted as you please; yet if, within those limits, the will is conceived as independent of all determination, it is conceived abstractly, just as abstractly as are the motives of the determinist. For volition, existing apart from its mental context, is a pure abstraction; and volition which determines action independently of the agent's desires and purposes is volition existing apart from its mental context. The point is, not how many or how few possibilities are present in any given decision, but how any particular act can possibly be the result of 'undetermined decision.' In this

¹ This seems to be his contention, *e. g.*, pp. 302-303 of his article.

² Pp. 303-304.

³ P. 304; italics mine. Had the author emphasized this expression, he might have noted its inappropriateness here.

connection the distinction between 'absolute' and 'relative' chance¹ is both useless and meaningless, — useless, because it is impotent to meet the difficulty; meaningless, because, if there is a realm of chance, it is *ipso facto* absolute, since otherwise it would be a realm of law.

The *reductio ad absurdum* of such atomism is that, if it be taken seriously, it renders philosophy itself impossible. The will, in a lawless realm of chance, even though this realm be as small as the fertile imagination of the indeterminists can conceive, is nothing more nor less than an absolute having no relation whatever to experience; and for every moral agent we must, perforce, assume such an absolute. In the midst of this host of outlaw absolutes, the moral order becomes disorder, and philosophy (which finds trouble enough in its efforts to deal successfully with one absolute) becomes a mere name. The only way of escape from this confusion worse confounded is to recognize that it is the result of the hypostatization of our own abstractions. *Mutatis mutandis*, determinism leads to the same forlorn result.

The second difficulty which Dr. Ewer has to meet is really the first viewed from the epistemological side. Is an 'undetermined event' anything but a contradiction in terms? Is the 'category' of chance a lawful concept? We are told, in answer, that "causality as a constitutive function of thought is certainly not absolute"; that "lawfulness and chance are both genuine functions of thought"; that "to brand chance as 'a spurious concept' is not only incorrect empirically, but it is also inconsistent with the lusty survival of the outlaw in the development of intelligence."²

It is rather difficult to answer these assertions; not, indeed, because they are true, but because it is practically impossible to attach a meaning to them. The concept of causality is very ambiguous; it has quite different significations in the different sciences. In physics, for example, it is one thing, in biology another, and in ethics and epistemology it is quite another. The assertion, therefore, that causality is not absolute, has no definite meaning unless the term causality is defined. If, on the one hand, it means quasi-mechanical determination, then we may well agree that such causality is not absolute. If, on the other hand, causality means general intelligibility of phenomena, the question concerning its absoluteness becomes a very different one, a negative answer to which renders knowledge itself impossible. Then, again, there seems to be a serious ambiguity in Dr. Ewer's use of the concept of chance. In certain passages he

¹ P. 305.

² Pp. 305-306.

employs it as a general term indicating lack of quasi-mechanical necessity; but, in drawing his conclusions respecting freedom, he seems to mean by it the absence of all determination.

If, however, we force Dr. Ewer to abide by his presuppositions, causality becomes for him a relatively fixed category, and appeal to chance as a valid concept becomes impossible. Kant long ago and with unmistakable clearness taught us that in the realm of experience causality is supreme and chance is an absurdity. And Dr. Ewer's standpoint is exactly Kant's standpoint of phenomenal experience. On this plane, determination, one might say external determination, is *ipso facto* necessary; an undetermined event is an epistemological impossibility. Hence Kant placed freedom beyond experience, since he could find no room for it in experience. Dr. Ewer's presuppositions logically force him to do exactly the same thing. But, unlike Kant, he fails to see this, and deludes himself into thinking that he has found a loophole of escape from the principle of causality within experience itself.

Presumably, Dr. Ewer does not accept Kant's realm of ghostly things-in-themselves; experience for him, as for others, is the real and the only real. If so, then must the principle of causality (using the term causality in its broadest significance) be absolute; otherwise we should have the paradox of an unknowable experience. Hence, if freedom is to be found at all, it must be sought not above and beyond the causal law, but within that law itself. That is to say, the causal principle must be made adequate to our experience, simply because it is coterminous with experience. Dr. Caird has forcibly expressed the same idea in another context: "Under the acknowledged reign of law, the world is a connected drama in which there is no room for episodes. . . . It no longer avails to assail finite science from the outside, in the way of finding exceptions to its laws, or phenomena which it cannot explain. A long discipline has taught it to regard such exceptional or residual phenomena simply as the means of correcting and widening its ideas of law. If it is assailable at all, it is from the inside, in its fundamental conception of law itself,—in its idea of that universal necessity under which it reduces all things." ¹

This suggests to us the more concrete teleological point of view, which is so completely misunderstood by Dr. Ewer. His conception of the position seems to be that it attempts to maintain at once freedom (purposive freedom) and complete determination, which

¹ *Hegel*, p. 115.

concepts, he thinks, are contradictory. His argument is, in a few words, this: The categories of all sciences are either true or not true of reality. None would dare maintain that they are not true. If they are true, they cannot be contradictory, since truth is one with itself. If psychology, therefore, tells us (as the upholders of teleology assert it does) that one mental event completely determines another, then is purposive action, and consequently freedom, impossible. Teleology is thus only another name for self-contradiction.

Two fallacies seem to vitiate this argument. The first is our old friend, the assumption that the existential point of view is the only possible one in dealing with reality. Reality, that is, is viewed as made up of a multitude of elements externally related to each other, and more or less indifferent to each other save for the principle of quasi-mechanical causality. As we have already seen, this assumption leads Dr. Ewer to a dichotomous division of experience into a realm of law and a realm of chance, — a division fatal both to ethics and to epistemology, but necessary to one who persists in trying to vindicate freedom from this abstract standpoint. The second vitiating factor in the above argument, and the one that especially concerns us here, is the evident failure on Dr. Ewer's part to recognize the methodological aspect of scientific principles. He assumes that the principles of each and every science are ontologically and eternally true apart from, and irrespective of, the principles of each and every other science. "Partial and abstract the facts of science may be, but they constitute true knowledge of reality. And, accordingly, if science tells us that in the brain or in the associative processes of the mind *A* completely determines *B*, then no designation of this fact as subordinate can obscure its inconsistency with our appreciation of its spiritual counterpart as a free decision."¹ Let us examine briefly this assumption; with it stands or falls Dr. Ewer's criticism of the teleological standpoint.

Is it self-evident that the 'facts' of science are ontologically true? If psychology tells me that all mental events are processes in time causally related to each other, does it necessarily follow that my moral life is determined *ab extra*? Am I, then, to despair of freedom? Of course, lack of space forbids anything like an exhaustive answer to, or, perhaps, a satisfactory discussion of, these questions. A few words, however, ought to be sufficient to show that something, at least, may be said in justification of a negative answer. In the first place, it is evident that ultimate reality is a vastly complicated whole (however

¹P. 311.

the principle of unity may be conceived), which may be viewed from various angles of vision ; and from different angles it may give off seemingly contradictory readings. In the second place, it is to be remembered that each particular science isolates, from this concrete totality, certain data which are its material, and which it treats as if they were the whole. This procedure of the sciences is entirely right and proper for purely methodological purposes ; indeed, it is absolutely necessary for scientific development. But, in the third place, it is never to be forgotten, when discussing the ultimate significance of scientific principles, that each science does frankly presuppose such an abstraction from concrete reality. Keeping these points in mind, we may freely admit that the principles of one science, viewed alone, often seemingly contradict the principles of another science, looked at in isolation ; there is certainly no *a priori* reason to the contrary, since such principles are merely readings from a multipolar reality. But, viewed in their relatedness as aspects of reality, these principles cannot be contradictory for the very reason that they are aspects of a single, unitary whole. To make the point more definite, take Dr. Ewer's own example above. There can be no doubt that psychology, as a science, does postulate complete determination of its data according to definite laws ; there is no psychological event which is not one of a sequence capable of explanation. And, so long as we look at the mental event as purely psychological, that is, so long as we view it from the psychological standpoint, the fact of its determination does seem incompatible with the freedom of ethics. But, when we take a more concrete view, we see that the two are by no means necessarily incompatible. Psychology has to do with only one aspect of the mental life, the time order aspect ; meaning and purpose, although they are indisputably important aspects of mind, are intentionally left entirely out of account. It avowedly looks at the mind from an arbitrarily chosen point of view, and omits the phenomena which are irrelevant for its purpose. Hence it is entirely possible that the psychological, like the physical, categories are inapplicable to the data of the science of ethics. This abstraction from concrete experience is, of course, no disparagement of the science of psychology ; its progress in recent years is indubitable proof of the wisdom of its procedure. The point here is that the science as such has to do with only a limited sphere of experience, that its principles are enunciated only with reference to that limited sphere, and that the ultimate significance of these principles is to be read only in the light of the deliverances of all the other sciences, that is, only in their reference to the

totality which we call the ultimately real. *Mutatis mutandis*, the same is true of the other sciences.

Such, it seems to me, is the answer of the teleologist to Dr. Ewer's criticism. Such, in very brief and schematic form, are the grounds upon which we must maintain that the determination posited by psychology, as such, does not *ipso facto* deny freedom. For the psychological standpoint, when properly understood, still leaves freedom a theoretical possibility; the necessity and nature of freedom are, however, a more concrete problem, determinable only by a more comprehensive view of human experience.

But the teleologist does not remain standing at the mere possibility of freedom. Having vindicated its possibility, he passes on to ask concerning its necessity and its nature. Is freedom necessary? The facts of experience, he thinks, force him to say that freedom is necessary; a satisfactory explanation of the phenomena of the moral world depends upon the admission of the validity of this concept. What, then, is its nature? His previous assumption that experience is *in toto* a realm of law forbids his hoping to find freedom in some nook or cranny where law does not obtain. Indeed, he does not want to find it there, lest unfortunately some one after him discover that even in that little realm law reigns supreme. He seeks it, and can seek it, only within the domain of law itself. And there, he fancies, he finds the category of rational purpose, which offers an intelligible explanation of what freedom means, and which does justice to the data of which it is the explanation.

Of course, the problem of freedom cannot be solved in a discussion of a few pages. It is a problem too concrete, with too many interconnections, to be disposed of in any summary fashion. The whole contention of this paper is that it cannot even be properly discussed apart from a very concrete and comprehensive view of experience, a view that is not, like that of psychology, avowedly hypothetical and abstract. But, at the present stage of our scientific and philosophical development, one may even be somewhat dogmatic in asserting that, whatever faults may be found in the various presentations of the teleological standpoint, the fact remains that the only rational solution of the problem of human volition lies in the direction of the teleological categories. For it is in this direction alone that we shall find an immanent form of freedom, freedom *in* necessity, — the only freedom to which an intelligible meaning can be attached, and the only necessity compatible with our common moral experience.

G. W. CUNNINGHAM.

REVIEWS OF BOOKS.

Pragmatism: A New Name for Some Old Ways of Thinking. By WILLIAM JAMES. New York, Longmans, Green, and Co., 1907. — pp. xii, 309.

When the philosophy which is now coming to be known as pragmatism first put in an appearance in the philosophical family, it was not given a very cordial welcome by its older brothers. It was, in fact, regarded as a sort of spurious product, — not a genuine birth, but a wind egg, as Plato would say. Or, to paraphrase Professor James's sub-title, it was looked upon as simply a new name for some old and exploded errors of thinking. Philosophy, so it had generally been supposed, meant the rule of reason: here was a doctrine that held rationalism and intellectualism to be terms of reproach, and that sought its support in something that lay beyond the reach of reason and out of which reason itself was supposed to emerge. The attempt has often been made before. Every mystic has made it; many agnostics have made it; all misologists have made it. But, hitherto at least, the attempt by means of reason to get behind reason for reason's support has signally failed. Whether such support be sought in feeling, in ultimate 'fact' or 'datum,' or in "temperament without a tongue," the outcome for philosophy has been the same: in the end they have led to the inculcation of the wise silence so far as philosophy's pet problems are concerned. Again, philosophy seeks to reduce the world of experience to unity: pragmatism fairly revels in pluralism. Philosophy tries to gather in all the loose ends of experience: pragmatism prefers an unravelled multiverse to a closely knit universe.

But, according to Professor James, the critics of pragmatism have indulged in much futile controversy which might have been avoided had they been willing to wait until the message was fairly out.¹ The doctrine has been grossly misunderstood, and its advocates treated as if they did not even possess common ordinary intelligence. Our chief interest in the book before us must therefore be to find out exactly what the message is.

It goes without saying that Professor James's volume is delightful reading. Once begin it and you will not willingly put it down until you

¹ The above remark seems, however, inconsistent with Professor James's practice of continually referring to pragmatic teachings, under the caption "the Schiller-Dewey view," as if the message were well out and were matter of common notoriety.

have reached the last page ; and then, whatever your philosophy, your first comment will be : " I have been well entertained to-night." In the arid wastes of philosophical literature, this is a rare and refreshing experience. It is easy to understand the unparalleled success which attended the delivery of these lectures in Boston and in New York last winter. But it was not alone the speaker's wit and verve and captivating manner that made the lectures go. The views expressed fall in with many current popular tendencies. Pragmatism, as here presented, delights in making plain its scorn of all *a priori* constructions, talks much of ' facts,' and at every turn coquettes with science. In fact, it declares itself to be precisely on the level of the other sciences, having no peculiar method of its own and no superior claims to certainty, being even less certain of its results than the other sciences are of theirs, in proportion as its problems are vaster. It thus affects humility and eschews dogmatism. It knows nothing for sure except that no man can know anything for sure. It is the philosophy of the open doors. Emerson once wrote that the poets were to be the philosophers of the future, for they alone, defying the demon of consistency, are free to leave all doors open to the reception of truth in all its varied guises. The pragmatist claims the privilege which Emerson would reserve for the poets.

Another reason for the popularity of this philosophy is the sense of freedom that it appears to bring with it,— a freedom that many, no doubt, will be inclined to characterize as licence or lawlessness. But it undoubtedly *has* a democratic air. It reads like the philosophy of a ' new world ' with a large frontier and, beyond, the enticing unexplored lands where one may still expect the unexpected. It appeals to one's sporting blood and one's *amour du risque*, for it is hospitable to chance. It is a philosophy in which one can take a gamble, for it holds that the dice of experience are not loaded. The older monistic philosophies and religions, as Professor James portrays them, seem to present by contrast stuffy closed systems and an exhausted universe. They seem to pack the individual into a logical strait-jacket, and to represent all history as simply the unfolding of a play that was written to its very last line from the dawn of creation. These old monistic absolutisms go with the old order of things, and they and their advocates are treated by Professor James with scorn and contempt. Pragmatism is the philosophy of the *revolté*, and there is something of the *revolté* in us all. No inconsiderable portion of Professor James's book is polemical, and the gist of his polemics may be summed up in the phrases : *À bas* Hegel and all his tribe ! *Conspuez* the Absolute !

But it must be added that, in stating the views of his opponents, "the intellectualists," Professor James gives almost invariably a caricature of their views. He seems to recognize no other alternative to pragmatism save a soft and saccharine absolutism, which one may possibly find in the writings of a few of the mystics, and chiefly the oriental mystics, but which one cannot in fairness ascribe to any of the greater idealists, from Plato and Aristotle onward. Were pragmatism the only escape from such mystic monisms, we should all no doubt espouse the cause of pragmatism; for whatever may be the difficulties of the latter, the difficulties in the way of the former are greater far. To be sure, one can find in the writings of most idealists sentences that, wrested from their context, might seem to justify Professor James's strictures; but one has a right to expect of the pragmatist the same fairness in dealing with his opponents that he himself demands when he is the object of criticism.

Finally, pragmatism finds favor through its apparent simplicity. It is not a doctrine that hides its meaning in polysyllabic profundity. Its formulas can be stated in the vernacular tongue, and he who runs may read. And yet the complaint of the pragmatists that their critics uniformly show an inability to grasp their view suggests the doubt that this clearness may be more apparent than real.

Positively stated and briefly put, the significance of pragmatism, as I gather it from the book before us, is, that it is simply the modern analogue of positivism. The pragmatist, like Comte, repudiating metaphysics, seeks to substitute a philosophy which shall be nothing but the larger and more comprehensive science, having the same modesty and the same ambitions, and employing the same methods, as all the other empirical sciences, but dealing with more complex experiences. And the cue to the difference between positivism and pragmatism is found in the development which the natural sciences themselves have undergone in the past fifty years. In Comte's day physics was the fundamental science, and one somehow expected through it to reach the foundation stones of the universe. The sciences were supposed to give a transcript of reality, even though reality was called phenomenal. Once their work of simplification was accomplished, we should have traced reality to its lair, where we could behold it in its given primeval nakedness. But with the attempt to rest physics itself upon mathematics, science made its Copernican revolution, the significance of which is now coming to be clearly recognized. Science has become humanized. The real for science is not a world of independent or interdependent atoms, but a realm of ex-

perience. Science does not lead us to the concrete, but away from it. Its results do not give us transcripts of reality, but rather a compendious conceptual shorthand to describe our perceptions with, so many convenient short cuts across the fields of experience, which are valid so far as they are convenient, and so long as no more convenient short cuts shall have been found. Its reals are not static, but dynamic; not fixed, but fluent and plastic.

Now the pragmatist would apply all this to philosophy and her problems. The conception of God, for example, is valid in so far as it provides such a convenient short cut across the facts of experience, and so long as it continues to do so without at the same time blocking up other and more serviceable short cuts. And so with all the familiar problems. There is an undoubted fascination in such an undertaking. And to one who views the history of philosophy from the outside, and sees in it simply the record of exploded systems, this may seem to be the last word of philosophy. And if I may venture a prediction, it would be that pragmatism will rapidly gain in popularity in the next few years, but that it will continue to find favor, as it does at the present time, chiefly with those who are unacquainted, or but imperfectly acquainted, with the history of philosophy. For, like its predecessor positivism, it does not solve the difficult problems of philosophy; it simply ignores them. Of course I do not mean by this remark to bring against the pragmatists any wholesale accusation of ignorance of the history of philosophy. I am simply noting what I think is a patent and significant fact regarding the *Anhänger* of pragmatism,— those who sit on the bleachers and do the rooting.

Pragmatism, according to Professor James, “does not stand for any special results. It is a method only” (p. 51). What then is the pragmatic method? It is “primarily a method of settling metaphysical disputes that otherwise might be interminable.” Whenever a dispute arises, it asks for the practical consequences of the rival views. “What difference would it practically make to any one if this notion rather than that notion were true? If no practical difference whatever can be traced, then the alternatives mean practically the same thing, and all dispute is idle. Whenever a dispute is serious, we ought to be able to show some practical difference that must follow from one side or the other’s being right” (pp. 45-46). Many philosophical disputes collapse into insignificance, Professor James thinks, when this test is applied. “There can *be* no difference anywhere that doesn’t *make* a difference elsewhere—no difference in abstract truth that doesn’t express itself in a difference in concrete fact

and in conduct consequent upon that fact, imposed on somebody, somehow, somewhere, and somewhen. The whole function of philosophy ought to be to find out what definite difference it will make to you and me, at definite instants of our life, if this world-formula or that world-formula be the true one" (pp. 49-50). And again, Professor James writes: "To attain perfect clearness in our thoughts of an object we need only consider what conceivable effects of a practical kind the object may involve — what sensations we are to expect from it, and what reactions we must prepare. Our conception of these effects, whether immediate or remote, is then for us the whole of our conception of the object, so far as that conception has positive significance at all" (pp. 46-47).

All this contains undoubtedly much excellent advice which, if followed, would eliminate mere verbal disputes, would prevent the glorification of abstractions and check the tendency to make idols of names. But so far there would seem to be nothing in the "pragmatic method" that had to wait for the genius of pragmatism before being discovered. In fact, as Professor James says, it is as old as Socrates and Aristotle. The only thing that a philosopher of the intellectualist school could take exception to is the apparent implication that the practical effects are limited to "the sensations we are to expect" and "the reactions we must prepare." But Professor James does not mean so to limit the method, for he holds that intellectual consequences are also practical effects. This being the case, it is hard to see how we have in this principle any philosophical method at all. For there is probably no philosophical dispute, however hyper-subtle the distinction upon which it may turn, that has not somewhere and for some one had practical consequences. On the other hand, thoughts have a way of dying and getting buried in phrases which then come to be used as substitutes for thinking. This is a tendency everywhere found, even, I think, in the camp of the pragmatists themselves. And in so far as pragmatism is fighting the tendency to mere verbalism and to the misuse of abstractions, there is no reason why we should not all, whatever our philosophies, make common cause with her.

