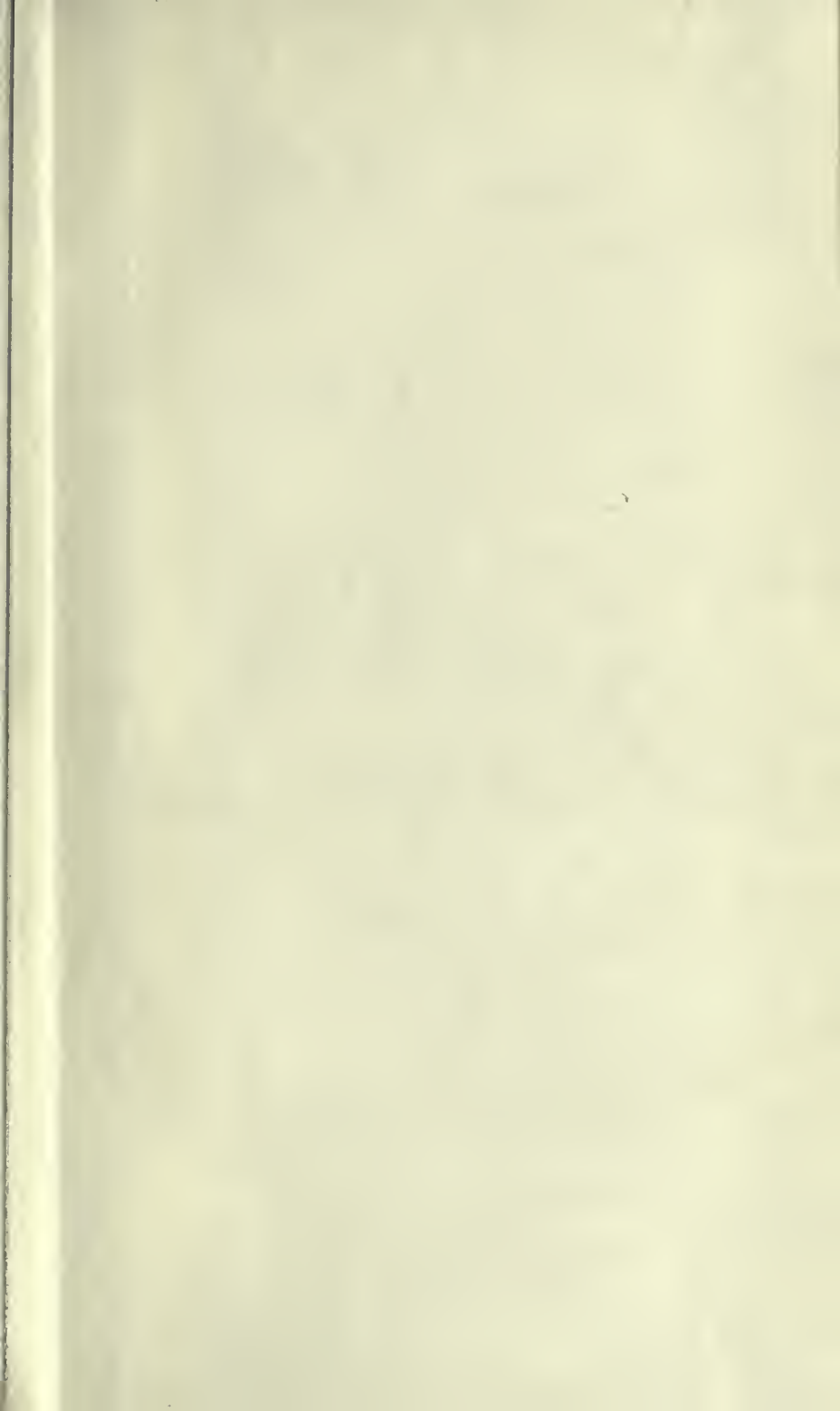
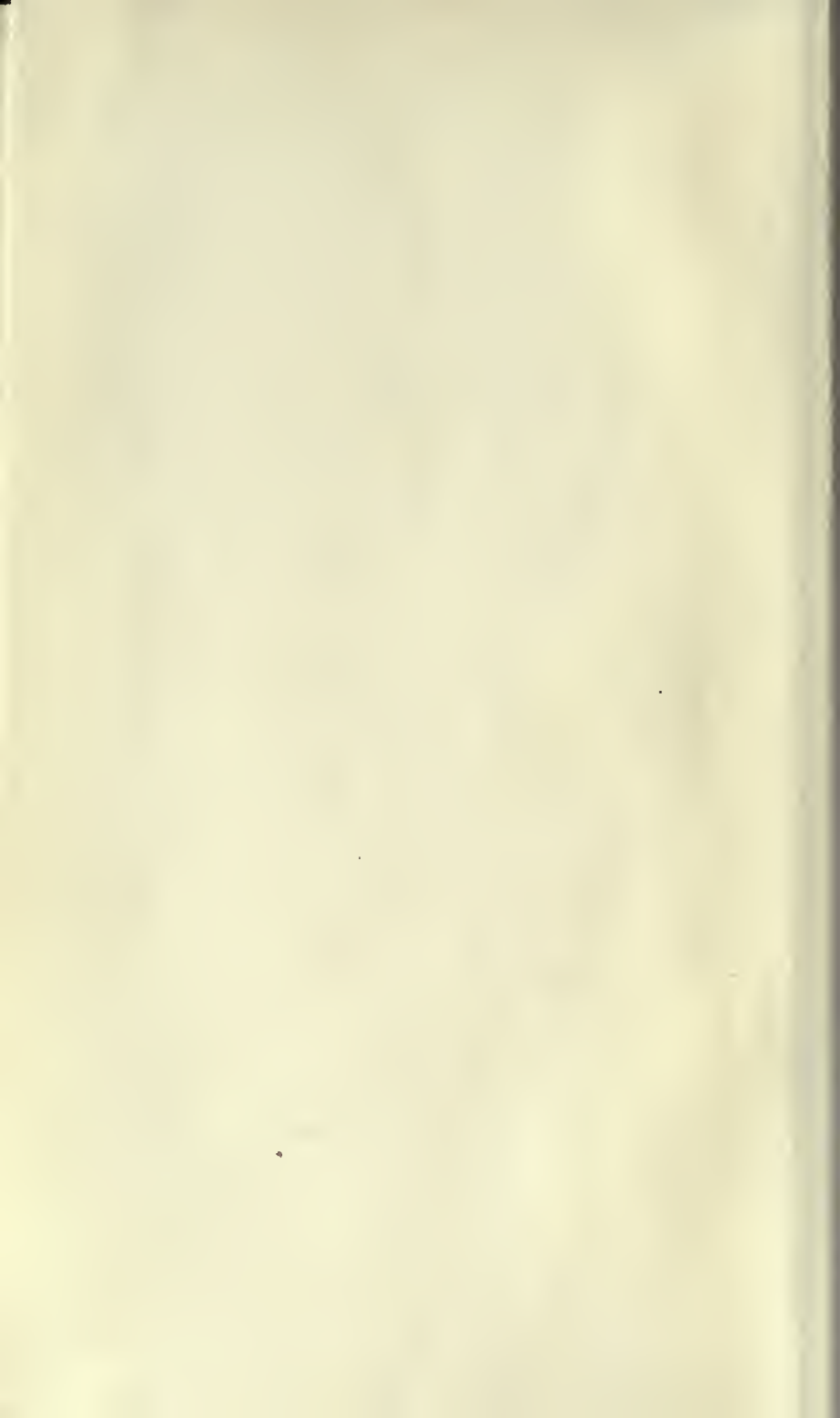