But Professor James tells us that the pragmatic method means "*the attitude of looking away from first things, principles, 'categories,' supposed necessities; and of looking toward last things, fruits, consequences, facts*" (italics the author's). It means "the empiricist temper regnant and the rationalist temper sincerely given up" (pp. 54-5, 51). Here is perhaps the parting of the ways. And yet I fail to find anything in the "method," as Professor James has described it,

which justifies these assertions. What if it should prove that looking toward "first things, principles, 'categories,' supposed necessities" is itself of value in helping us as we look toward "last things, fruits, consequences, facts"? And, indeed, this is just what Professor James in his chapter on "Common Sense" and in his chapter on "Pragmatism and Religion" finds to be the case. There is an unfortunate antithesis in these assertions. Their *entweder — oder* implies the possibility of making a separation between first things and last things, principles and consequences, which would itself lead to the barren abstractionism of which Professor James complains, whichever horn of the dilemma one accepted. If, however, pragmatism does not mean to make this separation, if it is simply demanding of us all that we should be sober and patient, and show greater respect for the facts of experience, that we should never lose sight of the fact that our philosophies, one and all, are constructed to explain, to help us about in, experience, and that in building them up we all do start from actual experience and must ever keep returning to experience, — then, once more, I should think that we could all get together, and even call ourselves pragmatists, if we liked that label, and cared to wear a new name for a good old way of thinking. But surely idealism, at least since the time of Kant, has recognized this truth, and has been striving to live up to it. Professor James, indeed, interprets his Kant differently. He represents him as believing in "categories fulminated before nature began," and so, not unnaturally, finds him far removed from pragmatism and from all significant modern thinking. And yet what Kant actually undertook was to make a more searching and critical analysis of experience than his predecessors, either of the rationalist or empiricist schools, had made. And what he found was that every single significant item of experience pointed in two directions, toward the given, the received, and also toward the active, organizing, form-giving factor. Now Professor James in his analysis comes upon the same distinction. He recognizes three factors in every significant experience: "sensation," "relation," and "funded truths." In the last class he places the categories, which he holds to be fortunate discoveries of some prehistoric geniuses, and he also speaks of them as "gradually forming themselves in nature's presence." Of course no Kantian, and no idealist, will find in this a convincing and adequate account of the categories, and there is room for a real difference between pragmatist and idealist here. But that is another story. My point here is that, although the idealist may regard the categories as eternally valid principles of organization, constituting the back-bone

alike of all significant experience and of all intelligible intercourse, still he may agree with Professor James that they exist *in rebus* and not *ante res*, at least not *ante res* in any temporal sense. And the pragmatist's indebtedness to Kant seems quite obvious, and I think it hardly an exaggeration to say that without Kant pragmatism had never been. And it is hardly generous of Professor James to speak of Kant as an old fossil, and to tell us, as he does in his California address, that philosophy's path should lie around Kant and not through him. His position reminds me of a remark, more forcible than elegant, that I once heard a distinguished German philosopher make. He had been vigorously vituperating Hegel, and then, by way of recantation, he remarked: "After all, we all stand on Hegel's shoulders, and it ill becomes us to spend our time spitting on the old man's head."

That the so-called pragmatic method is not, strictly speaking, a method at all, comes out in the chapter where Professor James seeks to apply it to some familiar metaphysical problems. One illustration will suffice. Professor James is comparing abstract spiritualism with abstract materialism. According to both views the entire contents of the world are once for all given, the world is finished, it has no future. The pragmatist is asked to choose between the two theories. Since on either view the returns are all in, he finds them identical, and so he must hold that they both, "in spite of their different-sounding names, mean exactly the same thing" (p. 97). Now while in one respect these theories may be identical, and while Professor James, with certain practical purposes in view, may find them equally blighting, and hold that it is a matter of indifference which he believes, yet for all that, even pragmatically considered, they may reveal the greatest difference. For one man, holding to the one view, may find that it takes him off to the desert, there to spend the rest of his days doubled over, gazing at his umbilical and repeating the mystic "om," while another, holding to the other view, may find that it takes him to his laboratory to study the properties and the behavior of matter. That is, if one only select one's point of view, every theory will reveal some sort of practical consequences. But there is another difficulty. Professor James, after pronouncing abstract spiritualism and abstract materialism identical, adds the significant words: "I am supposing, of course, that the theories *have* been equally successful in their explanations of what is." But if the pragmatic method is to help us in deciding between these two views, it is just here that we want light; we want it to show us how we are to decide whether they have been equally successful in their explanation of what is. Perhaps Professor

James could work this out on pragmatic principles, but in this chapter where he undertakes to show us the method in operation he does not do so. And I find it the same with all the other metaphysical issues that he discusses. So, while I am ready to give all honor to Professor James and his co-pragmatists for the service they are rendering philosophy in their wise cautions, in their insistence upon remaining near the concrete, avoiding barren abstractions and verbal disputes, respecting experience and learning of it, and recognizing the matter-of-fact instrumental character of thinking, — and these are virtues which we all aim to possess, — yet when all this is accomplished, the “method” is still to seek.

But, in addition to being a method, pragmatism, Professor James tells us, is “a genetic theory of what is meant by truth.” “*The true*,” he writes, “*is the name of whatever proves itself to be good in the way of belief, and good, too, for definite assignable reasons*” (p. 76; italics the author’s). We cannot “keep the notion of what is better for us, and what is true for us, permanently apart.” I cannot see how any idealist can take exception to these statements. He takes their truth for granted; they are his birthright. Ever since Plato showed that the highest organizing idea was the idea of the Good and not the idea of Being, they have been his rightful inheritance. Wherein, then, lies the difference between the pragmatists and their opponents? Here is where Professor James finds it. The idealist, or, as he calls him, the “rationalist,” holds that truth and reality are immutable; that reality is “complete and ready-made from all eternity”; that the truth of our ideas “adds nothing to the content of experience. It makes no difference to reality itself; it is supervenient, inert, static, a reflexion merely.” “The great assumption of the intellectualists is that truth means essentially an inert static relation.” Such statements, implying as they do the separation of a world of immutable truth from a world of transient fact, misrepresent the idealistic position. The idealist as well as the pragmatist could accept the statement which Professor James puts forward in opposition to the supposed intellectualist position, namely, that “*true ideas are those that we can assimilate, validate, corroborate and verify. False ideas are those that we can not*” (p. 201; italics the author’s). To be sure, the verifying in question is sometimes referred to by Professor James as if it must of necessity be a verifying in sensible experience (v. p. 215), but in general it is not so limited.

The real difference between the pragmatist and his opponents comes out more clearly in another formulation which Professor James gives

of his conception of truth. “ ‘The true,’ to put it briefly, is only the expedient in the way of our thinking, just as ‘the right’ is only the expedient in the way of our behaving” (p. 222; italics the author’s). The implication here, and throughout the discussion, is that since the true is only the expedient in the way of our thinking, we can tell what is true in a given case by asking what is expedient. Here the idealist finds a pitfall. He might accept the formulation given above, but he would always be careful to add, ‘expediency’ here means expediency on the whole and in the long run, and he would point out that just because this addition must always be made, we have not in this statement about truth discovered a principle which is of any direct application, except within a very narrow range of experience. Professor James, indeed, makes in one place this same addition, but he seems to think that this does not in any way prevent the direct applicability of the principle involved. Now so far as expediency means present felt expediency, it can be directly applied to concrete cases, and very often truth is used to describe little if anything more than just such felt expediency. But in those cases where expediency must mean more than this, and they include practically all of the metaphysical questions, it cannot be directly applied; for one cannot now grasp the total vision which would be necessary in order to know what is going to prove expedient in the long run. In other words, it proves just as difficult to make practical use of such a principle as it is to make use of the intellectualist principle which Professor James condemns; for it also makes tacit appeal to the all-wise knower, call him the Absolute or not, who stands in the background and whose judgments are the truth. That is, the statement given may be true, but in order to use it we need to know more about the nature of truth, and we need a method which will enable us to make sure of our steps in our approach toward the desired goal. I can make my point clearer by referring to the instructive parallel in Professor James’s definition: “just as ‘the right’ is only the expedient in the way of our behaving.” This may be enough to tell us, for instance, that honesty will always prove in the long run an expedient way of behaving. But if one should ask oneself in a concrete situation, “What is the honest course for me to take?” and if, inspired by this definition, he should say, “To answer this question I need only ask, What is the expedient course for me to take?” well, we should all give such a person a wide berth in our commercial dealings. It would be no doubt a perfectly safe procedure, for one who possessed all wisdom, but not for us mortals.

And this brings me to what is perhaps the real root of the difficulty that some of us find in the pragmatic position. The pragmatist writes as if he thought that, when he had pointed out the obvious truth that all of "our psychological ascertainments of truth are in mutation," he had shown at the same time that truth itself is in mutation; that, when he had given a psychological account of a truth-getting process, he had brought to light all that we mean by truth. And so he speaks of truth as something that "happens" to an "idea," and says that the truth of an idea is an "event" or a "process," "the process, namely, of its verifying itself." Now is there not another meaning of truth which the pragmatist and all the rest of us recognize, and upon which we lean when we attempt to comprehend the verifying process? Truth, in the sense I refer to, while not "an inert static relation," has none the less, while thoroughly dynamic and immanent in the experience process, if one take experience in the pregnant sense, a perfectly definite, fixed, and unalterable character. When one asks for the truth regarding any situation, what he is trying to grasp is some definite relation between his ideas, and between his ideas and experience as focussed for him in the situation he is confronting, which even now obtains, and which, as truth-seeker, it is his business to find out, which is the meaning and truth of that situation, whether or not he has discovered it, and in advance of the search and the processes of verification. If one could only grasp this relation, one would be, so far as the particular situation in question is concerned, where "one ought to be mentally." And this is not, as Professor James holds, "an idea abstracted from the concretes of experience and then used to oppose and negate what it was abstracted from" (p. 229). It is the idea which lives in the concretes and gives them their meaning; it is the idea by means of which we break through the charmed circle of solipsism.

And yet I am not at all sure that we have even here found any real difference between the pragmatist and his opponents; for the pragmatist is an elusive person. Just when you think you have caught his meaning, you find him saying something that seems to take it all back. After Professor James has apparently confined the meaning of truth to the psychological process of truth-getting, made it an event, a process of verifying; and after he has pointed the finger of scorn at those who hold that truth is immutable, that with regard to any situation it is a relation that obtains prior to the process of verification, that is now and here real and ought to be discovered, — he writes: "When new experiences lead to retrospective judgments, using the past tense,

what these judgments utter *was* true, even though no past thinker had been led there" (p. 223).

Is not this bringing back through the window what he had previously thrown out by the door? For if this statement is true, must it not force us to say that the truth of any situation is, in advance of all truth-getting processes, a relation that obtains once for all, and that includes all that ever shall be ascertained with regard to that particular situation? And if "the Absolute" can be admitted as a possible hypothesis, and Professor James tells us that belief in an Absolute is useful in giving us our moral holidays and in so far must pragmatically be regarded as true, then must it not also be conceded that the absolutist's conception of truth may be the true conception?

Professor James's volume is interesting and stimulating throughout, and it is needless to add that it contains a deal of practical wisdom and much useful advice which all philosophers would do well to heed. And it seems to me to be much stronger in what it affirms than in what it denies. But as the positive doctrine stands, I think it lacks body. It needs the support of some more systematic philosophy than that which is here but roughly sketched. It could be taken up into and absorbed by idealism with mutual advantage both to pragmatism and to idealism. Perhaps Professor James has some other philosophy which will round out and complete the pragmatistic suggestions that the volume contains, — and there are some passages which imply that such is the case. If so, we should greatly like to have that philosophy brought to light.

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Geschichte der Philosophie als Einleitung in das System der Philosophie. Erster Teil: Von Thales bis auf die Sophisten. Von WALTER KINKEL. Giessen, Verlag von Alfred Toepelmann, 1906. — pp. vii, 274 and 76.

The history described in the above title has been planned by Professor Kinkel on an apparently extensive scale. There is nothing in title or preface to indicate that the work is to be confined to ancient philosophy. Taking the period covered by the first volume as the basis of measurement, — *i. e.*, from Thales to Protagoras, say 150 years, — a long row of volumes will be needed before our contemporaries are fairly treated. It is evident that the discussion of certain periods must be curtailed, if the magnitude of the work is to be kept in reasonable or symmetrical bounds.

Kinkel writes from a special standpoint, viz., from the standpoint of an introduction to systematic philosophy. While this bias of interest is here and there apparent in the account of the Pre-Socratics, one would suppose that the Post-Socratic philosophy would require, from Kinkel's standpoint, a relatively more detailed discussion. For the interests of systematic philosophy, the Pre-Socratics have little to offer compared with Plato and Aristotle. Besides this particular standpoint of treating the history of philosophy as a general introduction to systematic philosophy, a method which ought to be serviceable to every student of the subject, Kinkel has in mind a particular system, which still further narrows his interest and his view. He comes from the Marburg School of Philosophy, and writes with the bias of that school. His views, not only of the general significance of the History of Philosophy, but also of the fundamental problems of systematic thought, are essentially identical with those of Cohen and Natorp. This bias shows itself distinctly in his criticisms of the Pre-Socratics, especially in the criticism of Parmenides and the Sophists. Inasmuch as the primary aim of the work is to serve as an introduction to systematic philosophy, the critical examination of historical evidence and philological details receive a minimum of attention. Almost all biographical data are omitted. The chief secondary sources, however, — Brandis, Zeller, Gomperz, Diels, Rohde, Usener, Boeckh, — have not been neglected, and the work bears unquestionable evidence of painstaking, discriminating scholarship. Further, the author writes not merely for the specialist in philosophy, but for the general public. He takes the old Greco-Roman view that philosophy is not merely a theoretical discipline for the satisfaction of purely scientific ends, but is essentially a practical *rationale* of life, a reasoned morality and religion.

In the opinion of the reviewer, the work is open to several serious objections. In the first place, any history of philosophy that is planned on so extensive a scale as this, can ill afford to omit biographical and critical details, or such references and citations of evidence as are exacted by a trained scholar. For after all, the book is a book for scholars and not for the general public. It is in no way popular, either in style or in content, and its bearings on problems of immediate popular interest are not readily apparent. Another objection applies rather to the arrangement of the contents of the volume. The notes are placed in an appendix, pagination of which is not consecutive with the main body of the work, and this makes the reading of the notes in connection with the text awkward and tedious.

It also complicates reference to the notes by page. Further, the fact that the author holds a brief for Neo-Criticism is apparent in his evaluation of the Pre-Socratics, especially in his arraignment of the sensationalism of the Sophists and his high praise of the idealism of Parmenides. When George Grote wrote his famous chapter on the Sophists, he held a double brief,—his political bias towards democracy and his philosophical bias towards sensationalism,—but he wrote with so much learning and real insight that a completely one-sided account of the Sophists, such as Kinkel's, ought nowadays to be impossible. The only point in Grote's defence which is quoted with approval in the author's notes is that of the Sophists receiving money for instruction. As to the Sophists' doctrines he (Kinkel) says: "Their philosophical theories are through and through pitiable, yes, in spite of every good intention, harmful and destructive" (p. 265). "The Sophistic movement is a morbid aberration of the human mind, the appearance of which is not peculiar to a single age or to Greece" (p. 274). These hostile criticisms are directed mainly to the sensationalism and subjectivism of the Sophists. The relations of Sophistry to Pre-Socratic dogmatism, polytheism, the rise of logic, post-Socratic scepticism, or to the science of rhetoric and the public life of the time, are left out of consideration. In evaluating a historical movement, it would seem to be axiomatic to say that it must be measured, not merely in terms of values now current, but also in terms of the thought and conditions of its own age. No doubt the author would reply that his history is written in the interest of systematic philosophy, and movements are therefore evaluated with reference to their systematic bearings. The reader will still feel, I think, that the author's standard is ultra partisan.

Apart from these objections, the book has many excellences which entitle it to the favorable regard of historians of philosophy. The introductory chapter, on "The Scientific and the Primitive Consciousness," is a very clear account of certain aspects of the beginnings of culture. Kinkel explains the slow process by which the concept attained its purely spiritual character, how the concrete sensible elements of knowledge, in becoming conceptualized, left traces of the process in language (*cf.* German *Ur-sache, Grund, be-greifen*, etc., p. 9). In the earliest stages of the evolution of knowledge, causes are seen, felt, and heard. Primitive concepts were adjectives, *i. e.*, either attributes of things or actions. Because man had not arrived at the meaning of the pure concept nor had reduced phenomena to the regulation of law, he was driven to supplicate fate, *i. e.*, the accidental, undeter-

mined in the world-process. His happiness and well-being were dependent on powers outside himself. These powers were endowed with personality or quasi-personality, as demons, with which the primitive man was obliged to acquaint himself. Sacrifice was a contract between the suppliant and the demon. In this way it was first practical and moral notions that were developed and given sensible embodiment in a demoniacal or divine being. And as moral notions are not conceivable apart from a will, therefore when reflection was turned to morality and the rudimentary concepts of the moral life were given embodiment, it was necessary that they should become personal. Practical and ethical considerations are consequently the most significant facts in the early evolution of religion, the doctrine of demons and deities. "The first Object," as Kinkel quotes from Körner, "on which the human spirit of investigation exercised itself was the universe." The religious explanation was followed by the sensualistic explanation of the Ionians, who discovered the unity of the world in the unity of nature. Later the unity of the world was discovered in the unity of thought. The old problem of 'the one and the many,' resolved by the poets and the people through the interpolation into reality of mythical wills, was resolved by Thales and the originators of science through the new conception of living matter (Aristotle points out the influence of myth by connecting the Thalean water with the mythical Okeanos), by Pythagoras through a semi-idealistic principle (mathematical), by Plato through a purely idealistic principle, the hypostasized concept. In the reasoned progress of systematic thought, from myth through materialism and sensualism to pure idealism, Kinkel sees the true goal of the evolution of philosophy.

In the sections on "The Poets and Artists" and "The Physicians and Historians" (pp. 33 ff., 88 ff., 228 ff., 240 ff.), very little is gained from the author's own standpoint of an introduction to systematic philosophy. The citations of views there given are interesting and valuable in themselves, but are scarcely justified by their bearings on the main thesis of the work. Gomperz has written such chapters in a most brilliant and effective way, but his aim was to disclose the general intellectual conditions under which speculation grew. This purpose was accomplished by Gomperz in an illuminating fashion (*cf. Greek Thinkers*, Vol. I, Bk. I, chap. ii; Bk. II, chap. vi; Bk. III, chaps. i and viii), but from the nature of the case, it was bound to be a very voluminous undertaking. In Kinkel's work these sections might be excised without any material loss to the book.

In his discussion of the Eleatics, Kinkel is very appreciative of their

services to both metaphysics and ethics. He finds that the Eleatics discovered the unity of the material cosmos in the unity of thought, and the unity of the moral world (referring, apparently, to Xenophanes, p. 133) in the unity of God, and so they are held to have prepared the way for Plato, as they no doubt did. In the pantheism of Xenophanes, the events of the cosmos are the life of God, and in a certain sense Xenophanes used the idea employed by many Pantheists, that the world is the *Sensorium Dei* (p. 137). The individual gods enumerated by Xenophanes are not in contradiction with the spirit of his monotheism, but in the interpretation of Kinkel they are revelations of the unitary deity. The chief motive in this Xenophantic pantheism Kinkel conceives to be æsthetic (p. 138), a view which I regard as more than questionable. The evident motive is rather ethical, which saturates the few Xenophantic fragments through and through, as the author later points out (p. 142). It seems to me also doubtful whether one may go so far as Kinkel does, in interpreting the god of Xenophanes as the cosmic reason (p. 139), or sunder his thought quite so sharply from the hylozoism of his contemporaries. Kinkel calls him the "first exponent of the theoretical idealism" (p. 142). As Xenophanes is characterized as the founder of idealism, who approached the explanation of the cosmos from the hypothesis of a divine Absolute, so Parmenides is characterized as the real discoverer of the Concept of Being. Neither of these statements can be made without qualification. Parmenides, in making Being unchangeable, did away with the conception of time in the realm of pure Being. Being and thought are one, *i. e.*, thought in the sense of the concept. But as the concept, which is the norm for mind and being, is not subject to time-limitations, time must be referred to the region of opinion (*δόξα*), *i. e.*, to the region of sensible or phenomenal reality. Kinkel agrees essentially with Brandis and Natorp in their idealistic interpretation of Parmenides. Zeller and Diels, on the other hand, are nearer to the literal testimony of the fragments in their view that the Parmenidean Being is corporeal and spatial. As Parmenides excluded the notions of time, motion, and plurality from Being, the sensible world must logically fall outside the realm of Being in the realm of illusion. This part of the Parmenidean philosophy, — the *δόξα* of the poem, — is not very satisfactorily handled by the author, the fault being more in the text than in the interpreter. The sections on Pythagoras and Zeno, two very obscure and difficult subjects, are extraordinarily suggestive and valuable.

WM. A. HAMMOND.

Synthetica: Being Meditations Epistemological and Ontological.

By S. S. LAURIE. London, New York, and Bombay, Longmans, Green, & Co.—Vol. I, pp. xi, 321; Vol. II, pp. x, 416.

These volumes constitute the material of the Gifford Lectures, delivered at the University of Edinburgh in 1905 and 1906. The lectures as given were based chiefly on the second volume, to which the first may be regarded as introductory, containing the foundation and justification of the religious view which the author seeks to develop.

At the outset it must be confessed that the task of the reviewer would have been greatly lightened, and the path of the reader made much easier, had Dr. Laurie chosen a different literary medium than that of "Meditations" for the expression of his thought. Regard for a rigorously clear form of exposition would have resulted in the simplification of many passages as well as the elimination of numerous repetitions. The author also has a tendency to construct for himself an elaborate terminology quite his own, and to employ unusual words when those of more general acceptance among philosophical writers would often have served his purpose equally well. These defects are the more to be regretted, as Dr. Laurie, at his best, is the master of a style which is clear, forceful, and not wanting in a note of distinction.

Turning from the literary form to the philosophical method of the work, one immediately discovers that it is an attempt to develop a metaphysical and religious system by the analysis and criticism of the processes of human knowledge. The author endeavors to trace the development of knowledge from its simplest beginnings to its culmination in an "Absolute Synthesis" of the sphere of Man's experience. In this development three grand stages are recognized. The first and lowest is that of "Pure Feeling," which has as its object "Universal Unconditioned Being." Feeling is the "root-character and function" of the conscious subject. The second stage is that of Sensation, which in its highest form of "Attention" marks the limit of animal intelligence. "The total object in sense is at this stage beheld, received, and reflexed as a single coördinated total" (Vol. I, p. 43). But the qualities of the object are here only unified "in and for the sentient subject, not by it." This is the stage of consciousness, not of self-consciousness; the function of mind is "reflexive" and "synoptic," not "active" and "synthetic." The third and final stage is that of Reason, or "Will-reason," as Dr. Laurie is fond of calling it. Feeling and sense are therefore completed by "Pure Thought (the Dialectic)." The new potency or "Force" which now appears,

and is the essential element in all self-conscious knowledge, is sharply distinguished from "Conation." Conation is "passive activity," whereas Will is "active activity." The "Dialectic" contains within itself different degrees or moments. Its most rudimentary act is "Percipience," the presentation to consciousness of a "discriminated unit." The second moment is a synthesis of percepts, a "sense concept," while its final resultant is a "*rational synthesis.*" "Particulars and apparent contradictions are woven into a reasoned unity; and it is only now that we are entitled to say: The Absolute is a System—a One *in* Many" (Vol. II, p. 48). The "True Absolute," as the reasoned unity of man's experience, is distinguished from the "Absolute as containing the Infinite." The latter is only an ideal of the imagination "which we *must* affirm; and then let alone"; it is "immeasurable," a "*transcendent, outlying fact.*" Throughout Dr. Laurie insists that our Absolute, the only Absolute we can know, is the "Absolute Synthesis of Experience"; a synthesis of "Being-Absolute" is forever beyond us, though the *fact* of its existence is known.

Each ascending plane of mind, we are told, contains the lower, "which it will illumine and not cancel." Whether there is a sufficient insistence upon the fact that the higher is implicit in the lower, is a question which will perhaps occur to many readers. At times there is a suggestion of such a sharp sundering of the stages as to imperil the principle of continuity. How, according to the author's account of knowledge, one may ask, could mental evolution be an historical process? Is animal "conation" wholly different in kind from human "spontaneity"? Can such a sharp line be drawn between consciousness and self-consciousness? In justice to Dr. Laurie, it must be remembered, however, that he is presenting the logic of knowledge, not its genetic psychology.

As regards the designation of the system here developed, it is frankly called "Natural Realism." The "Real" is "the concrete presentation of things in Time and Space." All presentations, as presentations are equally valid. "Their truth or reality depends on whether or not they are presentations of existence subsisting independently of a particular mind, and the test of this is whether they would, under normal conditions, be experienced by the *species* to which the particular individual who experiences them belongs; in other words, whether they are universal or objective (in that sense of this latter word in which it means universality)" (Vol. I, p. 46). Stating his realism in terms of subject and object, Dr. Laurie tells us

that the subject "is a Real by virtue of the object as reflected into it, and the object, again, attains to its fulness and completion in the system to which both belong only in the subject" (Vol. I, p. 84). The categories are conveyed to us "by means of the things in which they exist." In this way he attempts to break down a "crude dualism."

The theory is, of course, pluralistic. Pluralism, it is admitted, "makes trouble" for philosophy, which "always seeks The One." But as it is the business of philosophy, not to avoid trouble, but to take account of all the facts, pluralism must be bravely faced. The principle of negation is invoked to solve the contradiction of the "One" and the "Many." The "Universal One" can attain self-determination only through a process of negation which gives rise to the many individuals of finite experience. The historical parallel of this pluralism is most completely found in the philosophy of Leibniz. Indeed, Dr. Laurie makes frequent use of the term "mind-matter monad." But, unlike the monads of Leibniz, those of our author are "all set round with open windows."

When the reader comes to the religious interpretation of this philosophy, he finds that there is no attempt at a demonstration of the existence of God in the sense of a logically binding proof, but only in the sense of a "pointing out" of His actual presence in the world. God must be found in "the total actual," not in any "single abstraction." God is another name for "the ultimate synthesis of experience." Man therefore finds God in his own spirit, in the sense that he perceives his own self-conscious life to be "God feeling and thinking His finite externalization in and through a finite." In like manner, other beings too, in fact all individuals of whatever rank in the hierarchy of being, reveal God according to their capacity. "To each ascending plane of finite mind the infinite Object, which is God, gives Itself to the extent of the growing finite capacity of recipience" (Vol. II, p. 84). Shall we call God personal and self-conscious? The limitations of our thought are here frankly confessed. To call God Absolute Spirit appears to Dr. Laurie to be dogmatism. On the other hand, he says that "if it be not a person it contains personality; if it be not a self-consciousness it contains the potentiality of self-consciousness" (Vol. II, p. 97). The only positive predicates we can apply are drawn from the finite universe. The predicates of goodness, justice, love, etc., are applicable in the sense that they are involved in that process "whereby ends are achieved in the souls of men."

The "Meditations on Man," which occupy the last half of the

second volume, include discussions of Ethics and of the State. The treatment of ethics presents the general view of the author's *Ethica*, and contains some excellent reflections upon ethical theory. *Æsthetics*, it may be said, receives attention in a meditation of the first volume entitled "God Immanent as the Beautiful." It is, I venture to suggest, Schopenhauer, not Schiller, whom Dr. Laurie seeks to recall in his "Note on the Sublime" at the end of the chapter.

The last five "Meditations" deal with the problems of Evil and Immortality. The most significant feature of Dr. Laurie's theodicy is his courageous insistence upon the necessity of a modification of the traditional conception of God by recognizing that he is under limitations, or "in difficulty," to use the author's phrase, in the carrying out of his plans for the world. The necessity of such modification is found in the fact of "superfluous pain," that is, pain which, so far as our best insight goes, "might have been withheld without detriment, nay with positive advantage, to the purpose of man's existence as a rational and ethical being." It is pleasing to find relief from the customary theological method of dealing with this problem. The customary method, it may be said, consists in an attempt to refute what we do know by an appeal to what we do not know. The practical effects of such a change in our inherited conception seem to me to be wholly on the side of the change. Men find it increasingly difficult to worship an omnipotent Being who conceivably might have removed from the world evils which their best judgment declares to be inimical to the realization of the highest values they know. But they may work together with a God who is struggling, albeit "in difficulty," to realize these values. Nay, all that is chivalrous and noble in the human spirit is challenged to such coöperation.

The discussion of immortality seems to me somewhat less convincing than the treatment of the problem of evil. Dr. Laurie is inclined, I think, to lay too great stress on the general belief of mankind. In particular, I should question the historical truth of the statement that man has felt assured of immortality "most of all in the most advanced stages of culture." This seems hardly consistent with the history of thought in certain periods of ancient civilization, or with the facts of mediæval and modern life. The development of culture since the Renaissance has been attended with a large increase of doubt. As a rule, too, the unthinking masses go on their way with an easy assurance, while those who question and doubt belong, on the whole, to the culturally select class. I am not urging this criticism as an argument against immortality, but am simply concerned with a ques-

tion of fact. I must confess, however, that I have little confidence in an appeal on such a question to popular sentiment, the less so in view of the manner in which this sentiment is commonly generated. It is usually the result of dogmatic teaching, given at such an early age and with such seemingly weighty sanctions, that there can be no possibility of the natural growth of sentiment on the subject.

In dealing with this problem, Dr. Laurie seems inclined to affirm an unqualified 'either — or.' Either personal immortality or "God is bankrupt," with pessimism and racial suicide as the logical outcome. Does not this sharp antithesis disregard various attitudes which have been, and still are, successfully maintained in practical life? Is it not possible, for example, to believe in and labor for values which may be conserved otherwise than through a continuance of the consciousness of the individual? Is it not possible also to take a less anthropocentric view than that which underlies this portion of the author's religious philosophy? We little realize, perhaps, the forms of belief to which the human spirit can be successfully schooled without losing its vigor or its nobler qualities, nay, with possible gain to its heroism and worth.

Naturally a work which gathers up the ripe fruit of years of reflection on the part of one who has earnestly striven to think things out, must at numberless points stimulate to discussion. I will, however, in conclusion, merely touch on one other point in Dr. Laurie's teaching. This is his doctrine of the "Unconditioned."

The Unconditioned, according to the author, is given at the lowest stage of conscious life, where it appears as the object of "pure feeling." The fact of indeterminate being beyond the range of experience is, we are told, also implicitly recognized at all stages of knowledge. Finally, the Unconditioned appears again, after the "Dialectic" has reached the limit of its finite possibility, as the object of supra-rational, mystic intuition. But, in the first place, are we justified in regarding the object of even rudimentary feeling as unconditioned? Does not all feeling have a content more or less specific? But even though we admit the author's contention in this matter, can the verdict of rudimentary feeling be allowed to stand against the fact that at the higher levels of experience the object is always found determinate and conditioned? The categories, Dr. Laurie insists, are all objective; they exist in the "Given" as well as in the conscious knower. And the lower experience, too, is not taken up unchanged into the higher, but is "illuminated" by it. The obvious conclusion would seem to be that to primary feeling, in the author's sense, being

is unconditioned only because the feeling is too crude an instrument to grasp its determinate quantitative and qualitative conditions.

Again, do the categories of the Dialectic, which condition all our conscious experience, hold good for all possible extensions of experience? If they do, then that which is now beyond actual experience is already determinate and conditioned. The fact that our experience is never complete and all-embracing does not warrant us in saying that what is beyond it is, *in se*, unconditioned. If I am correct in interpreting the logic of the author's position, we can legitimately speak of a "Whole" of being which we as finite intelligences may never, indeed can never, completely know. But we have no warrant for declaring it to be unconditioned.

Dr. Laurie's Unconditioned combines at times the doctrines of Pure Being without predicates and the Unknowable. Quite in the manner of Hamilton, Mansel, and Spencer, he insists that to know is, *ipso facto*, to limit or condition, and so to "cancel" an Unconditioned. Why not regard the process of knowledge as the interpretation of an already conditioned? This, as I have suggested, would seem to be the logical result of the author's own doctrine of the objectivity of the categories.

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Philosophie der Botanik. Von J. REINKE. Leipzig, J. A. Barth, 1905. — pp. vi, 201.

The title of this work is justified only in so far as the author presents the more general questions discussed in the botany of the present day. This, it must be admitted, he does in a fairly complete manner; yet, in so doing, he includes much that would not ordinarily be comprised under the term 'philosophy,' and at the same time omits much that should be discussed in order to make the title appropriate. In fact, he quite neglects to go into those more important and distinctly philosophical questions to which certain problems that he does discuss really lead him. However, the book is written from a distinctly metaphysical point of view, but metaphysical, chiefly, in the sense in which the term is used by so many empiricists as a word of reproach for the use of imaginary and non-verifiable entities. Such a metaphysical element in the present case is the "Dominant," which our author introduces as a "force" akin to intelligence, but yet not conscious in nature, and which he finds necessary, as he thinks, in order to account for certain phenomena, not only in plants, but also in animals. It is this acceptance of "Dominants," etc., that accord-

ingly places him in that group of writers known as the 'neo-vitalists,' a group whose point of view the reviewer has previously had occasion to oppose, as he does also in the present case. These points will be made clearer by taking up the book somewhat in detail.

The author presents that which he regards as his philosophical and critical point of view in the first two chapters. Thus, in Chapter I, entitled "Aufgaben," after a few trite statements about a philosophy of botany having a critical purpose and being a science of presuppositions, etc., he reviews traditional epistemology somewhat, and accepts the realistic position. For this partiality an interesting, though perhaps not convincing, reason is given, namely, that were not the knowing-faculties of man capable of giving the truth, then could the organism not continue to exist; since the knowing-faculty is an adaptation, it must be truth-giving.

In Chapter II, on "Facts and Hypotheses," it must be admitted that some good points are made. Science is not constituted by an accumulation of facts alone, but, at the same time that these are necessary and must be of such a nature as to allow of generalization, there must also be another, a "speculative" element, the hypothesis, to bind them together, etc. In fact, directing his argument against a well-known school, our author states that a science free from hypotheses, either as working-means or as means of completion, is an impossibility, at least at the present time.

In Chapter III, on "Causality and Finality," the purpose is to show by certain general reasons, which are expanded in subsequent chapters, that physics and chemistry do not suffice for the explanation of the organism.

Thus, in Chapter IV, entitled "Die Kräfte," he develops this point of view. The concept "force" receives attention here; it is defined as "whatever is effective in nature," as "whatever brings about changes." Undoubtedly, our author says, the term designates a causal relation, and, since in any case the essential nature of cause is unknown, it is made to include psychical as well as physical forces.

However, different kinds of "forces" are distinguished as present in the organism, those, namely, which do mechanical work, the energies, and those which do not, the "nicht-energetische Kräfte." These last concern the organism as a whole, and are divided into "System-forces," "Dominants," and "psychical forces." The first depend on the structure of the organism, on "system-conditions," and fall, together with the energies, under "mechanical forces"; but "system-conditions" are only qualitative, they are not quantitatively measurable, they are not energies.

However, it is with the second class, the "Dominants," that our author is most concerned; indeed, it is this concept especially that leads him into a series of difficulties and inconsistencies. The "Dominant" is very similar to, if not identical with, the "Entelechy" of Driesch; it is defined (p. 41) as the intelligent self-building force of the organism, without analogy in the inorganic world, since here, it is asserted, things cannot build themselves.

The third group, the "psychical forces," include not only those which already are, but also those which can be, in consciousness.

It is in virtue of the presence of either of the first two or of all three of these "forces" that opportunity is found for causation of a "final" nature, and, our author insists, it is as much a scientific duty to discover relations of "finality" as it is any others. However, of the three, the "Dominants" are made to play the most important rôle biologically. The author's proof for them is in substance as follows: — The organism is a system whose properties are different from those of the inorganic world, and which the energies alone cannot have "brought forth"; but they must have a sufficient cause, and this rôle can be filled only by some intelligently working "force," here called the "Dominant." The weakness of this argument is evident. It consists in the assumption that energies in coexistence in a system act only additively, an assumption which is contrary to the well-known and frequently found non-additive results. *With this kind of action granted*, — "creative synthesis" I have called it elsewhere, — then all the properties of the organism are completely determined by and originate from the energies, and no place is left, scientifically, for "forces" like "Dominants" or for relations of "finality" in the usual sense of that term.

The remaining chapters are more technical. Thus, in Chapter V the cell, its parts, functions, etc., are discussed. Preference is expressed for a dynamical theory of life as opposed to a morphological one of pangenesis, etc.; but, in contrast to this display of good judgment, inheritance is made to depend on special forces, namely on the "Dominants," which are now stated to exist in the chromosomes.

Chapter VI is rather methodological; the question is raised: What characters distinguish the organism from other things? The answer given thereto is that life is not simply a chemical problem; it is this, but also more, for it is characterized by a unifying bond, a purposefulness. Our author here takes the vitalistic position. But the reader would be disappointed if he should therefore expect to find some kind of consciousness accepted as present in plants and lower animals, for this is explicitly denied, as are indeed all panpsychist theories. Even the "Dominants" are not psychical, though they are said to be intelligent

(p. 84); but this statement is followed by another which denotes them as an x in plant life, and admits their possible reduction to other "forces."

Chapter VII deals with the "Form of Plants." Morphology shows a correlation of parts, etc., which is the ground of "finality." The complete scheme is, then, that the "Betriebsenergien" (physical and chemical) work in combination with the "System-conditions" to preserve life, etc., but are guided by the "Dominants." These, therefore, control the "Organisation-höhe," and it is with this that "worth-judgments" and classification are concerned.

Chapter VIII is on "Adaptation." This also is made to depend on the "Dominants"; it is another case of "finality" in relation either to other plants, or to animals, or to inorganic environment. All adaptations demand an adaptation-ability, which is itself an adaptation, the most fundamental of all. Mutations are accounted for by the scheme, "System-conditions" and "Dominants"; they are held to be conditioned from within and not from without.

Chapters IX, X, XI, and XII all concern the Theory of Descent. That the living comes only from the living is regarded as the fundamental principle of biology, but this law of continuity of descent must be supplemented by the law of change. Every theory of descent must rely on palæontology, for living organisms give only very limited evidence. Touching on mutations, our author thinks that many of these have no special use, and that in any case their infrequent appearance decreases their value for phylogenetic development. In fact, de Vries's views are called a "fanciful structure of airy hypotheses."

In Chapter X, hybridization, sexuality, etc., are discussed; and then in Chapter XI there is a return to the question: Are the facts sufficient to justify the theory of descent, and if so, what is the scientific value of this? It is answered, that the theory gives a picture of the relations of organisms to each other. But the phyletic process demands a starting-material with primitive organic properties. The original cells must, too, have been both many and yet dissimilar; they must have lived exclusively on inorganic material, and they were asexual. Progression from these was possible only through internal impulses (and not through external, as Darwin would say), *i. e.*, through the "Dominants"; by these alone could a purposefulness and an adaptation-ability be guaranteed from the start. The conclusion is reached, that, after all, extraordinarily little is known of the how and why of phyletic development.

Chapter XII, on the "Origin of Life," is admittedly speculative. Three hypotheses are considered: (1) That life on the earth is eternal,

but this is rejected ; (2) that life is eternal in the universe, but has been brought to the earth ; but, if this were the case, it should be occurring now and yet is not, so this is not accepted. (3) The view therefore seems necessary that life has had a beginning on the earth, not repeatedly, but only once, and yet under the influence of organizing "forces" which were not chemical or physical in nature, and which gave the possibility of reproduction, development, and inheritance. To my mind, this account is hardly easier to understand than the first two ; it may be consistent with the theory of "Dominants," if these be granted, but in that case the real problem is simply transferred to them. Indeed, it reveals both the artificial and the superficial nature of such an hypothesis, and suggests the return to that which is the simpler and more workable scheme, namely, that so-called vital properties are, some of them, the additive, others, the non-additive or "synthetic creative" result, of the energies which coexist here and nowhere else to form that system which is called the organism.