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A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

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OF

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EDITED BY

PROFESSOR G. F. STOUT,

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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—THE RISE AND FALL OF THE PLATONIC
KALLIPOLIS.

BY F. V. MERRIMAN.

THE object of the Republic is to define the nature of Justice. As a preliminary to this we are given an inquiry into the nature of Justice "writ large in the State". The method of this inquiry is to construct an ideal constitution enshrining Justice, and several other constitutions diverging from it in varying degrees. From the City of Pigs to Tyranny there are seven of these constitutions in all; they are however not treated as existing simultaneously in seven different cities, but as successive phases in the history of a single city. This latter scheme of presentation has an obvious literary advantage. It sustains the reader's interest by providing him with a kind of plot or dramatic sequence, which also serves as a link between the numerous topics over which the discussion ranges. Narrative is made the vehicle of dialectic. But this can hardly have been the author's sole reason for treating the various constitutions as stages in a process of organic change. The purpose of this essay is to examine this process of organic change, as having an importance of its own; to inquire why the described changes take place as they do; and to discover if possible the elements of stability and instability which are present in each stage of the process.

From the ethical point of view the process obviously divides itself into two general stages, the rise and the decline; and equally obviously different methods of exposition are employed in describing these different stages.

The decline is illustrated with detailed explanations, *i.e.*, with continual references to the three parts of the soul, the

four cardinal virtues, and the analogy between the individual and the State.

The rise is described without this wealth of explanation. Details are determined by a theory of education, and alterations are made at the suggestion of the speakers.

There is a literary reason for this difference of method. The description of the Ideal State naturally precedes the analysis of its decline: that is to say, in examining the decline, we have previously considered, and therefore have in mind, the ideal state from which the deteriorating constitutions diverge. For literary reasons also, due to the dialogue form, the full exposition of the tripartite psychology, the cardinal virtues, and the analogy between the individual and the State, is only given in connexion with the ideal city. Therefore these three doctrines cannot be used in the dialogue for the purpose of analysing that part of the process which precedes their exposition (*viz.*, the rise) but they do become available and are employed in examining the decline.

The general result is that the decline seems to proceed with a kind of fatality, controlled by an internal law, against which the best elements in the city struggle in vain; whereas the rise is described as a process of purging, resolved on and carried out by a government in full control of the situation with which it has to deal. This also has a literary justification. Since the Ideal State is admitted to be only an ideal, it is a legitimate artifice to allow its founders more freedom than they would really possess, and to minimise the obstacles that confront them.

For these reasons then, if for no others, the process of perfection seems to be determined teleologically, while efficient causality seems to determine the stages of the decline.

If this difference is merely one of exposition, that is to say of form, it is allowable to attribute it to the requirements of the dialogue style.

If however there is a change not only in the method of exposition but also in the causal determinant of the process described, due weight must be attached to the philosophic import of this fact. It may be implied that the process of attaining perfection is a process of self-determination with reference to an ideal, and cannot take place when each stage is determined by that which precedes it; whereas a process of deterioration cannot be willed, but can only take place in the latter manner. Or it may mean that the rise of nations implies an outburst of vitality sufficient to mould a hostile environment, while a submission to the environment is a sign of weakened vitality, so that the appearance of efficient

causality as a determinant of the process is both a cause and a proof of decadence.

Now an examination of the rise according to the same principles which Plato uses in analysing the decline should help to show how far the differences in the exposition are differences of exposition merely, and how far they affect the subject-matter.

We have seen that the spontaneity of the dialogue form required that the tripartite psychology, the cardinal virtues, and the psycho-political analogy should be obtained by analysing the Ideal State, and that no stress should be laid upon them in the exposition that preceded this point. We shall attempt to estimate the influence of literary form by re-reading these principles into the description of the City of Pigs and the Fevered City, and we shall endeavour to justify this method by observing latent references to some of these doctrines in those passages which precede their positive statement.

II.

THE ANALOGY, THE TRIPLE DIVISION, AND THE CARDINAL VIRTUES.

The Triple Division has two forms, one psychological, a division of the soul into the elements of Reason, Spirit and Appetite, the other political, a distinction between the Governing, Fighting and Trading Classes in a community. That is to say, the doctrine is closely connected with the Analogy between the individual and the State, and it can best be approached from this side.

This analogy may at first sight seem fanciful, but it is indisputably serious. The principle is admitted by Thrasy-machus without opposition in 352 *a*, where Socrates, having shown that even robbers are not unjust towards each other when they belong to the same gang, proceeds: "and in a single person also the presence of injustice will produce all those results which it is its nature to produce," that is to say, internal strife and consequent weakness in his dealings with the outside world.

If the professional eristic lets this argument pass uncontested, we must either suppose that the analogy formed part of the popular ethical theory of the time, and could have been no more questioned than a reference to 'heredity and environment' to-day; or else Thrasy-machus is a very poor dialectician. In proposing to search for Justice written large

in the State Socrates introduces the analogy with more circumstance, as if it required some defence (368 *d, e*). When justice is identified in the city as *οἰκιοπραγία*, the speakers agree that if this definition fails when applied to the individual they will reject it and search for some other definition to be verified in the same way (434 *e*). As it is in fact applied to the individual without difficulty, this caution can only have been inserted to remind the reader that the analogy is the method of inquiry. Finally, in the discovery of Injustice, a tyrant is described, successful and strong, fulfilling the requirements of Thrasymachus; and those who with Thrasymachus incline to regard him as prosperous and happy are asked to examine the misery of the tyrannised city. They are assured that they will find a similar misery in the soul of the tyrant (576 *d*, and 579 *e*). This is a repetition of the argument already used against Thrasymachus in 352 *a*. The analogy appears at all the most important points of the argument. Its importance is incontestable. It remains to examine its nature.