As might be expected, however, Reinke does not accept such an "Urzeugung," as he calls it ; for he finds that it meets with the general difficulty that it demands the formation, previous to the organism, of certain substances which are the products only of the organism. Accordingly, he acknowledges the belief in a creation of living things by some kind of an intelligence, perhaps cosmic in nature ; yet (p. 195) he would retain the complete validity of natural laws and a thorough-going causal nexus. The question must then be asked : Is not one of these, either the intelligence or the laws, superfluous ? For scientific purposes I believe that only one is necessary ; but our author, in order to make his two-fold system work, argues that, for example, human intelligence can "construct" things and yet natural laws remain intact in their operation. The evident reply to this is : Is not human intelligence, on the basis of such an *incomplete* analysis of the problem as that given here, to be necessarily regarded as following the natural law and, therefore, as an epiphenomenon ? I think that it is. But this view is seen to be conditioned wholly by stopping with and using such an insufficient analysis as a basis for conclusions ; and it leads to the conviction that, for the consistent and satisfactory solution of such problems, a more penetrating and genuinely metaphysical method than this must be employed. In just this respect, then, the author has failed to improve an opportunity for giving a real philosophy of botany and of biology, instead of which he has given the poetry of "Dominants," etc. His contribution is, then, while interesting and of some value in parts, only mediocre and philosophically incomplete.

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NOTICES OF NEW BOOKS.

The History of English Rationalism in the Nineteenth Century. By ALFRED WILLIAM BENN. London, New York, and Bombay, Longmans, Green, & Co., 1906.—Vol. I, pp. xxviii, 450; Vol. II, pp. xii, 533.

The appearance of this work suggests an increasing tendency on the part of English writers to trace the historical development of the different phases of intellectual progress. Before his death Sir Leslie Stephen had added his *English Utilitarians* to his earlier treatise on *English Thought in the Eighteenth Century*. Mr. Merz has recently completed the first part of his great undertaking in description of *European Thought in the Nineteenth Century*. Now from Mr. Benn we have an account of English rationalism in the century which has just ended. Like the other writers mentioned, Mr. Benn has understood his task seriously. It is almost superfluous to remark that the work before us is characterized by a broad outlook, extensive information, and insight into the phenomena with which it deals. Indeed, at times the reader questions whether the scope of the discussion is not too extended. Civil history, party politics, electoral manoeuvres, the relations of England to foreign nations, are all cited in explanation of the ebb and flow of unbelief, as well as science and philosophy, literature and criticism, and the religious motives proper. Rationalism in the eighteenth century is elaborately discussed as a prelude to its nineteenth century developments. Attention is directed not only to thought in Britain, but to the changes of opinion throughout the European world. And the details of religious evolution are considered so fully that at times there is danger of their obscuring the account of thought at large.

Nevertheless, the intension of the subject is sharply limited. Rationalism is formally defined as the use of reason for the (partial or total) destruction of religious belief (Preface, and Chap. I, *passim*). By way of content it commits its adherents to a certain doctrine, but to this alone, namely, "to the belief that there is an absolute all-embracing reality existing independently of our individual consciousness, the events of which occur according to a fixed order entirely consistent with itself, and quite unaffected by our thoughts and wishes, except in so far as they enter into it as determining antecedents" (Vol. I, p. 12). And candidly professing his adherence to this form of opinion, the author takes evident satisfaction in recording the advances of rationalistic principles in the period which he has selected for study. More particularly, he interprets and favors rationalism in the earlier, rather than in the more recent applications of the term. Mr. Benn's positions often remind one of the eighteenth century rationalists; rarely do they fail to show the influence of the 'climate' amid which the discussion, both by way of attack and of defence, was car-

ried on in Britain in the decades immediately succeeding the middle of the nineteenth century. 'Reason' is held to be the supreme motive force in the disintegration of religion and dogma. In comparison with it, the importance both of the historical method (Vol. I, pp. 8, 394-5; Vol. II, pp. 397, 469, 473-4) and of natural science (Vol. I, pp. 173, 197-201; Vol. II, pp. 159, 390) has been exaggerated. The view of the world adopted is a naturalism, in which an empirical analysis of knowledge is combined with a dogmatic affirmation of the universal supremacy of mechanical causation, theism and freedom being denied in consistent development of these central doctrines. Once more, the grounds and motives for belief are considered from a point of view which had been thought obsolete, at least among men of English speech; the methods and the moral earnestness of the theologians are impugned as a matter of course; mediating philosophers are often, though not always, accused of cowardice or the metaphysician's passion for endeavoring to synthesize irreconcilable opposites (Preface, ix-x; among recent writers, for example, the neo-Idealists are severely criticised, Stirling, Wallace, Green, J. Caird, and Ritchie being in turn charged with graver or lesser faults in the misinterpretation or concealment of truth, Vol. II, pp. 398-420); scientific thinkers with religious leanings are suspected of insincerity or hypocrisy (Vol. II, pp. 156-159, 390, *et passim*: so Faraday, Richard Owen, Lyell, W. B. Carpenter, Balfour Stewart, Tait, Kelvin, and others). Alike therefore by its interpretation of rationalism and by the spirit ascribed to its opponents, the discussion carries thought back to the conflicts of times earlier than our own.

Among topics specially interesting to philosophical students, Mr. Benn's views of questions connected with the philosophy of religion are most systematically given in his opening chapter, "Rationalism and the Methods of Faith." Apart from reasoned proof and in distinction from it, he enumerates the methods peculiar to faith as four: authority, to which the argument constantly returns as the mainspring of religious conviction; mysticism; scepticism, as exemplified by Butler, Mansel, and more recently, by Balfour, and which is heartily condemned; finally, 'ophelism,' from *ὀφελος*, 'use,' which signifies the attempt to bulwark religion by an appeal to the usefulness of its results. This last method, for which a new name is coined because 'utilitarianism' already possesses a more special connotation, is further analyzed into several subordinate varieties, intellectual, practical, emotional, and æsthetic ophelism, and in each case criticised severely (Vol. I, pp. 38 ff.). Mr. Benn holds the principle not merely irrational, but unworthy, for he recognizes in it nothing of the nobler appeal to value-judgments which from Rousseau and Kant to Lotze and Ritschl and James has so much contributed to the religious development of the later modern age. Or rather, he is minded to reduce the argument from practical reason or from value-judgments to mere affective concern for consequences. So Kant himself does not escape censure for lapses discovered in the practical part of his system (Vol. I, pp. 188-193).

In considering the author's treatment of other philosophical matters, the limitations of his inquiry must be kept in mind. Often the discussion is of necessity brief, while the principal aim is always to discover the religious, more specifically, the rationalistic bearings of a doctrine or system. Finally, the subject is English thinking, not the general progress of thought, so that it is not in every case easy to determine the precise scope of an explanation or a criticism. But after all allowances have been made, it remains impossible to term the result entirely satisfactory, either with regard to the exposition of principles or to the description of their influence on the wider developments of opinion. The account of Kant's theoretical philosophy is good, though not the best (Vol. I, pp. 181-188), the summary of Hegelianism presents the salient points of the system to the popular mind as well, perhaps, as could be done in so brief a compass (Vol. I, pp. 378 ff.). Descartes, on the other hand, fares badly in the statement of his positions, and his real influence is declared to have consisted in stimulating the theological reaction in France (Vol. I, p. 94). The central doctrine of Spinoza is repeatedly formulated as the belief in an "infinite Power" (Vol. I, pp. 94-97; cf. also Vol. II, pp. 232-3, where the interpretation is used, with other data, to show a relationship between Spencer and Spinoza). The exposition of positivism would benefit by more systematic development and by a comparative discussion of the earlier and the later phases of Comte's thinking (Vol. I, pp. 408 ff.); the account of J. S. Mill, whom with Comte Mr. Benn greatly admires, is stronger, although it may be doubted whether the estimate of the influence of these two writers on the thought of the century is not considerably exaggerated (Vol. I, pp. 449-450). Mr. Benn's treatment of Spencer (Vol. II, pp. 204-235) is marked at once by trenchant criticism, keen insight (*e. g.*, his ascription of pantheistic tendencies to Spencer), and over-insistence on individual interpretations (*e. g.*, the importance of Spencer's ethical interests in the organization of the Synthetic Philosophy is now justly emphasized, now overestimated). The discussion of the system of T. H. Green dwells on the analogies between Green and Berkeley, in spite of admitted differences, (Green's study of Lotze is not mentioned), and denies categorically the commonly believed dependence of Green on Hegel (Vol. II, pp. 401-409).

In fine, *The History of English Rationalism* is an important work, broadly planned and elaborately executed; but it is marred by faults both of method and result, and these prevent it from reaching the highest level of modern historical research.

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La raison pure et les antinomies: Essai critique sur la philosophie kantienne. Par F. EVELLIN. Paris, F. Alcan, 1907. — pp. iv, 316.

Most that is contained in the first three of the four parts of this book has appeared before: the first part in the *Bibliothèque du Congrès interna-*

tional de Philosophie (Philosophie générale et Métaphysique), 1900 ; the remainder in the *Revue de Métaphysique et de Morale* (since 1902). (Summaries of parts have been published in this REVIEW, Vols. XI, p. 426 ; XIII, p. 82 and p. 472 ; XIV, p. 630.)

The chief problem that the author sets before himself is, whether or not pure reason is a process divided against itself, and thus one hopelessly condemned to contradiction and to error. The belief that it is such, certainly has some excuse ; for philosophical speculation is still a battle-field of contending systems, and, moreover, a battle-field where even victory for some one system is but short-lived and indecisive. Then, too, there are the antinomies. Without sense experience thought is impotent ; and yet, if made quite dependent upon this experience, it can only oscillate back and forth between *pro* and *con*, between yes and no. The author was thus led to attempt a new examination of the Kantian antinomies, the results of which he gives us in his book. The main result is briefly as follows.

M. Evellin cannot believe, as did Kant, that there exists a determined number of antinomies. The historic four are but particular cases of one fundamental antinomy which enters into and explains all the others. "Il n'y a, et il n'y aura jamais qu'une antinomie, celle qui, dans la nature comme dans la pensée, au dehors comme au dedans, met le réel et le sensible en perpétuelle concomitance et aussi en perpétuelle opposition" (p. 308). This antinomy is fundamental, because it has its ground in the very mechanism of knowledge. Yet if this antinomy can be the means of resolving the others, can it itself be resolved? Yes. What in effect are the two terms we meet in it? On the one hand, *the sensible*, and on the other, *the real*. Neither can be suppressed, rather one must be made subordinate to the other. Which then is prior? Doubtless the real, for it explains the sensible but itself cannot be explained by the sensible. Now by what means are we brought into relation with the real? By pure reason. In short, it is pure reason that will remove the contradiction in the antinomy. A plurality of metaphysical systems seemed possible, but only one defies the antinomy and resolves its contradiction and thus has the support of reason. This is "le dualisme du noumène et du phénomène sous une unité qui domine leurs séries parallèles et les explique." Only thus can the two contradictory points of view justify their existence, the points of view "du dedans et du dehors, de l'action et de l'état, du noumène et du phénomène." A rival theory, idealism, can give an account of one of these terms thus coupled, but it cannot explain the other.

This point of departure for attacking the problem of the antinomies seems to the reviewer quite the wrong one. It is not by finding two fundamental cognitive processes, nor by finding two sides of the universe, that the antinomies will be resolved. Rather their resolution depends upon our showing, either that one side is fallacious, or that both sides are proving quite different propositions. In fact, whatever M. Evellin's book may add to our knowledge regarding the antinomies, seems to come from precisely such a mode of

investigation. The main thing is to get the terms properly defined, and this is what we have so much reason to hope for, in regard to the first two antinomies, from recent mathematical investigations. Then, too, the whole question of the relation between mathematical truth, on the one hand, and the existent spatial and temporal world, on the other, may, when finally answered, show that the two sides of these antinomies prove correctly two quite distinct propositions, and this without in any way implying a fundamental difference between cognitive processes. At least, we need here, as in so many other philosophical problems, to begin with the special, or logically posterior problem, and work from it toward the more general, or logically prior, and not the other way around.

The four antinomies, M. Evellin tells us, divide into two groups, the former treating mathematical and physical magnitude, the latter dealing with being, or the existent. In the latter group, the object of the third antinomy is *relative* existence ; of the fourth antinomy, *absolute* existence.

All the theses have a common object, the real ; the antitheses, the sensible. Thus the first thesis maintains the necessity of a finite world. To hold otherwise would be to say that we can regard a world dependent upon our imagination and its caprices as a world self-dependent and living its own life. That is, the infinite is never complete, is never given, and therefore cannot be real. It is only the product of that indefinite power our minds have of imagining the possible.

Similarly, the simple or indivisible is another essential form of the real (the second thesis). The complex is given, is therefore real ; and if it is real, its parts cannot keep receding *ad infinitum*. They in their turn are real. The element exists ; that is, the real cannot be a continuum, for we cannot decompose a continuum into final elements. It is a collection always incomplete, and therefore never given. The only way in which the continuum can be distinguished from the purely indeterminate, is by regarding it as discontinuous, that is, by thinking into it the line and the point, and thus limiting it.

Again (third thesis) autonomous action is the real itself. Indeed, the name 'real' belongs only to that which can act or react. Necessity tells us that the laws are external to the events themselves and thus compel them from without. If, however, we regard the law as internal, as inherent in the object, then it becomes merely its constant manner of behaving. It denotes spontaneity. To the onlooker, an object endowed with spontaneity and set in relation to other objects similarly endowed, does, of course, appear determined from without.

Finally, the fourth thesis tells us that the Absolute is the supreme reality ; because, independent and autonomous, it carries in itself the ground of its existence. Thus our reason demands the unconditioned as it does the simple ; whereas our imagination repels it, because we can picture it only as a first phenomenon in relation to all the other phenomena, and thus as itself conditioned.

In short, science cannot explain metaphysics : for this would imply that the infinite can explain the finite ; the complex, the simple ; the condition, the action ; and, finally, the relative, the absolute. On the contrary, each thesis takes precedence over the corresponding antithesis, because it alone can justify the other. The notion of the finite, of the simple, of spontaneity, is positive, that of their opposite is negative ; and "l' idée positive explique l' idée négative."

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La psychologie des individus et des sociétés chez Taine, historien des littératures : Étude critique. Par PAUL LACOMBE. Paris, Félix Alcan, 1906. — pp. ii, 375.

Here is "a critical, nay a very critical, examination of the theories of Taine" (p. i), having especial reference to the principles in his *Histoire de la littérature anglaise*, and based mainly on "a repeated perusal of Taine's works," together with the results of M. Lacombe's own "personal reflection" (p. 373). Throughout his first eight chapters, this stern inquisitor confronts Taine's generalizations, his notions of the "race," the "environment," and the "acquired momentum," as exemplified in English literature, "with the facts," and steadily finds the requisite correspondence between generals and particulars wanting. It is true, M. Lacombe's "facts" are derived, not from his own preliminary researches in English literature,—not from his own use of that patient method of detailed investigation which he prefers in the literary as in the political historian, and which he misses in Taine (p. 194),—so much as from the scholarly works of M. Jusserand and others ; still, however derived, they suffice for his end.

With clearness and point, though often with teasing iteration, he takes up a supposedly fundamental conception in the *Histoire de la littérature anglaise*, a large conception, let us say, such as that of the Anglo-Saxon race, and, having analyzed this idea, he easily shows how Taine's "dreadfully simplified" psychology, his belief in a few persistent racial traits, fixed from the very dawn of Germanic legend, fails to account for a complex personality like Shakespeare or Pope.

Taine's salient defect as a thinker on literature was doubtless his inability to realize what education means both to nations and to individuals. His caricature of early English civilization was due primarily, of course, to his imperfect acquaintance with "Anglo-Saxon" masterpieces ; for he was at no pains to familiarize himself with the scholarship they had attracted before 1863, the year in which the *Histoire* was published. Yet had he paused to consider, even roughly, the influence of Roman Christianity on all the Teutonic peoples, he could not have travestied as he did the culture that nourished Cynewulf and Alfred. Similarly with individuals : Taine's estimate of Shakespeare, so alluring to the unsuspecting, is rendered almost

worthless, sometimes even pernicious, by his continual neglect of Shakespeare's evolution as an artist. To everyone who accepts this estimate, the "genius" that sought expression in the youthful *Venus and Adonis* must have been precisely the same as the mature genius that breathes in the *Tempest*. Very few appreciate the force of Kipling's dictum: "If a poet is born right, he may be made"; he may be given the right models for emulation. Imitation, which is the chief agency in the development of a literary artist, as well as in the growth of a national literature, is emphatically one of the "causes ill apprehended by Taine" (Chap. viii).

In his ninth chapter, M. Lacombe offers certain prolegomena to an historical procedure different from the one he has demolished. Based upon a modern, but not an experimental, psychology, this suggested procedure, even though superior to that of Taine, would hardly be an improvement upon the theory and practice of literary research which the last century saw developed by German scholars, acting under the influence of Goethe, and led, we may say, by August Boeckh. Applied to the study of English, this method of Boeckh has produced the one general history of our literature that as yet deserves the name, Ten Brink's. Though an admirable source for facts that are both exact and alive, and also for ideas that are both large and precise, Ten Brink's work is for some reason not mentioned by M. Lacombe.

Is such an arraignment of Taine greatly needed in France? Of late this intrepid and fascinating spirit, this master of philosophical eloquence, has been faring ill at the hands of his countrymen. In this country, without question, and very likely in England, there are not a few *literati* who should still be given an antidote for the shallow determinism of his best-known book, and who might profit by the analysis of his character and education in M. Lacombe's tenth chapter. In the philosophy of history or literature, "it is a terrible thing to have a system at the age of twenty."

LANE COOPER.

CORNELL UNIVERSITY.

Sex and Society. By WILLIAM I. THOMAS. Chicago, The University of Chicago Press, 1907.— pp. 325.

In collecting a number of scattered essays into a single volume under the title *Sex and Society*, Professor Thomas has performed a distinct service both to sociology and to psychology. The fundamental thesis running through the book is, "that the differences in bodily habit between men and women, particularly the greater strength, restlessness, and motor aptitude of man, and the more stationary condition of woman, have had an important influence on social forms and activities, and on the character and mind of the two sexes" (p. v). This is worked out in considerable detail with reference to primitive social control, social feeling, primitive industry, and primitive morality. Four interesting chapters on the psychology

of exogamy, the psychology of modesty and clothing, the adventitious character of woman, and the mind of woman and the lower races conclude the volume.

With regard to the fundamental organic differences in the sexes, there would seem to be little opportunity to take issue with the conclusions reached by Professor Thomas and supported by an imposing array of materials in his first paper. Since many of the topics discussed in the succeeding essays, however, deal with the social effects of sex under primitive conditions, it is to be regretted that so little is said regarding the organic differences between the males and females of primitive races. Measurements of Yale men and Vassar women throw little light upon conditions in African jungles and Australian deserts. In general, however, there would seem to be little doubt regarding the fundamental accuracy of the physical postulates from which the author sets out. The chapter on primitive social control furnishes many evidences of the importance of sex in early social conditions, its conclusion being that "the earliest groupings of population were about the females rather than the males" (p. 55). This is attributed not to motherhood alone, but rather to the more stationary character of woman. Incidentally Professor Thomas points out the curious tendency of many sociological writers to minimize everything held to indicate an early state of promiscuity. In thus "defending the honor of the race," even the importance of maternal descent has been attacked, although there is no necessary connection between the latter and promiscuity.

In sharp contrast with Ward, Professor Thomas refuses to be drawn into any maudlin expression of sympathy for the supposed terrible oppression practiced upon primitive woman. Many other conclusions reached in the chapter on primitive industry are novel and important. The author's coolness of judgment is also much in evidence in the discussion of sex and primitive morality. Writers on this theme seem prone to let their subject run away with them and to find in the sexual principle an explanation for everything. Professor Thomas, on the other hand, places himself at once on firm ground by the frank acceptance of the position that, "in a moral code, . . . whether in an animal or human society, the bulk of morality turns upon food rather than sex relations" (p. 150). Limitations of space preclude the citation of any of the numerous evidences of fine psychological insight shown in the four concluding essays of the present volume. A careful reading of them fails absolutely to develop any basis for the inferences drawn by certain 'newspaper scientists' with regard to Professor Thomas's alleged opinion that "the mind of woman is of low grade and essentially unimprovable." Directly the contrary conviction is apparent in the essays particularly complained of, viz., "The Mind of Woman and the Lower Races," and "The Adventitious Character of Woman." Nevertheless the misinterpretation was so widespread and so persistent as to draw from the publishers a brief but explicit disclaimer, which is now being sent out with the book. In scientific circles the essays will be accepted as presenting

many novel and weighty conclusions on society as seen from a single, but extremely important, view point.