Assuming the triple division to be admitted in psychology, it is plain that reason, spirit, and appetite will have different functions corresponding to their different natures. Now if we abstract the political activities of man, we get governing, fighting and trading as the political expressions of reason, spirit and appetite. One of the objects of political institutions is the economising of individual energy by the division of labour. Therefore in a well-ordered State those in whom reason predominates will govern, those in whom spirit predominates will form the army, and those in whom appetite (to be here taken as 'necessary' appetite) predominates will earn. The best division of labour is therefore obtained when the institutions created by man are a counterpart of his own psychological nature. In this form the analogy is the product of expediency. All that is required is that each man shall have one aptitude sufficiently well marked to assign him unhesitatingly to one of the three classes, and that philosophic spirited and commercially-minded men shall be born in just sufficient quantities to keep each class at the right size relatively to the two others. This is a large demand, and it is significant that the deterioration begins with mismanaged breeding, and with the assigning of children to the wrong classes.

The analogy however is not confined to the constitution in which the three elements are completely differentiated (*viz.* the Kallipolis); the inferior constitutions also have a typical character corresponding to each of them, a timo-

cratic man, a democratic man, etc. Since the Kallipolis is the only constitution under which rulers, soldiers and workers are true to their type, in one sense the ideal magistrate, the ideal soldier and the ideal worker are each of them typical of the Kallipolis. Each of them provides a differentia by which the Kallipolis is distinguishable from other cities. The worker is treated with contempt under Timocracy and is robbed under Oligarchy; he becomes an individualist under Democracy, an anarchist under Tyranny. But the soldier is more typical than the worker, and the ruler than the soldier. In another sense therefore it is the Philosopher King who is typical of the Kallipolis. The inferior constitutions progressively disregard this differentiation of function on which the analogy rests as applied to the Kallipolis. But the analogy is not thereby upset. The timocrats economise energy by neglecting philosophy in the education of their own class, and consequently do not apply philosophic principles in governing the State. The oligarchs, finding military discipline irksome, and, as they think, unnecessary, economise energy by giving up that also, and money-making determines the method of government as it does the life of each member of the governing class. So long as we regard the governor as corresponding with the city, the analogy holds good at each stage of the decline; but if we confine our attention to the workers, we shall find at each stage a correspondence but no necessary similarity between their character and that of the constitution under which they live.

We have next to consider the triple division. At first sight the symmetry of the triple division is destroyed by the subdivision of appetite into necessary or miserly and unnecessary or spendthrift. But on closer examination it will be found that each part of the soul has an inward, self-repressive, steady activity contrasted with an outward, self-expressive, and occasional activity; and in each case the former is laboriously cultivated by education, and the latter so far as possible kept under control.

Under Reason we find contemplation and government, the philosopher out of the cave, and in the cave where he spends himself in the service of others. Spirit covers two kinds of courage, *viz.*, tenacity and enthusiasm, the latter being the raw material, a capacity for rising to the occasion and dealing rapidly with a situation, the former being a capacity for martyrdom, and the result of training. Finally we distinguish acquisitive appetite, with solid comfort as its object, from spendthrift appetite, which implies moments of

self-indulgence alternating with satiety or unsatisfied craving. In each case a process of building-up is contrasted with acts of using-up.

Stress is always laid on the necessity for cultivating the former attitude of mind, partly because it can only be acquired by discipline whereas the opposite tendency is spontaneous, partly because Plato regarded stability of political institutions and of moral character as in themselves morally preferable to their opposites. It must however be observed that in the sphere of reason and spirit the discipline is imposed for the sake of efficient action. The philosopher is trained in contemplation in order that he may govern more competently: the soldier has right opinions instilled into him in order that in moments of stress or panic his energies may be rightly directed. That is to say, the former tendency is from a political point of view ancillary to the latter. The self-repressive discipline is another aspect of that economy of energy which also dictates the necessity for a division of labour. It remains to consider certain passages in the earlier parts of the treatise where the influence of the triple division is present, though for reasons already given it is not explicit.

In 347 *a* the inducements to undertake the task of governing are stated to be money, honour, or the inconvenience of being badly ruled. Money and honour are always treated as the ends pursued by necessary appetite and spirit. In the passage before us we learn that the good man is neither *φιλότιμος* nor *φιλάργυρος*. These words belong to the regular terminology of the triple division (581 *c*, 474 *d* (*sq.*), 435 *e*); and the inference plainly is that the good man, in discarding these lower motives for governing will prove himself *φιλόσοφος*. Socrates in continuing says that in an ideal city men would compete for the privilege of not ruling (347 *a*), which further connects the good man's choice with the element of reason, since this passage plainly foreshadows the unwillingness of the philosopher to descend into the cave.