ROBERT C. BROOKS.

SWARTHMORE COLLEGE.

Einführung in die Erkenntnistheorie: Darstellung und Kritik der erkenntnistheoretischen Richtungen. Von RUDOLF EISLER. Leipzig, Verlag von Johann Ambrosius Barth, 1907.—pp. xii, 292.

This recent book from the productive pen of Dr. Eisler fully sustains the author's reputation for scholarship, impartiality, and pedagogical skill earned for him by his earlier writings. The book is simply and effectively planned and clearly written, highly commendable qualities at a time when the pedagogical purpose of scientific books is too largely lost sight of, and an increasing number of otherwise valuable writings are marred by structural crudeness and obscurity of style. After an introduction on the problem and methods of epistemology, the author treats the problem of knowledge under three main heads, as follows: (I) The Possibility of Knowledge: The Problem of Truth; (II) The Problem of the Origin of Knowledge; (III) The Problem of Reality. The sections are similar in structure, each one embracing in its plan exposition of the various theories, historical orientation, and critical appreciation. As might have been expected in a book by the author of the *Wörterbuch der philosophischen Begriffe*, the portions on definition and classification of epistemological theories are executed with particular skill, and will perhaps be found the most valuable parts of the book, though the lavish bibliographical citations and references to writers testify to an admirable breadth of historical information, and will be found useful for the classification of philosophical thinkers. The critical and constructive portions, also, are in the main interesting and suggestive. The writer's acquaintance with recent American literature appears to be more defective, and the scant recognition accorded to recent American contributions to the theories of realism and pragmatism, particularly, will perhaps impress the English reader as one of the minor limitations of the book. Pragmatism he seems to regard as the private and particular contribution of certain English writers, and the Sturt *Essays* as its representative literature! It seems odd, too, that, where literary citation is so uncompromisingly complete, a work like *The World and the Individual* (to take only a single example) should be all but neglected in any discussion of recent idealism.

It will be impossible in a brief sketch to do more than indicate the salient features of the author's own epistemological doctrine. The peculiar subject-matter of the theory of knowledge is the process of knowledge itself. This it investigates for its instrumental value,—for its extra-mental or logical significance. As regards its method, epistemology must, as a science of value, be sharply distinguished from psychology. Psychology examines

thought for what it is, epistemology examines thought for what it does. The method of the former is descriptive, the method of the latter is teleological and critical. Nevertheless, epistemology cannot, without detriment to itself, isolate itself completely from descriptive and genetic psychology; the content of thought cannot, with Husserl, be regarded as independent of the act of thought. Mutual relations also obtain between epistemology and metaphysics, which the author does not identify. Every metaphysic must be critical, and it has little value unless it first investigates and estimates the instrument of knowledge of which it makes use. Nothing, on the other hand, can prevent metaphysics, when once established, from including the subject and its knowing function among the data of which it attempts to give an interpretation from its own special point of view.

I. Knowledge, in the logical sense, denotes a judgment which has the characteristic of truth, *i. e.*, which designates and represents the objective as it truly is. Truth, on the other hand, is always a quality of judgment (Aristotle), not of things or representations. Several kinds of true judgments are distinguished: (1) the logical and mathematical; (2) judgments which conform to the laws of thought, and which are logically derived from other judgments; and, finally, (3) materially true judgments, or those which have more than merely formal truth. It is only the latter species of judgments which have reference to an independent reality. On the vital question as to the criterion of truth, the author expresses himself with some hesitation. It appears to be internal consistency among private and social judgments, and corroboration in the development of experience as this is elaborated by thought. The criterion of subjective necessity is of little significance except in the case of the formal judgments mentioned above. Practical utility is often a criterion of truth, since, broadly speaking, the logically true judgment will coincide with the practically useful one; but the criterion of truth must not be identified with truth itself, as has erroneously been done.

II. The treatment of rationalism and empiricism in the second part of the book is along Kantian lines, and hardly requires extended notice. Criticism overcomes the onesidedness of both rationalism and empiricism, and it must be the constant care of neo-criticism to guard against the weaknesses of the onesided views which Kant himself did not entirely escape. The main deficiencies of Kant's doctrine are: (1) that he assumes dogmatically the apodictic character of the mathematico-physical axioms; (2) that he does not clearly distinguish the psychological from the logical significance of the *a priori*; (3) that he uncritically adopts the table of categories, which is both incomplete and redundant, and which needs re-interpretation and revision; (4) that the necessity of the forms of intuition and thought requires further explication. These forms have a teleological necessity, since they have their source in the rational impulse, the 'will-to-think.' The primacy of the will must be taken seriously, and, since it motivates thought as well as conduct, must be made an organic part of epistemological theory (voluntaristic criticism).

III. On the problem of reality, the author adopts the point of view of Ideal-Realism, which maintains the doctrine of the immanence of objects of experience, while at the same time postulating transcendent factors in which phenomenal reality, in both its qualitative and quantitative aspects; has its ground and partial condition. Of this transcendent reality our knowledge is only indirect and symbolic; it is perhaps interpretable in terms of our own active inner life.

The book fairly teems with mechanical defects of various sorts, typographical errors, inaccuracies of citation of text, titles, dates of publication, etc., a few of which I have noted: p. 74, l. 32; p. 93, l. 1; p. 94, l. 13; p. 91, l. 36; p. 111, l. 10; p. 113, l. 36; p. 181, l. 11; p. 265, ll. 1 and 16; p. 281, l. 31; p. 271, l. 22; p. 287, l. 8.

The book is provided with a rather miscellaneous bibliography and an index of names.

E. C. WILM.

WASHBURN COLLEGE.

Wissenschaftliche Beilage zum neunzehnten Jahresbericht (1906) der philosophischen Gesellschaft an der Universität zu Wien. Leipzig, Verlag von Johann Ambrosius Barth, 1906.—pp. 89.

This title comprises five papers by well known *savants* on mathematical and philosophical topics. J. Ofner, "Schiller als Vorgänger des wissenschaftlichen Socialismus," undertakes, by bringing into relief some now familiar motives of Schiller's reflective thought, to assign the poet's rightful place in the development of modern social theory, and to determine his relation, particularly, to Marx, whom Schiller resembles in designating certain natural and economic forces (need, industry, surplus, leisure) as important factors in the evolution of the rational and ideal phases of modern culture. The main value of this paper lies in exhibiting the historical sense which Schiller doubtless possessed, but the merits of Schiller's contribution to an evolutionary theory of society appear to the present writer to be somewhat exaggerated. The added interest of dramatic presentation hardly compensates for the false historical perspective which results. The interest of the latter would perhaps have been better served by tracing Schiller's social-evolutionary ideas to the essays of his school period (*Ü. d. Zusammenhang*, etc.), and from these to the youthful moral and historical *Lektüre* (Ferguson-Garve, Haller, *et. al.*) of the poet. "Philosophische Grundlegung der modernen Psychologie," by O. Ewald, is a spirited defense of an independent science of psychology as against metaphysical materialism, which denies the existence of the psychical, on the one hand, and psychophysical materialism, which transfers psychical law and efficiency to physiology, on the other; and of an activity psychology (psychology of apperception) as against a mechanical associationism, to which the writer appears to have a special antipathy. The function of apperception itself, or will, cannot be an object of empirical investigation (Wundt), but

must, as subject and synthetic principle in every act of introspection, fall behind the realm of the empirically given into the region of the Unconscious (Schelling, Schopenhauer, v. Hartmann). There are three further papers, "Grenzfragen der Mathematik und Philosophie," by F. Klein and A. Höfler, and "Versuch einer Theorie der scheinbaren Entfernungen," by R. v. Sterneck.

E. C. WILM.

WASHBURN COLLEGE.

The Aesthetic Experience: Its Meaning in a Functional Psychology. By ELIZABETH KEMPER ADAMS. Chicago, The University Press, 1907. — pp. 114.

From data furnished by analytic psychology and descriptive sociology, the author of this excellent monograph attempts a philosophical interpretation and estimate of the æsthetic experience from a single and definite point of view. Among the important topics treated with special suggestiveness are: The relation of the æsthetic to the intellectual; its relation to fundamental life interests, instincts, and activities; its social characteristics; and a reinterpretation of the æsthetic categories from the functional and social point of view.

Æsthetic experience is immediate *vs.* mediate, "a sign and function of full and successful mental operation" (p. 6), "the culminating stage of development in every reorganization" (p. 108); but it also serves as a basis for later reconstructions, that is, it has the utility of the concept or of "an ideal of organization." It is mainly of the "simultaneous type of organization" as contrasted with the serial, *i. e.*, the values are not successively lost to consciousness as in the attainment of mechanical skill. The "æsthetic moment," emotional and active, is not to be confused with the critical or reflective experience often succeeding it (the psychological fallacy); yet the mistake is frequent of treating it too much in isolation from other aspects of experience and from the situation in which it arises (the logical fallacy). There is "no one primordial æsthetic instinct" nor separate art impulse (p. 86). Though such complex structures as those of music and the tragical drama are regarded as most typical of æsthetic experience (pp. 31, 103), yet pure beauty, as the approximation to a simple fusion, is taken as the æsthetic standard or ideal limit. The æsthetic moment is not confined to the appreciation of nature and art, but is a stage in intellectual and moral activities and in all types of experiential developments. "The æsthetic finds its fullest meaning and explanation as a category of social psychology" (p. 6). "The æsthetic object . . . is the social object at its first moment of completed construction. . . . It is therefore reality in the fullest sense of the term" (p. 72). The fine arts, far from being the product of mere leisure, are in vital relation to life, whose deeper needs they express.

Such are some of the positions taken by the thesis. Among its commendable features are its arrangement, its connectedness, its grasp of essential problems in their bearings. The monograph should have considerable value for all who are interested in æsthetics or functional psychology. Frequent useful summaries are scattered through the text. There is a table of contents and a full index.

E. L. NORTON.

UNIVERSITY OF ILLINOIS.

The following books also have been received :

- Proceedings of the Aristotelian Society.* Vol. VII. London, Williams and Norgate, 1907. — pp. 244. 10s. 6d.
- Aristotle.* By FRITZ MAUTHNER. (Illustrated Cameos of Literature. Edited by George Brandes.) Translated by Charles D. Gordon. London, William Heinemann, 1907. — pp. 111. 1s. 6d.
- A Student's History of Philosophy.* By ARTHUR KENYON ROGERS. New edition, revised. New York, The Macmillan Company, 1907. — pp. xiii, 511. \$2.00.
- Lay Sermons and Addresses Delivered in the Hall of Balliol College, Oxford.* By EDWARD CAIRD. Glasgow, James Maclehose and Sons, 1907. — pp. 312. 6s.
- Israel's Golden Age: The Story of the United Kingdom.* By J. DICK FLEMING. Edinburgh, T. & T. Clark; imported by Charles Scribner's Sons, 1907. — pp. 160. 45 cts.
- Outlines of Psychology.* By WILHELM WUNDT. Translated, with the coöperation of the author, by CHARLES HUBBARD JUDD. Third revised English edition, from the seventh revised German edition. Leipzig, Wilhelm Engelmann; London, Williams and Norgate; New York, G. E. Stechert & Co., 1907. — pp. xxiv, 392.
- Woman and the Race.* By GORDON HART. Westwood, Mass., The Ariel Press, 1907. — pp. 265. \$1.00.
- Aspects of Child Life and Education.* By G. STANLEY HALL and Some of His Pupils. Edited by THEODATE L. SMITH. Boston, Ginn & Co., 1907. — pp. xi, 326. \$1.60.
- The Evolution of Consciousness.* By LEONARD HALL. London, Williams and Norgate, 1901. — pp. 152. 3s.
- Elements of Psychology.* By SYDNEY HERBERT MELLONE and MARGARET DRUMMOND. Edinburgh and London, William Blackwood and Sons, 1907. — pp. xvi, 483. 5s.
- Beyond Good and Evil: Prelude to a Philosophy of the Future.* By FRIEDRICH NIETZSCHE. Authorized translation by HELEN ZIMMERN. Edinburgh and London, T. N. Foulis, 1907. — pp. xv, 268. 5s.
- The Later Nineteenth Century.* (Periods of European Literature, Vol. XII.) By GEORGE SAINTSBURY. Edinburgh and London, William Blackwood and Sons, 1907. — pp. xviii, 471. 5s.

- System der Philosophie.* Von WILHELM WUNDT. Dritte, umgearbeitete Auflage. 2 Vols. Leipzig, Verlag von Wilhelm Engelmann, 1907. — pp. xviii, 436; vi, 302. 14 M.
- Logik: Eine Untersuchung der Prinzipien der Erkenntnis und der Methoden wissenschaftlicher Forschung.* Von WILHELM WUNDT. II. Band: Logik der exakten Wissenschaften. Dritte umgearbeitete Auflage. Stuttgart, Verlag von Ferdinand Enke, 1907. — pp. xv, 653. 15 M.
- Moderne Philosophie: Ein Lesebuch zur Einführung in ihre Standpunkte und Probleme.* Herausgegeben von MAX FRISCHEISEN-KÖHLER. Stuttgart, Verlag von Ferdinand Enke, 1907. — pp. xii, 412. 9.60 M.
- B. de Spinozas kurzgefasste Abhandlung von Gott, dem Mensch und dessen Glück.* Ins Deutsche übersetzt von C. SCHAARSCHMIDT. Dritte verbesserte Auflage. Leipzig, Verlag der Dürr'schen Buchhandlung, 1907. — pp. xii, 128. M. 1.80.
- Das Gesetz der Vernunft und die ethischen Strömungen der Gegenwart.* Von ERNST MARCUS. Herford, Verlag von W. Menckhoff, 1907. — pp. ix, 284.
- Der Intellektualismus in der griechischen Ethik.* Von MAX WUNDT. Leipzig, Verlag von Wilhelm Engelmann, 1907. — pp. 104. M. 2.80.
- Mensch und Wirklichkeit.* Von OSWALD WEIDENBACH. Giessen, Verlag von Alfred Töppelmann, 1907. — Erster Teil, pp. 56; Zweiter teil, pp. vi, 80. M. 4.
- Die typischen Geometrien und das Unendliche.* Von BRANISLAV PETRO-
NIEVICS. Heidelberg, Carl Winter's Universitätsbuchhandlung, 1907. — pp. viii, 87. 3 M.
- Der Utilitarismus bei Sidgwick und Spencer.* Von A. G. SINCLAIR. Heidelberg, Carl Winter's Universitätsbuchhandlung, 1907. — pp. iv, 107. M. 2.80.
- Kuno Fischer: Gedächtnisrede bei der Trauerfeier der Universität zu Heidelberg.* Gehalten von WILHELM WINDELBAND. Heidelberg, Carl Winter's Universitätsbuchhandlung, 1907. — pp. 41. 80 Pf.
- Psychologie als Grundwissenschaft der Pädagogik.* Herausgegeben von M. JAHN. Fünfte verbesserte und vermehrte Auflage. Leipzig, Verlag der Dürr'schen Buchhandlung, 1907. — pp. xii, 527. M. 7.50.
- Philosophie et philosophes.* Par ARTHUR SCHOPENHAUER. Première traduction française par AUGUSTE DIETRICH. Paris, Félix Alcan, 1907. — pp. 208. 2 fr. 50.
- Il pensiero filosofico di Luigi Blanch.* Esposizione ed osservazioni del Dott. PAOLINO BARBATI. Napoli, F. Sangiovanni & Figlio, 1907. — pp. 103. L. 1.50.

SUMMARIES OF ARTICLES.

[ABBREVIATIONS.—*Am. J. Ps.* = *The American Journal of Psychology*; *Ar. de Ps.* = *Archives de Psychologie*; *Ar. f. G. Ph.* = *Archiv für Geschichte der Philosophie*; *Ar. f. sys. Ph.* = *Archiv für systematische Philosophie*; *Br. J. Ps.* = *The British Journal of Psychology*; *Int. J. E.* = *International Journal of Ethics*; *J. of Ph., Psy., and Sci. Meth.* = *The Journal of Philosophy, Psychology, and Scientific Methods*; *J. de Psych.* = *Journal de Psychologie*; *Psych. Bul.* = *Psychological Bulletin*; *Psych. Rev.* = *Psychological Review*; *Rev. de Mèt.* = *Revue de Métaphysique*; *Rev. Néo-Sc.* = *Revue Néo-Scolastique*; *Rev. Ph.* = *Revue Philosophique*; *Rev. de Ph.* = *Revue de Philosophie*; *R. d. Fil.* = *Rivista di Filosofia e Scienze Affini*; *V. f. w. Ph.* = *Vierteljahrsschrift für wissenschaftliche Philosophie*; *Z. f. Ph. u. ph. Kr.* = *Zeitschrift für Philosophie und philosophische Kritik*; *Z. f. Psych.* = *Zeitschrift für Psychologie und Physiologie der Sinnesorgane, I. Abtl.: Zeitschrift für Psychologie.* — Other titles are self-explanatory.]

LOGIC AND METAPHYSICS.

L'empirio-criticisme de Richard Avenarius. F. VAN CAUWELAERT. *Rev. Néo-Sc.*, XIV, 1, pp. 50-64; 2, 166-182.

According to Avenarius, the fundamental cause of the barrenness of idealism lies in 'introjection.' The ordinary man (M) attributes to beings like himself (T) sensations and feelings like his own, thus creating a double world, his own (external) and that of T (internal). Later, by assuming causal relations between T's sense experience and the objects which he himself sees, and by confusing his own perceptions with T's, M erects an absolute dualism between spirit and matter, and ends by reducing the objects whose perception he set out to explain, to mere representations, entirely separated from an unknowable real world. In the natural conception of the world, as opposed to this introjectionistic view, we find the ego and the non-ego given in inseparable relation; and, in addition, the hypothesis that the other men whose bodies we perceive are capable of 'amechanical' ideas, feelings, and movements like ourselves. Such is experience from the absolute point of view. Observation shows, however, that the internal modifications (E) of the subject (M) by objects (R) are conditioned by M's central nervous system (C_m); if, then, instead of the relation between E and R, we consider the relation between R and C_m , we have the relative point of view. This relation is mechanical; but the relations between R and E, and between C_m and E, are logical functional relations, and in no scientific sense causal. From the principle of least energy Avenarius deduces the principles of unity (ego and non-ego are inseparable), of continuity (scientific knowledge develops out of pre-scientific knowledge), and of advance by progressive elimination of useless elements. We start with 'synthetic' pure experience, — the naïve, fragmentary, 'common-

sense' view of the world. This later develops into a more stable 'analytic' pure experience, which, though still free from non-empirical elements, is enlarged, explicated, conceptually completed. The basis of consciousness, the central nervous system (C), is subject to nervous modifications (stimuli) and nutritive modifications. In virtue of its power of vital conservation, it tends to maintain its energy at a maximum, nutrition balancing work. A complete oscillation between these two constitutes an 'independent vital series,' as opposed to the 'dependent vital series' which accompanies it in consciousness. The social systems (C) likewise strive to maintain a maximum of energy; those in which the interests of one individual conflict with the interests of another must correct themselves or perish. The group thus tends to a condition of stability and constancy, through the progressive elimination of everything unessential. Conscious states (E) are concomitants of nervous oscillations; perception accompanies a peripheral, and ideation a purely central, excitation. The generality of logical, ethical, and æsthetic 'epicharacters,' such as laws of nature and the like, rests on the generality of their conditions, purely individual differences tending to disappear to the advantage of the social whole. On our anticipation based upon constant sequence the notions of causality, necessity, fatality, liberty, etc., depend. A disturbance of an established habit of the nervous system may lead, on the cognitive side, to a 'problemization'; the restoration of nervous equilibrium leads to a 'deproblemization,' a resolution of doubt, a new truth. Despite individual predispositions, thought is constantly perfecting itself; ultimately man will possess a knowledge acquired by methods common to all, universally valid and certain,—an organized scientific system which will be purely descriptive and quantitative, substituting equations for causal relations, and so connected that from any one part all the rest can be deduced.

F. D. MITCHELL.

The Structure of Reality. GERALD CATOR. *Mind*, No. 61, pp. 54-69.

This article starts out with two postulates: (1) that Reality is intelligible, *i. e.*, is the content of the thought of a self-conscious absolute mind containing within itself the whole ground of its own being and of all possible predicates,—for detailed proof of which postulate the reader is referred to Bradley's *Appearance and Reality* and to Bosanquet's *Logic*; (2) that whatever appears to be, is, *i. e.*, in its integral and proper nature a function of the absolute system. All is real which is involved in the satisfaction of logical implication, and the ultimate real is that system which is logically complete and free from further implication or relativity to anything outside itself. Reality being primarily a logical system, the content of an absolute consciousness, the individual's progress in knowledge is characterized by growing independence of sense data. The article then goes on to prove a series of propositions concerning the Absolute, *viz.*, that the Absolute exists, *i. e.*, that this logical construction is true to the world of

perceptive experience, and is ultimate and all-inclusive ; that the Absolute knows, since an intelligible implies an intelligence ; that the Non-Absolute is real, being a logical function of the absolute system, and is not merely 'harmonized' by the 'suppression' of its differences ; that the Absolute exists necessarily, and that the Non-Absolute does not exist necessarily ; that the Non-Absolute is caused to exist by the will of God, the Absolute Being ; and that the act of the Divine Will realizing the Divine Ideas is an act of Creation.

F. D. MITCHELL.

On Truth and Copying. F. H. BRADLEY. *Mind*, No. 62, pp. 165-180.

The idea that truth consists in mere copying is natural. The fatal objection to the theory is that, if truth is to copy facts, truth is essentially unattainable, since the facts to be copied show already in their nature the work of truth-making. Nor does reflective, as distinguished from perceptual, thinking consist in mirroring reality. Both truth and reality go beyond the given. Truth, knowledge, and reality must not be separated, otherwise they cannot consistently be brought together. The theory that truth is that which 'works' falls into this error and ends in self-contradiction, since truth about that which really works seems to go beyond truth. Accepting, then, the identification of truth and reality, we must conclude that the end of truth is to contain reality in its entirety. That is to say, truth must include everything which is in any sense given, and must include it intelligibly. Thus truth, according to its own standard, seems to fail ; (1) because complete intelligibility of its contents is impossible, and (2) because, as a result of this fact, truth fails to include all the given facts. This, however, is simply a deficiency of truth, not impotency. In its deficiency, truth differentiates itself from reality, and its difference from reality constitutes its nature as truth. So the copy theory of truth disappears as irrelevant ; ultimately truth and reality are one. In a sense, indeed, truth may be said to correspond to facts, since knowledge always has its categorical reference ; but in the end this assumption of correspondence is not permissible. A one-sided practical, or a one-sided intellectual view of truth leads to difficulties which are solved by the more concrete view advanced above. In a note of four pages appended to this article, the author tries to make clear or remove the points apparently at issue between himself and James.

G. W. CUNNINGHAM.

On Truth. J. MARK BALDWIN. *Psych. Rev.*, XIV, 4, pp. 264-287.

This article is part of Chapter XIII of the second volume (still unpublished) of the author's *Thought and Things*. It has, however, been somewhat modified in order to reply to certain criticisms of Volume I, by Professors Dewey and Moore ; and as it stands it serves sharply to differentiate the

author's position from the pragmatism advocated by these writers. Baldwin's general contention is that "the determination of the true is not entirely through the postulates of conduct." As against the pragmatic view of 'control through knowledge,' he sets up his theory of 'knowledge through control.' This means that from the logical point of view there is always a dualism between thoughts and facts, between purpose and end, implying on the part of knowledge an objective reference to a domain of hard facts. This dualism is not overcome by taking the social point of view and speaking of social purposes; for "truth has an existential reference that is not removed by the statement of social desiderata." It is, however, in the give and take of the social process that truth, as a system of objective meanings, is derived, though it must be noted that the transforming constructive acts are always those of individual attention and judgment. In a footnote at the end of the article, Baldwin gives the following statement of his fundamental positions: (1) "That truth is a system of objective contents set up and acknowledged as under a variety of coefficients of control; (2) that this system is socially derived and socially valid, though rendered by acts of individual judgment; (3) that the whole movement issues in a dualism of self-acknowledging and objects-acknowledged, a dualism from which thought as such cannot free itself."

J. E. C.

Note sur la valeur pragmatique du pragmatisme. F. MENTRÉ. Rev. de Ph., VII, 7, pp. 5-22.

Historically pragmatism is the natural off-shoot of English philosophy; but it has also unsuspected affiliations with scepticism and mysticism, as shown, on the one hand, by its contempt for 'useless' speculation and its narrowly empirical and practical attitude toward science, and, on the other hand, by its agnosticism and its emphasis on feeling in religion. Its rapid and astonishing success is due, first, to its simplicity, its appeal to the 'plain man,' by erecting into an absolute philosophical method the appeal to 'cash values'; and, secondly, to its revolt against the extreme intellectualism of the preceding generation. It is an autochthonous fruit of American civilization, well satisfying the deeper instincts of the Anglo-Saxon race; but it has also, strange to say, gained a considerable foothold in Italy among the younger men. In France, however, it is more complex, more modified by other currents of thought. Ignoring now the suspicious origin and bold assurance of pragmatism, let us examine its intrinsic, 'pragmatic' value, first of all in the field of science. In applied science its claims may pass; but pure science, the basis of all applications, requires disinterested effort, without thought of utility, as the declarations of great scientists and numberless concrete instances abundantly show. If the devotees of pure science ceased to exist, our civilization would disappear in a very short time; without disinterested knowledge back of them, our libraries and machines would be useless or worse than useless. As for philos-

ophy, in epochs of scientific stagnation it has always been the refuge of the spirit of disinterestedness ; and, in epochs of progress, the philosophers have been the soul of the progress made. Every eminent philosopher has been at the same time a great scientist, and every scientist in some degree a philosopher. Science and philosophy are separable only with great loss to both. Whatever its practical value, the vague concept of utility is useless as a rational, philosophical criterion. To adopt pragmatism is to abandon clearness, rigor, and method. Stripped of the graces of style, pragmatism, with its contempt for all philosophy outside England and America, soon becomes tiresome. Such, at any rate, is the protest of a French thinker against a philosophy of engineers, merchants, and financiers. Judged by its fruits, by its own favorite criterion, it is found wanting.

F. D. MITCHELL.

Sur une fausse exigence de la raison dans la méthode des sciences morales.

A. LALANDE. Rev. de Mét., XV, 1, pp. 18-33.

In the existential sciences the necessity of certain presuppositions is clearly recognized. A criterion of truth and falsity and certain indemonstrable first principles are among such presuppositions. It is only by this means that minds, despite their peculiarities, can communicate and agree with each other and thus build up the sciences. These facts, however, are commonly lost sight of in the so-called 'normative' sciences. Especially is this true in ethics. Demand for proof of maxims in ethics is by no means unjustifiable. But ethics, like the other sciences, has its necessary assumptions. Human nature has to be taken as it is, and the moral laws have to be determined according to its peculiar constitution. It is useless to enquire what morality would be were human nature different. As well wonder what epistemology would be were all men fools, as to wonder what ethics would be were all men bad. To demand that a science be rational is not to demand that it make its appeal to a pure intellect stripped of its humanity. Reason is known to us only as it manifests itself to us ; and it manifests itself only in its results. It escapes us when we attempt to isolate it from its results and to observe it in this isolation.

G. W. CUNNINGHAM.

PSYCHOLOGY.

Le concept de la volonté. HARALD HÖFFDING. Rev. de Mét., XV, 1, pp. 1-17.

There are two standpoints in current psychological controversy on the problem of the will. On the one hand, it is maintained that the will cannot be considered as a separate factor in the conscious life. On the other hand, it is argued that the investigation of the will is the most fundamental point of departure in the consideration of the conscious life. The present article asserts that, though will cannot be the object of a simple and direct obser-

vation, yet it is an independent manifestation of the conscious life. The attempted analysis of the will into its elements of sensations, feelings, and representations is not exhaustive. It overlooks a fundamental aspect which cannot be made the object of a unique observation, namely, the fact that sensations, feelings, etc., never present themselves in an isolated manner. The atomistic theory has legitimate claims as a methodological principle, but not as an exhaustive account of what is really given in conscious life. The author does not care to dispute about terminology. But he rejects, as insufficient, the conception of will employed by psychologists like Lapie, Shand, and Janet, — the view, namely, that 'will' can properly be applied only to those actions done with the clear consciousness of both end and means. From such a conception, the author passes, by a process of elimination, to the conclusion that not even the consciousness of end is necessary for an effort to obtain something of value. Such an effort rests ultimately on an obscure want, which drives the organism in a determinate direction to the accomplishment of an unconscious end. The passage from the involuntary to voluntary phenomena is continuous. There is no chasm between necessity and liberty, and the passage is accomplished involuntarily. The will is intimately connected with the feelings of pleasure and pain. Indeed, our feelings reveal to us our will. Tell me what gives you pleasure, or what gives you pain, and I will tell you what you wish. The author thinks he finds a common two-fold characteristic of all phenomena in this broad field of the psychology of the will: (*a*) The direction of the activity is determined by a preference; and (*b*) especially is it the essential nature of the individual which decides what is to be preferred.

G. W. CUNNINGHAM.

Mathematical Prodigies. FRANK D. MITCHELL. *Am. J. Ps.*, XVIII, 1, pp. 61-143.

Part I of the present paper contains an historical account of a number of the more important mathematical prodigies,—children who, usually at a very early age, and without external tuition, often while still ignorant of written figures, show remarkable ability in mental calculation. Part II contains a brief account of the author's own case, in which the calculating power is slight, but specialized in such a way as to throw considerable light on its origin. Part III develops a new theory of mental calculation. Heredity may play a part in some cases, but cannot be considered an essential factor. Precocity is the rule; in the cases studied, the power appears at an average age of 5 or 6 years. Three considerations help to explain this precocity. (1) Mental arithmetic is self-sufficient and independent of all other knowledge; it can be easily and naturally developed by the child with no other foundation than a knowledge of ordinary counting, and with little or no knowledge of arithmetical terms and definitions. (2) Various symmetries and properties of numbers and series, such as casting out the nines, and, in particular, certain properties of the last two figures

or 'two-figure endings' of numbers in different operations, are gradually discovered at an early stage, and not only lead to short-cuts, but keep up the interest of the child until by practice the calculating habit has become fixed. (3) A vast amount of time is available for practice in calculation, once the child's interest has been turned in that direction; and it is significant that several of the prodigies have been shepherd boys, or have been subject to frequent illness, thus having in either case much enforced leisure for their calculating exercises. Skill in mental calculation is not directly dependent on either general or mathematical education or ability; though indirectly ignorance may favor its development, by preventing the interference of conflicting interests. With reference to calculation, we find that multiplication is the fundamental operation; it may be performed by simple counting in the series of multiples of the multiplicand, or by cross-multiplication, or by the aid of visual dot-patterns, and may begin at either the left or the right of the given numbers. There is no evidence that any of the recorded prodigies depended on an enlarged multiplication table, though this theory has sometimes been proposed. Problems in square and cube root and factoring, though difficult on paper, are readily performed mentally, by the aid of certain properties of the 'two-figure endings' of the given numbers; this is especially true of roots of perfect powers. Simple algebraic problems may be solved either by trial or by true algebraic methods. The 'arithmetical associations' involved in the work may be abridged by omitting unessential links, such as the words 'put down . . . and carry . . . , ' etc., though such abridgment on any considerable scale is probably the exception rather than the rule. The parts played respectively by memory and calculation are often contrasted; but this antithesis is misleading, since in the 'natural' prodigies,—those who begin at an early age, without help from teachers or books,—the process is usually one of true calculation. Even where memory feats have been deliberately practiced as such, memory plays no greater part in mental calculation than in other mental operations. With reference to memory type, it has hitherto been supposed that practically all the prodigies were visual, at least in calculation; but the evidence here presented seems to show that, since most of the prodigies start from verbal counting, before learning written figures at all, the prevalent type is auditory. Several cases, however, are unmistakably visual. Appendix I seeks to show that the charge of vanity and self-glorification brought by Scripture and Binet against Zerah Colburn, one of the prodigies, is unfounded. Appendix II is a synoptic table of the more important prodigies.

F. D. MITCHELL.

ETHICS AND ÆSTHETICS.

Ethical Aspects of Economics. W. R. SORLEY. Int. J. E., XVII, 1, pp. 1-13; 3, pp. 317-329.

Gradually the old controversy between economics and ethics is disappearing, and the subject-matters of the two sciences are approximating more

closely. We recognize that man's motives are at all times more complex than mere wealth-seeking; even the stock-broker has regard for the laws of the land and of the exchange. Laws of economics *per se* are of limited validity. Unlike those of ethics, they claim no obligatory acceptance, but simply offer guidance. The factors in the continuity of the social life which belong to economics do so as aids or obstacles to wealth; goodness or worth cannot be so estimated. The economist measures his values upon a definite, finely-graduated scale; but there is no scale for the ethicist. To give meaning to the desire for wealth, the economist has to take into account ethical forces, the impulses, desires, and purposes of men, whose conduct is also regulated by a sense of duty and by ideas about good and evil, and whose economic activities are affected thereby. He must regard also class distinctions, social institutions, etc., and lastly, the law of the state. Most important of all, in economics the fundamental conception is value, with money as the basis of exchange; but behind this there must be a realm independent of exchange, so that, even if still dealing with economic material, we are forced onward to an ethical enquiry regarding worth. The economist is face to face with the demand for intrinsic value or worth. We want to include the worth of economic products, and at the same time the worth of things quite apart from material goods. The economic standard throughout is, What are you willing to pay? It is that of fact, not of ought. But ethics seeks an objective standard of worth, and demands an ideal; it not only traces the origin, history, etc., of our judgments, but investigates their validity. Economics asks, How is wealth produced, distributed, and consumed? while ethics wants to know what things are good and what evil, and to what degree. Ethics is the general theory of goodness, and we must understand every element of this, if we are to reach a scale of worth. Ethics looks at life as a whole, an organization of our experience from its own point of view, with due regard for all forces at work in society. It is the science of an ideal, of what ought to be, as distinguished from what has been, is now, or is to be. Our ethical judgments are constantly mistaken. Perhaps the test of moral truth is to be found, like that of science, in a system covering the whole of life, and free from internal contradiction. To attain this, a broad outlook is required, and social forces must be understood. Ultimately we can appeal to the moral judgment of the good man, and this will not be found lacking.

MARGARET K. STRONG.

What do Religious Thinkers owe to Kant? GEORGE GALLOWAY. The Hibbert Journal, V, 3, pp. 639-659.

The influence that Kant has exerted in the world of thought has been due not so much to the system of philosophy which he attempted to work out, as to his fertility of suggestion. This is particularly true of his influence on religious thought. In his treatise, *Religion within the Limits of Mere Reason*, he does, indeed, insist on one idea that has gained extended

consideration in later discussions, the idea, namely, that it is possible to distinguish an essential and a non-essential element in existing religion. But his influence is due much less to his formal discussion of religion than to the suggestiveness of his general philosophy. (1) From an epistemological point of view, Kant rendered a signal service to religion in limiting the province of science. He showed that the methods of science are relative only and not absolute, and thus ruled out the materialistic arguments against religion. In close connection with this insistence on the limitations of science, — limitations which such scientists as Mach and Poincaré clearly recognize, — Kant emphasizes the distinction between the causal and the teleological points of view; and in these directions many theologians have followed his lead. (2) The distinction which Kant drew between theoretical and practical knowledge has had a great influence on theological writers. This distinction has gained wide currency in theology, which, in distrust of speculative methods, has joined in the general movement 'back to Kant'; and, as a reaction against the formal rational proofs of the older theology, this tendency is not to be regretted. (3) Closely connected with the preceding is Kant's insistence on a world of moral values. This insistence logically leads to a distinction between the notions of reality and value, which distinction such idealistic thinkers as Plato and Hegel deny. In this separation of the problems of existence and value, Kant has been followed by Herbart and Lotze, and later by Ritschl, who maintains that content can be given to the conception of God only through value judgments. Even Pfeiderer and Siebeck, who are not antagonistic to speculative philosophy, fully admit the claims of the value-judgment in this connection. Royce, James, and Höffding, in the realm of psychology, also agree to give a place of more or less importance to the value-judgment. This tendency, however, to distinguish between reason and feeling, and to exclude the former from religion, is in danger of reducing theology to a phenomenology of the religious consciousness. (4) Finally, the high importance attached by Kant to the moral personality has had a salutary influence on both religious and philosophical discussions. No monistic principle of unity (which the inconsistency of Kant's own philosophy shows is necessary) can safely ignore or try to explain away the significance of man's moral personality. In the fact that both Scientific Evolution and Absolute Idealism fail adequately to provide for the realm of personal values, lies their essential deficiency.

G. W. CUNNINGHAM.

Esthétique et psychologie. A. BERTRAND. Rev. Ph., XXXII, I, pp. 33-66.

Maine de Biran is a psychologist who is a stranger to the æsthetic ideas of a Ruskin or a Taine. Indeed, historians have been unanimous in judging Biran incapable of a sympathetic attitude toward art, simply because of his peculiar psychological prepossessions. But, as it is the purpose of the present article to show, manuscript fragments indicate that Biran

himself was an æsthetician of original powers. In his consideration of the basis of absolute as distinguished from relative beauty, he rejects both the naturalistic conception of imitation and the idealistic theory of types or archetypes. His view is an intermediate, 'eclectic' one. As to imitation, he maintains that in the earliest architectural productions there is more than mere imitation. Even here, man adds to nature; he does not copy, but translates and interprets. In music (an art which Biran cultivated), he finds the theory of imitation not less indefensible. Imitation does seem to play an important rôle in the plastic arts, but here often we are furnished indisputable proofs of its insufficiency. If imitation is correctly understood, it may be given an important function in the arts; but it is highly important that it should be correctly understood. For the artist never copies nature only, but rather interprets the feeling which nature arouses in the depths of his own soul. Æsthetic idealism is also insufficient. It follows the customs, degrees of sensibility, etc., of nations and of individuals. Truth in art has a wide range; to discover the appropriate truth is the part of genius. The general is not the true, but is rather the artificial and conventional. Art abhors the general. The artistic tendency to idealize is entirely different from the operation by which ideas of classes and genera are created. The artist copies ideas no more than he imitates nature. Biran's peculiar contribution to æsthetic discussion is his conception of *analogie sentimentale*, in which phrase the term *sentiment* is used in the sense attached to it by Malebranche. The significance of the conception is that the principle of unity in artistic production is the unity of life itself, and not of artificial abstraction. Art results from inspiration and enthusiasm, not from a formal, logical process. In justification of the above interpretation, the author gives copious extracts from Biran's writings.

G. W. CUNNINGHAM.

Anarchisme et individualisme : Essai de psychologie sociale. G. PALANTE.
Rev. Ph., XXXII, 4, pp. 337-365.

Though these two words are often used interchangeably, they are not synonymous. The one refers to a social system, the other to a simple attitude of thought or feeling. Individualism is a spirit of antisocial revolt, an assertion of the individual's own strength against the determining social forces about him, a sense of utter disproportion between his aspirations and his destiny. In some men, however, we find only disdain instead of defiance, an individualism scarcely rising above the ordinary discontent which makes for change and progress. But along with this courageous revolt, goes a feeling that the effort is useless; society is too powerful, too resourceful, too hostile. Even when the minority triumphs, it at once becomes a new tyrannical majority. Individualism is essentially a social pessimism, a feeling of the hopeless and irreducible antinomy between the individual and society. Anarchism, on the other hand, is the revolt of a group, however small, and is optimistic, hoping ultimately to reconcile the individual

and society. It rests on the two principles of liberty (self-development) and humanism (altruism, communism), which, though both optimistic, are really antagonistic, as the keener anarchistic writers now appreciate. Individualism is philosophically opposed both to the Christian metaphysics of original perversity, and to the anarchistic metaphysics of original goodness; it faces the facts, finding in man a bundle of conflicting instincts, and in society a group of contending individuals, with no possibility of harmony in either case. Anarchism believes in progress; individualism views things statically, unhistorically. The one is idealism exasperated and gone mad; the other is pitiless realism. The one is antisocial only relatively; the other, absolutely. Anarchism would resolve the antinomy between the individual and the state by suppressing the state and exalting society; individualism regards society as no less tyrannical than the state, as, in fact, the source of all state tyranny. Individualism is here more consistent; anarchism finds it really impossible to reconcile society with individual freedom. Anarchism accepts, at bottom, the Christian morality; individualism, being antisocial, tends also to become anti-moral, or at least to brand society as hypocritical and immoral. The one is a social dogmatism, active, working for a 'cause,' an 'idea'; the other is anti-dogmatic, meditative, little inclined to proselyting, on the principle 'omne individuum ineffabile.' Anarchism is characterized by intellectualism; it worships Science with a capital S, and tends to substitute authority for intellectual liberty. The vague biological idea of evolution functions for it as a *deus ex machina* to remove all difficulties. All this pseudo-science, no less dogmatic because inexact, individualism rejects; it has no undue enthusiasm even for the particular sciences. The individualist's practical problem is, how to live in a society which is at best a necessary evil; he offers us an exoteric 'eudemonology,' an unphilosophical compromise with society, a partial freedom, by reducing external relations and influences to a minimum, and adopting various rules of intellectual and moral conduct, such as cultivating social scepticism, ignoring other men, avoiding the beaten track, and the like. At present anarchism, both as a party and as a doctrine, seems to be entering upon a period of dissolution, tending to resolve itself into individualism or communism, according to which of its two conflicting principles is emphasized. Individualism, on the other hand, seems destined to last as long as society itself.

F. D. MITCHELL.

NOTES.

We give below a list of the articles, etc., in the current philosophical periodicals :

MIND, NO. 64: *Alexander F. Shand*, M. Ribot's Theory of the Passions ; *G. Galloway*, The Idea of Development and Its Application to History ; *D. H. MacGregor*, The Inductive Argument for Design ; *R. F. Alfred Hoernlé*, Professor Baillie's " Idealistic Construction of Experience " ; *George Stuart Fullerton*, Realism and Infinite Divisibility ; Critical Notices ; New Books ; Philosophical Periodicals ; Note.

THE HIBBERT JOURNAL, VI, 1 : *F. J. E. Woodbridge*, Naturalism and Humanism ; *L. P. Jacks*, The Universe as Philosopher ; *Robert Mackintosh*, Are We Parts of Nature ? *G. F. Barbour*, Progress and Reality ; *N. Macnicol*, Action and Reaction of Christianity and Hinduism in India ; *Maud Joynt*, The Gospel of Krishna and of Christ ; *David Purves*, The State of the Dead ; *James Seth*, On Certain Alleged Defects in Christian Morality ; *B. W. Bacon*, The " Defence " of the Fourth Gospel ; *Henry Goodwin Smith*, Trust, Faith, Belief, Creed ; *G. Henslow*, " Directivity " ; *Hugh Maccoll*, What and Where is the Soul ? *T. C. Hall*, Was John Calvin a Reformer or a Reactionary ? Discussions ; Reviews ; Bibliography of Recent Literature.

INTERNATIONAL JOURNAL OF ETHICS, XVIII, 1 : *Warner Fite*, The Theory of Democracy ; *David J. Brewer*, Law and Ethics ; *R. F. Alfred Hoernlé*, The Conception of Possibility in its Relation to Conduct ; *Walter L. Sheldon*, Modern Classifications of Duties and Virtues ; *Helen Wodehouse*, Fragments of a Statement of Idealism ; *Frank N. Freeman*, The Ethics of Gambling ; *J. J. Findlay*, The Parent and the School ; *A. C. Pigou*, Some Points of Ethical Controversy ; Book Reviews.

THE AMERICAN JOURNAL OF PSYCHOLOGY, XVIII, 3 : *Alfred A. Cleveland*, The Psychology of Chess and of Learning to Play It ; *L. R. Geissler*, Fluctuations of Attention to Cutaneous Stimuli ; *Guy Montrose Whipple*, A Quick Method for Determining the Index of Correlation ; *E. M. Bolger* and *E. B. Titchener*, Some Experiments on the Associative Power of Smell ; *J. E. Coover* and *Frank Angell*, General Practice Effect of Special Exercise ; *Arthur H. Pierce*, Gustatory Audition : A Hitherto Undescribed Variety of Synæsthesia ; *William C. Ruediger*, The Period of Mental Reconstruction ; Psychological Literature ; The Proceedings of the Philadelphia Meeting of Experimental Psychologists.

THE PSYCHOLOGICAL REVIEW, XIV, 5 : *W. M. Urban*, The Nature of Feeling and Will and Their Relations ; *R. W. Sellars*, A Fourth Progression in the Relation of Body and Mind ; *Helen T. Woolley*, Sensory Affection and Emotion ; *Max Meyer*, An Experimental Course in Æsthetics.

THE PSYCHOLOGICAL BULLETIN, IV, 9: *E. G. Spaulding*, The Physical Basis of Conduct; Psychological Literature; Books Received.

IV, 10: *Edgar J. Swift* and *William Schuyler*, The Learning Process; Psychological Literature; Books Received; Notes and News.

THE MONIST, XVII, 4: *Wilhelm Ostwald*, The Modern Theory of Energetics; *Editor*, Professor Ostwald's Philosophy; *Otto Pfeleiderer*, The Evolution of Christianity; *William Ellery Leonard*, Empedocles, the Man, the Philosopher, the Poet; *Augustus Grote Pohlman*, The Heredity of the Upright Position and Some of its Disadvantages; *Lawrence H. Mills*, Avesta Eschatology Compared with the Books of Daniel and Revelation (concluded); Criticisms and Discussions; Book Reviews and Notes.

THE JOURNAL OF PHILOSOPHY, PSYCHOLOGY, AND SCIENTIFIC METHODS, IV, 17: *Evander Bradley McGilvary*, Prolegomena to a Tentative Realism; *William Adams Brown*, The Pragmatic Value of the Absolute; *William James*, Professor Pratt on Truth; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IV, 18: *Lucinda Pearl Boggs*, The Psychology of the Learning Process; Discussion; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IV, 19: *George Stuart Fullerton*, The Doctrine of the Eject (I); *Fred-eric Lyman Wells*, Standard Tests of Arithmetical Associations; *G. A. Tawney*, Professor Fite on the Exaggeration of the Social; Societies; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IV, 20: *John E. Boodin*, The New Realism; *E. A. Kirkpatrick*, A Broader Basis for Psychology Necessary; *William James*, The Absolute and the Strenuous Life; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

IV, 21: *George Stuart Fullerton*, The Doctrine of the Eject (II); *A. W. Moore*, Professor Perry on Pragmatism; Reviews and Abstracts of Literature; Journals and New Books; Notes and News.

ARCHIV FÜR GESCHICHTE DER PHILOSOPHIE, XIII, 4: *Max Wundt*, Die Philosophie des Heraklit von Ephesus im Zusammenhang mit der Kultur Ioniens; *Otto Baensch*, Die Entwicklung des Seelenbegriffs bei Spinoza als Grundlage für das Verständnis seiner Lehre vom Parallelismus der Attribute (II); *Ernst Appel*, Leone Medigos Lehre vom Weltall und ihr Verhältnis zu griechischen und zeitgenössischen Anschauungen (II); *Albert Goedeckemeyer*, Gedankengang und Anordnung der aristotelischen Metaphysik (I); *R. Witten*, Über die geschichtliche Bedingtheit Kants; *Max Brahn*, Berichte über die Kant-Literatur von 1903-1907; Die neuesten Erscheinungen auf dem Gebiete der Geschichte der Philosophie; Zeitschriften.

VIERTELJAHRSSCHRIFT FÜR WISSENSCHAFTLICHE PHILOSOPHIE UND SO-

CIOLOGIE, XXXI, 3: *Georg Wernick*, Der Wirklichkeitsgedanke (V); *Julius Pihler*, Beschreibung und Einschränkung; Besprechungen über Schriften; Zeitschriften; Bibliographie.

ZEITSCHRIFT FÜR PSYCHOLOGIE, XLV, 6: *Erich Becher*, Kritik der Widerlegung des Parallelismus auf Grund einer "naturwissenschaftlichen" Analyse der Handlung durch Hans Driesch; *Willi Warstat*, Der Bilderahmen; Literaturbericht.

XLVI, 1: *Robert v. Sterneck*, Die Referenzflächentheorie der scheinbaren Grösse der Gestirne; *Ludwig Töröck*, Über das Wesen der Juckempfindung; Besprechungen; Literaturbericht; Gesellschaft für experimentelle Psychologie.

XLVI, 2: *Erich Becher*, Das Gesetz von der Erhaltung der Energie und die Annahme einer Wechselwirkung zwischen Leib und Seele; *R. Hertz*, Überblick über die Geschichte und den gegenwärtigen Stand des psychophysiologischen Problems der Augenbewegung; Literaturbericht.

REVUE PHILOSOPHIQUE, XXXII, 8: *E. Boirac*, La cryptopsychie; *F. Paulhan*, Herbert Spencer d'après son autobiographie; *R. Cousinet*, Le rôle de l'analogie dans les représentations du monde extérieur chez les enfants; Analyses et comptes rendus; Revue des périodiques étrangers.

XXXII, 9: *G. Truc*, Les conséquences morales de l'effort; *F. Le Dantec*, L'ordre des sciences (fin); *J. Paulhan*, L'imitation dans l'idée du moi; *L. Bélugou*, Sur une cas de paramnésie; *H. Piéron*, Explication ou expression: Critique des théories psychologiques; Analyses et comptes rendus; Revue des périodiques étrangers; Notices bibliographiques.

XXXII, 10: *J. de Gaultier*, La dépendance de la morale et l'indépendance des mœurs; *L. Dugas*, La définition de la mémoire; *D. Parodi*, Morale et raison; *Robet*, Études de philosophie religieuse; Analyses et comptes rendus.

REVUE DE PHILOSOPHIE, VII, 8: *Paul-Joseph Cuhe*, Étude sur le monisme; *L.-M. Billia*, L'idéalisme n'est-il pas chrétien? *C. Lucas de Pesloüan*, Sur les fondements de l'arithmétique (fin); Analyses et comptes rendus; Notices bibliographiques.

VII, 9: *P. Duhem*, Le mouvement absolu et le mouvement relatif; *E. Héritier*, La personnalité; *J. Baylac*, Deux systèmes récents de morale; *C.-C. Charaux*, Esprit et matière; Analyses et comptes rendus; Périodiques.

VII, 10: *J. Gardair*, L'infinité divine; *André Joussain*, La genèse de la notion du droit dans l'âme individuelle; *P. Duhem*, Le mouvement absolu et le mouvement relatif (II); *F. Warrain*, Sur un essai de synthèse philosophique; Analyses et comptes rendus; L'enseignement philosophique.

REVUE DE MÉTAPHYSIQUE ET DE MORALE, XV, 4: *B. Jacob*, Le matérialisme historique; *F. Maillieux*, La méthode des jurisconsultes (I); *E. Le Roy*, Comment se pose le problème de Dieu (fin); *G. Lechalas*, Sur un détail des travaux de M. Claparède concernant le témoignage; *Ed. Clapa-*

rède, La capacité de bon témoignage ; *J. Wilbois*, La pensée catholique en France au commencement du XX^e siècle (fin) ; Livres nouveaux ; Revues et périodiques ; Thèses de doctorat.

XV, 5 : *M. Calderoni*, La prévision dans la théorie de la connaissance ; *P. Lacombe*, De l'esprit classique dans la Révolution française (selon Taine) ; *Charles Rist*, Économie optimiste et économie scientifique ; *Louis Weber*, L'évolution créatrice par Henri Bergson ; *C. Bouglé*, Les syndicats de fonctionnaires et les transformations de la puissance publique ; La philosophie dans les universités ; Nécrologie ; Livres nouveaux ; Revues et périodiques ; Agrégation de philosophie.

REVUE NÉO-SCOLASTIQUE, XIV, 3 : *Clément Besse*, Lettre de France. Pour l'intellectualisme ; *Jean Halleux*, Les preuves de l'existence de Dieu (suite) ; *S. Deploige*, Le conflit de la morale et de la sociologie (suite) ; *Jos. Gredt*, Homogénéité ou hétérogénéité du mixte ; *Edgar Janssens*, Bulletin d'histoire de philosophie moderne ; *Amato Masnovo*, Note à propos de la méthode de nos traités de théologie naturelle ; Chronique philosophique ; Bulletin de l'Institut de Philosophie ; Comptes-rendus.

JOURNAL DE PSYCHOLOGIE NORMALE ET PATHOLOGIQUE, XIV, 5 : *A. Marie*, Sur quelques troubles fonctionnels chez certains débiles mentaux ; *Dromard*, De la dissociation de la mimique chez les aliénés ; *H. Piéron*, La théorie des émotions et les données actuelles de la physiologie ; Société de Psychologie ; Bibliographie.

RIVISTA FILOSOFICA, X, 3 : *A. Faggi*, Nominalismo e realismo geometrico ; *G. Salvadori*, Fede e ragione ; *G. Mazzaloroso*, Conoscere — operare ; *G. Nolli*, A proposito di libertà ; *R. Montuori*, Dualismo biologico e limiti della responsabilità penale (fine) ; Rassegna bibliografica ; Notizie e pubblicazioni ; Sommari delle riviste straniere ; Libri ricevuti.

INDEX.

[N. B. — (a) stands for original articles, (b) for book notices, (d) for discussions, (n) for notes, (r) for reviews of books, and (s) for summaries.]

A

- Absolute, The Ugly Infinite and the Good-for-nothing, (a) 136.
Activity, The Nature of Conation and Mental, (s) 225; On the, of the Will, and Thought, (b) 98.
Adler, Felix, (n) 465.
Æsthetic Experience, The, Its Meaning in a Functional Psychology, (b) 660.
Æsthetic Value of the 'Lower Senses,' The Reasons for the Slight, (s) 112.
Æsthetics and Psychology, (s) 671.
Affective Elements of Conception, The, (s) 348.
Affective Exchange and Economic Exchange, (s) 223.
Affective Imagination, On the, (s) 572
Affective Sensations, On, (s) 346.
Albee, Ernest, (n) 573.
American Philosophical Association, Proceedings of the Sixth Annual Meeting of the, (s) 50; List of Members of the, 65.
Anarchism and Individualism, (s) 672.
Antinomies, Kant's, and Zeno's Proofs against Motion, (s) 349; Pure Reason and the, (b) 651.
Apollonius of Tyana, and Other Essays, (r) 442.
'A Priori,' The, in Science, (s) 224.
Aristotle, The Theory of God in the Metaphysics of, (b) 170.
Art, The Criticism of, (s) 230; What is, (s) 230; The Sense of, (b) 340.
Attention, (b) 96; The Physiology and Psychology of, (b) 450; Spontaneous, in Ordinary Life and its Practical Applications, (s) 228.

Avenarius, Richard, The Empirio-Criticism of, (s) 663.

B

- Baird, J. W., (n) 573.
Bawden, H. Heath, (n) 573.
Beauty, The Psychology of, (r) 86.
Belief, Reason in, (b) 555
Believe at One's Own Risk, The Right to, (a) 408.
Body and Soul, (b) 207.
Botany, The Philosophy of, (r) 644.
Bruno, Giordano, The Italian Works of, (b) 450.

C

- Caird, Edward, (n) 465.
Cantoni, Senatore Carlo, (n) 113.
Carleton, John, (n) 113.
Causality, (a) 117.
Cognition, Greek Theories of, from Alcmaeon to Aristotle, (b) 205.
Colvin, Stephen S., (n) 573.
Conation, The Nature of, and Mental Activity, (s) 225.
Concept of the Will, The, (s) 667.
Conception, The Affective Elements of, (s) 348; The, of Moral Goodness, (a) 144.
Conceptions, The Limitations of the, of the Natural Sciences, (s) 348.
Concepts of Philosophy, The, (r) 425.
Concreteness of Thought, The, (a) 154.
Conditional Ethics, (s) 463.
Consciousness, On the Analysis of the Memory-, (s) 226; The Organization of the Moral, (b) 551; Of Value, Definition and Analysis of the, (s) 460; Essays on the Theory of, (b) 91.

Consistency, Constitutive, (a) 21.
 Constitution of Thought, The, (s) 220.
 Constitutive Consistency, (a) 21.
 Contemporary Philosophy, in Germany (1906), (a) 237; In France (1906), (a) 357; Logic and, (s) 222.
 Convenience, Scientific, and Its Consequences, (s) 105.
 Cook, Helen D., (n) 465.
 Criticism, The, of Art, (s) 230; Kant's Antithesis of Dogmatism and, (s) 104; Of the Psychologists' Treatment of Knowledge, A, (s) 562.
 Cultura Filosofica, La, (n) 233.

D

Death, On Life after, (b) 209.
 Descartes, His Life and Times, (b) 94.
 Descriptive and Normative Sciences, (a) 40.
 Determinism and Indeterminism in Motives, (a) 298, (d) 616.
 Development, The Origin and, of the Moral Ideas, (r) 70; of Symbolic Logic, (r) 190.
 Dialogues concerning Natural Religion, Hume's, (b) 338.
 Dogmatism and Criticism, Kant's Antithesis of, (s) 104.
 Doubt, Philosophic, Pragmatism as the Salvation from, (s) 567.

E

Economic Exchange and Affective Exchange, (s) 223.
 Economics, Ethical Aspects of, (s) 669.
 Ego, The, and Empirical Psychology, (a) 387.
 Emotions, Intellectualism and the Physiological Theory of the, (s) 111.
 Empirio-Criticism, The, of Richard Avenarius, (s) 663.
 Energies of Men, The, (a) 1.
 English Philosophy, The Conception of the Unknown in, (s) 352.
 Epistemology, Introduction to, (b) 657; Psychophysical Parallelism and, (s) 221; The, of the Natural Science of the Present, (b) 214.

Essays on the Theory of Consciousness, (b) 91.
 Ethical Aspects of Economics, (s) 669.
 Ethics, (b) 213; Conditional, (s) 463; Scientific, (b) 212; Spinoza's, (s) 349.
 Eucken's Philosophy of Life, (b) 548.
 Evolution, The, of Immortality, (b) 209; Morals in, (r) 527.
 Ewer, Dr., On the Freedom of the Will, (d) 616.
 Exchange, Economic and Affective, (s) 223.
 Existence, Some Problems of, (b) 550.
 Experience, The Aesthetic, (b) 660; An Outline of the Idealistic Construction of, (r) 538; Pure, and Reality, (a) 266, (d) 419, (d) 422.
 Experimental Theory of Knowledge, The, (s) 107.

F

Faust, The Philosophy of Goethe's, (b) 552.
 Feelings, On Sensory, (s) 346.
 Ferree, Clarence E., (n) 465.
 Fichte, J. G., (n) 113; The Philosophy of, in Its Relation to Pragmatism, (a) 488; The Fundamental Principle of the Philosophy of, (r) 437.
 Fischer, Kuno, (n) 113, 573.
 Floating Ideas and the Imaginary, (s) 219.
 Folk-Psychology, (r) 200.
 France, Philosophy in, (1906), (a) 357.
 Franz, Shepherd Ivory, (n) 354.
 Fraser, A. Campbell, (n) 113.
 Freedom of the Will, Dr. Ewer on the, (d) 616.
 Fundamental Principle of Fichte's Philosophy, The, (r) 437.

G

Garman, Charles, (n) 232.
 General Ideas of Psychology, (r) 328.
 Germany, Contemporary Philosophy in (1906), (a) 237; The History of Modern Philosophy in, since Hegel, (r) 83.
 God, How to State the Problem of, (s)

- 566; Leibniz's Conception of, (b) 553; The Theory of, in Aristotle's *Metaphysics*, (a) 170.
- Goethe's *Faust*, The Philosophy of, (b) 552.
- Goodness, The Conception of Moral, (a) 144.
- Greek Theories of Elementary Cognition from *Alcmæon* to Aristotle, (b) 205.
- H
- Hart, Charles Edward, (n) 114.
- Harvard Psychological Studies, Vol. II, (r) 543.
- Historical Standards of Value in the Philosophy of History among Historians and in the Popular Consciousness, (b) 452.
- History, The, of Philosophy as Introduction to the System of Philosophy, (r) 634; The, of Modern German Philosophy since Hegel, (r) 83.
- Hocking, W. E., (n) 354.
- Hollands, Edmund H., (n) 465.
- Hume, David, Dialogues concerning Natural Religion by, (b) 338.
- Hypotheses of Natural Science, The, (s) 101.
- I
- Idea, Image, and Meaning, (s) 563.
- Idealism, The Old, and The New Realism, (s) 106; Science and, (b) 95.
- Idealistic Construction of Experience, An Outline of the, (r) 538; Thesis, The First Words of the, (s) 105.
- Ideas, On Floating, and the Imaginary, (s) 219; General, of Psychology, (r) 328.
- Idola Theatri*, (r) 78.
- Image, Idea, and Meaning, (s) 563.
- Imaginary, On Floating Ideas and the, (s) 219.
- Imagination, On the Affective, (s) 572.
- Immortality, The Evolution of, (b) 209; Individuality and, (b) 209; On Life After Death, (b) 209.
- Indeterminism, Determinism and, in Motives, (a) 298, (d) 616.
- Individual, Poetry and the, (b) 215.
- Individualism, Anarchism and, (s) 672.
- Individuality and Immortality, (b) 209.
- Infinite, The Ugly, and the Good-for-nothing Absolute, (a) 136.
- Intellectualism, and the Physiological Theory of the Emotions, (s) 111; Against, in Psychology, (s) 227.
- Introduction, to Epistemology, (b) 657; to Philosophy, (b) 212.
- Irons, David, (n) 232.
- Italian Works of Giordano Bruno, (b) 450.
- J
- James, William, (n) 233.
- Judgment, Kant's Classification of the Forms of, (a) 588; Some Inadequacies of Modern Theories of, (s) 459.
- Juvalta, Professor, (n) 113.
- K
- Kant, and the Present Problem of Logic, (s) 346; The Antinomies of, and Zeno's Proofs against Motion, (s) 349; The Antithesis of Dogmatism and Criticism of, (s) 104; The Classification of the Forms of Judgment of, (a) 588; What Religious Thinkers Owe to, (s) 670; Pure Reason and the Antinomies of, (b) 651.
- Knowledge, A Criticism of the Psychologist's Treatment of, (s) 562; The Experimental Theory of, (s) 107; The Objects of, (a) 577.
- L
- deLaguna, Theodore, (n) 465.
- Language, Thought and, (s) 565.
- Laughter, The Psychological Function of, (s) 569.
- Leibniz's Conception of God, (b) 553.
- Life, The, of Reason, Vols. III, IV, and V, (r) 195; After Death, On, (b) 209.
- Limitations, The, of the Conceptions of the Natural Sciences, (s) 343.
- Logic, Kant and the Present Problem of, (s) 346; And Contemporary Philosophy, (s) 222; Rational, and Psychologism, (s) 458; Outlines of a, as Science of the Pure Concept, (b)

334; Symbolic, and its Applications, (r) 190; Symbolic, The Development of, (r) 190; Mnemonic Verses in a Ninth Century Ms., (a) 519.
 Lotze, Mechanism and Teleology in the Philosophy of, (s) 351.
 'Lower Senses,' Reasons for the Slight Æsthetic Value of, (s) 112.

M

Magic, From the Spirit of, to the Spirit of Science, (s) 571.
 Material of Thought, The, (a) 285.
 Mathematical Prodigies, (s) 668.
 Mathematics, The Principles of, (b) 333.
 Meaning, Idea, and Image, (s) 563.
 Mechanism and Teleology in Lotze's Philosophy, (s) 351.
 Meditations Epistemological and Ontological, (r) 639.
 Memory Consciousness, on the Analysis of the, (s) 226.
 Mental Activity, The Nature of Conation and, (a) 225.
 Metaphysics, The Theory of God in Aristotle's, (a) 170; The Necessity of, (s) 110.
 Meumann, Ernst, (n) 354.
 Miller, Dickinson S., (n) 233.
 Mnemonic Verses in a Ninth Century Manuscript, (a) 519.
 Möbius, P. J., (n) 233.
 Monism, The Objections to, (s) 109.
 Moral, Consciousness, The Organization of the, (b) 551; Goodness, The Conception of, (a) 144; Ideas, The Origin and Development of the, (r) 70; Sciences, On a False Demand of Reason in the, (s) 667.
 Morality, Conditional, (s) 463; Scientific, (b) 212; Studies of Positive, (b) 446.
 Morals in Evolution, (r) 527.
 Morando, Giuseppe, (n) 113.
 Motion, Kant's Antinomies and Zeno's Proofs against, (s) 349.
 Motives, Determinism and Indeterminism in, (a) 298, (d) 616.
 Movement, The Psychology of Organic, (s) 348

Myths, The, of Plato, (r) 433.

N

Necessity of Metaphysics, The, (s) 110.
 Newlin, W. J., (n) 465.
 Normative Sciences, Descriptive and, (a) 40.
 Nothingness, The Idea of, (s) 458.

O

Objects of Knowledge, The, (a) 577.
 Organic Movement, The Psychology of, (s) 348.
 Organization, The, of the Moral Consciousness, (b) 551.
 Origin, The, and Development of the Moral Ideas, (r) 70.
 Outline, An, of the Idealistic Construction, of Experience, (r) 538; Of Logic as Science of the Pure Concept, (b) 334; Of the Vedanta System of Philosophy, (b) 340.

P

Parallelism, Psychophysical, and Epistemology, (s) 221.
 Palmer Fellowship, The Alice Freeman, (n) 465.
 Passions, The, How They End, (s) 228; What is a, (s) 111.
 Perception, In What Sense Two Persons Perceive the Same Thing, (n) 506.
 Person and Thing, (r) 322.
 Philolaus, (s) 350.
 Philosophical Association, Proceedings of the American, (s) 50.
 Philosophy, The, of Botany, (r) 644; Concepts of, (r) 425; Contemporary German (1906), (a) 237; English, The Conception of the Unknown in, (s) 352; Rudolf Eucken's, (b) 548; Fichte's, in Its Relation to Pragmatism, (a) 488; in France (1906), (a) 357; The Fundamental Principle of Fichte's, (r) 437; Of Goethe's Faust, The, (b) 552; The History of, as Introduction to the System of, (r) 634; The History of Modern German, since Hegel, (r) 83; Of History, Historical

- Standards of Value in the, (b) 452; Introduction to, (b) 212; Logic and Contemporary, (s) 222; Mechanism and Teleology in Lotze's, (s) 351; An Outline of the Vedanta System of, (b) 340; Southern Society for, and Psychology, The, (n) 114; Studies in, and Psychology, (r) 312; The Syllogistic, (b) 447.
- Physiological Theory of the Emotions, Intellectualism and the, (s) 111.
- Physiology and Psychology of Attention, The, (b) 450.
- Pitkin, Walter B., (n) 354.
- Plato, (b) 548; The Myths of, (r) 433; The Philosophical Development of, (r) 184; And Protagoras, (a) 469.
- Poetry and the Individual, (b) 215.
- Positive Morality, Studies of, (b) 446.
- Possibility and Reality, (a) 604.
- Pragmatism: A New Name for Some Old Ways of Thinking, (r) 624; Note on the Pragmatic Value of, (s) 666; The Philosophy of Fichte in Its Relation to, (a) 488; Prolegomena to an Apology for, (s) 564; And Pseudo-Pragmatism, (s) 107; Realism and, (s) 108; As the Salvation from Philosophic Doubt, (s) 567.
- Principles of Mathematics, The, (b) 333.
- Problems of Existence, Some, (b) 550.
- Proceedings of the Sixth Annual Meeting of the American Philosophical Association, (s) 50.
- Prodigies, Mathematical, (s) 668.
- Prolegomena to an Apology for Pragmatism, (s) 564.
- Protagoras, Plato and, (a) 519.
- Pseudo-Pragmatism, Pragmatism and, (s) 107.
- Psychological Clinic, The, (n) 354.
- Psychological Questions of Principle, (s) 102; Studies, Harvard, Vol. II, (r) 543.
- Psychologism, Rational Logic and, (s) 458.
- Psychologist's Treatment of Knowledge, A Criticism of the, (s) 562.
- Psychology, Æsthetics and, (s) 671; Of Attention, The, (b) 450; Of Beauty, The, (r) 86; The Ego and Empirical, (a) 387; Folk-, (r) 200; Functional, The Meaning of the Æsthetic Experience in, (b) 660; Functional, The Province of, (s) 568; General Ideas of, (r) 328; Of Individuals and Societies, The, in Taine, (b) 654; Against Intellectualism in, (s) 227; Of Laughter, The, (s) 569; Of Organic Movement, The, (s) 348; Quantitative, (s) 570; Southern Society for Philosophy and, The, (n) 114; Studies in Philosophy and, (r) 312.
- Psychophysical Parallelism and Epistemology, (s) 221.
- Pure Experience and Reality, (a) 266, (d) 419, (d) 422.
- Pure Reason and the Antinomies, (b) 651.

R

- Rationalism, The History of English, in the Nineteenth Century, (b) 649.
- Realism, Current Misconceptions of, (s) 459; The New, and the Old Idealism, (s) 106; And Pragmatism, (s) 108.
- Reality, The Conception of, (s) 455, 560; Possibility and, (a) 604; Pure Experience and, (a) 266, (d) 419, (d) 422; Space and, (s) 110; The Structure of, (s) 664.
- Reason, in Belief, (b) 555; On a False Demand of, in the Moral Sciences, (s) 667; The Life of, (r) 195; Pure, and the Antinomies, (b) 651; The Value of Human, (s) 561.
- Religion, Hume's Dialogues on Natural, (b) 338; Spinoza and, (b) 339.
- Religious Conception of the World, The, (b) 555; Thinkers, What They Owe to Kant, (s) 670.
- Revue des sciences philosophiques et théologiques, (n) 113, 233.
- Right to Believe at One's Own Risk, The, (a) 408.
- Riley, I. Woodbridge, (n) 233.
- Rivista filosofica, (n) 113; Rosminiana, (n) 113.

S

- Sabine, George H., (n) 233.
 Santayana, George, (n) 573.
 Science, The 'a priori' in, (s) 224;
 On the Epistemology of Natural, at
 the Present Time, (b) 214; On the
 Hypotheses of, (s) 101; And Ideal-
 ism, (b) 95; Natural, the Limitations
 of the Conceptions of, (s) 343; From
 the Spirit of Magic to the Spirit of,
 (s) 571.
 Sciences, Descriptive and Normative,
 (a) 40.
 Scientific Convenience and its Conse-
 quences, (s) 105; Ethics (b) 212.
 Sensations, On Affective, (s) 346.
 Sense, The, in Which Two Persons Per-
 ceive the Same Thing, (a) 506; Of
 Art, The, (b) 340.
 Senses, 'Lower,' The Reasons for the
 Slight Æsthetic Value of the, (s) 112.
 Sensory Feelings, On, (s) 346.
 Sex and Society, (b) 655.
 Smith, Walter, (n) 233.
 Society, Sex and, (b) 655.
 Sociology, Abstract, and Its Divisions
 (s) 229.
 Soul, Body and, (b) 207.
 Southern Society for Philosophy and Psy-
 chology, (n) 114.
 Space and Reality, (s) 110.
 Spinoza, (b) 336; and His Contempo-
 raries, (s) 463; The Ethics of, (s)
 349; And Religion, (b) 339.
 Spontaneous Attention in Ordinary Life,
 (s) 228.
 Stuart, Henry, (n) 354.
 Studies, of Positive Morality, (b) 446;
 In Philosophy and Psychology, (r)
 312 Harvard Psychological, (r) 543.
 Syllogistic Philosophy, The, (b) 447.
 Symbolic Logic, and Its Applications,
 (r) 190; The Development of, (r)
 190.
 Synthetica, Being Meditations Episte-
 mological and Ontological, (r) 639.

T

- Taine's Psychology of Individuals and
 Societies, (b) 654.
 Teleology, Mechanism and, in Lotze's
 Philosophy, (s) 351.
 Theory of God, The, in Aristotle's Meta-
 physics, (a) 170.
 Thought, On the Activity of the Will
 and, (b) 294; The Concreteness of,
 (a) 154; The Constitution of, (s)
 220; And Language, (s) 565; The
 Material of, (a) 285.
 Tijdschrift voor Wijsbegeerte, (n) 465.
 Time Quality, The, (s) 457.
 Truth, On, (s) 665; And Copying, On,
 (s) 665.

U

- Unknown, The Conception of the, in
 English Philosophy, (s) 352.

V

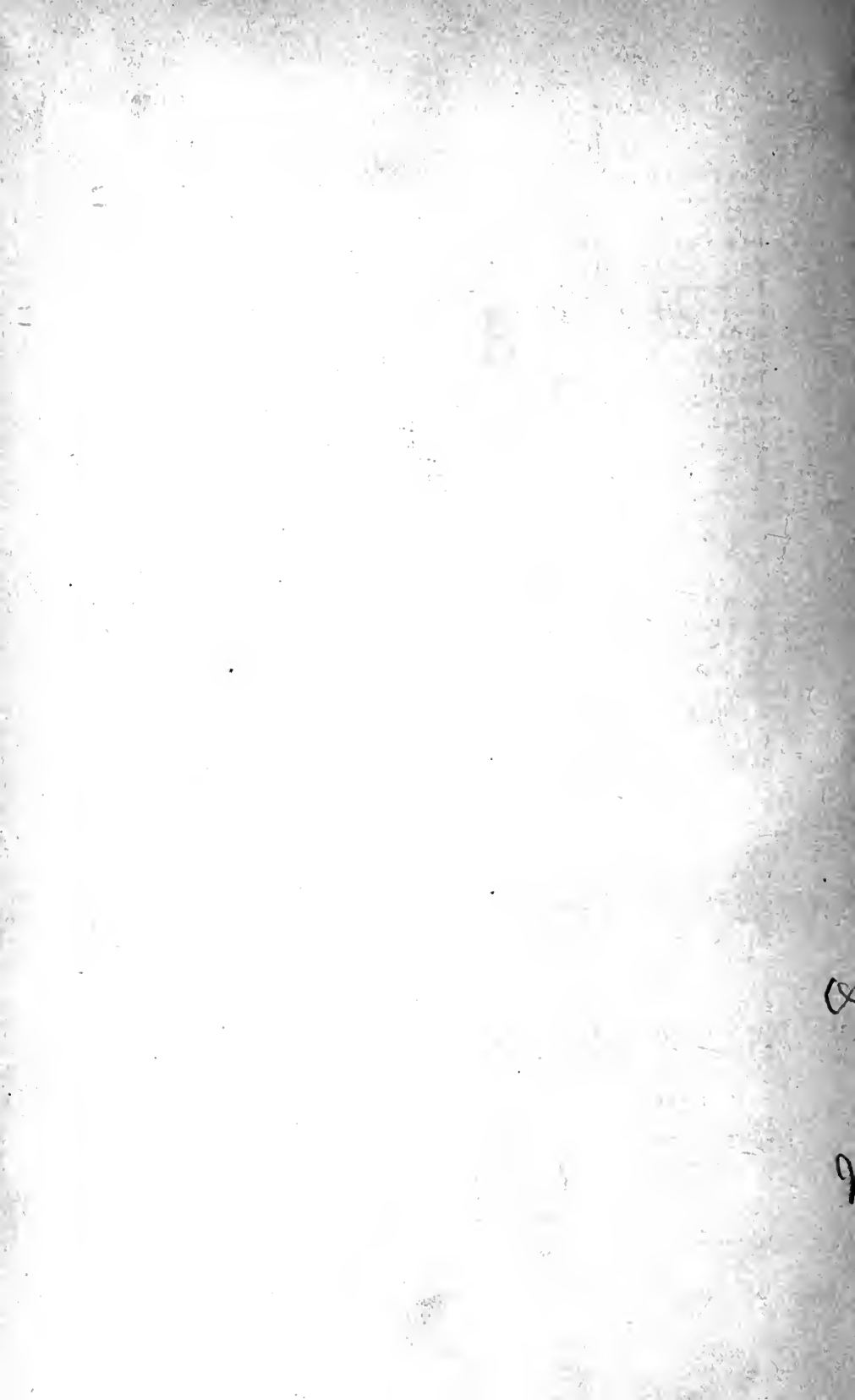
- Value, Definition and Analysis of the
 Consciousness of, (s) 460; Of Human
 Reason, The, (s) 561.
 Vedanta System of Philosophy, An Out-
 line of the, (b) 340.
 Vienna University, Scientific Supplement
 to the Annual Report of the Philo-
 sophical Society of the, (1905), (b)
 554, (1906), (b) 659.

W

- Whitney, G. W. T., (n) 573.
 Will, On the Activity of The, and
 Thought, (b) 294; The Concept of
 the, (s) 667; Dr. Ewer on the Free-
 dom of the, (d) 616.
 Witmer, Lightner, (n) 354.
 Wright, Henry W., (n) 465.

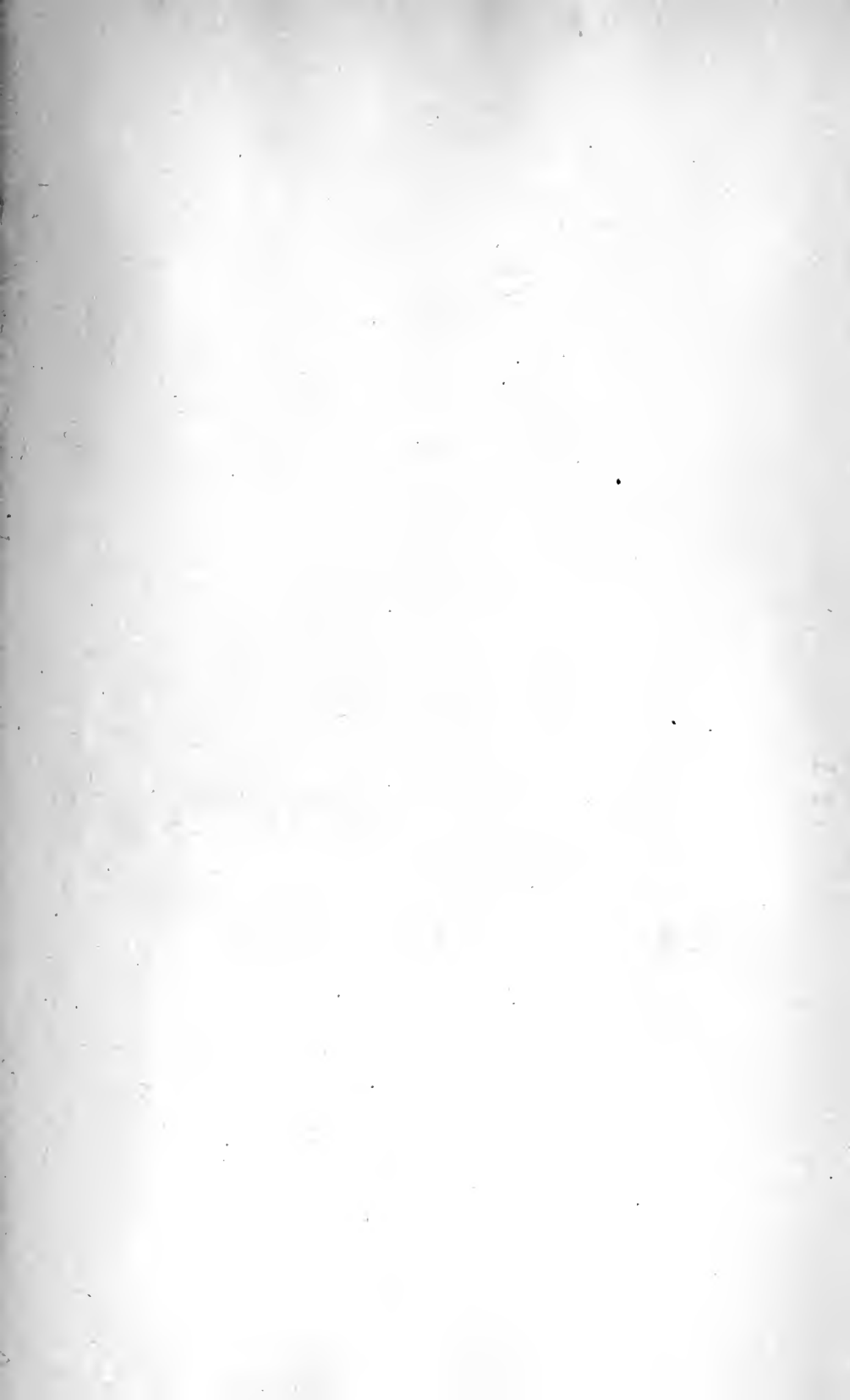
Z

- Zeller, Eduard, (n) 354.
 Zeno's Proofs against Motion, Kant's
 Antinomies and, (s) 349.











B
1
P5
v.16

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