We have then a reference to the three parts of the soul applied to a problem of government.

The next instance is a reference to the triple division of society into rulers, fighters, and earners. In 407 *b* disease is said to unfit a man *πρὸς οἰκονομίας καὶ πρὸς στρατείας καὶ πρὸς ἐδραίους ἀρχάς*. These were doubtless the ordinary occupations of the Athenian Citizen, and in this passage Plato seems to have contemporary Greece in view rather than any Utopia. In spite of that, these three types of activity correspond remarkably well with the three orders

in the Kallipolis. Fighting and acting as magistrates are evidently the functions of the auxiliaries and rulers, and a reference to 417 *a* (οἰκονόμοι καὶ γεωργοὶ ἀντὶ φυλάκων ἔσονται) proves that οἰκονομία is a typical function of the third class in the city.

Finally in 413 *b* we learn of three influences under which guardians are likely to lose the right opinions acquired through their education. These are κλοπή, βία, and γοητεία, that is to say, intellectual sophistry, pain, and pleasure or fear.

The first of these assails the reason. This is stated in the text. In 440 *c*, the possession of θύμος is described as a capacity for undergoing *pain* for the sake of a belief or an ideal. The second of these corrupting influences therefore assails the spirited element. The third influence operates by an appeal to pleasure; here we are evidently in the region of appetite. This distribution may at first sight appear questionable, since we should expect fear, not pain, to be coupled with courage, and pain, not fear, to be coupled with pleasure. We must however remember that the courage in question is of the passive type, *viz.* tenacity, and that the fear which is coupled with pleasure is, like pleasure, of an entirely selfish type, that is to say, it is fear of bodily pain.

Under the influence of κλοπή the courageous impulse is misdirected. The moment of stress is never actually faced.

In the case of βία, pain operates as an exhausting power. The soldier's strength is worn down, and he gives way instead of remaining firm till death.

With γοητεία the moment of stress is faced, but an access of desire or terror makes him shirk his duty at the last moment. His reason is overpowered by an emotional paroxysm originating in the irrational part of the soul. In his case the brutal element has not been sufficiently lulled by music. The man who is overcome by βία is the "nerveless warrior" who has been weakened by too much music.

In three cases then at least we find the doctrine of the triple division influencing the exposition before it is explicitly discussed, and we may therefore assume it to be in Plato's mind throughout the dialogue.

We may suppose this triple division to be generalised from various kinds of data; from the Spartan constitution, with its Ephors, its military caste, and its helots; from a comparison of the national characteristics of Greeks, Thracians, and Phoenicians; from a consideration of the various occupations of the well-to-do Athenian, *viz.* politics, military training, and farming. The Athenian aimed at versatility

and did not attain efficiency in any of these three directions. The Spartan adopted the principle of the division of labour, distrusted versatility, and lived under a stable political system. The triple division is thus based on a division of labour, and this in turn is imposed by the necessity for economising human energy in order that it may successfully cope with a hostile environment.

It remains to give a brief discussion of the Cardinal Virtues, calling special attention to their bearing upon the stability or instability of the various constitutions which form the rise and the decline.

Wisdom is the direct expression of the thinking element, courage of the spirited element in the soul. The political function of wisdom is to impose the right character on the city by purging it, and to maintain this character when it has been imposed. Courage on its active side has an occasional function only, that of repelling any menace from the human environment. On its passive side it constitutes a firm mass of moral qualities which leavens the whole city, thus enabling a greater complexity of type to be permitted among the workers.

Justice is the virtue of specialised functions pursuing different ends. It is thus centrifugal or individualistic in tendency, and it requires to be balanced by the centripetal influence of temperance, which latter virtue introduces an identical ideal into each of these specialised activities, the ideal of serving the good of the whole. Division of labour can only attain its avowed object if it is combined with a unity of purpose. Temperance is thus the moral aspect of that system of relations between the parts which enables the parts to pursue each its own line of action steadily and uninterruptedly.

To sum up. In searching for possible causes of stability and change, we have been able to distinguish a self-expressive and a self-repressive method of life imposed on the character by different kinds of education ; and, among the cardinal virtues, to distinguish two which form the foundation of political unity, *viz.* wisdom and temperance, and two which, when divorced from wisdom and temperance, have a neutral or contrary influence, *viz.* courage and justice.

III.

THE RISE AND THE DECLINE.

We can now proceed to analyse the various constitutions and to form some fruitful comparisons between them.

The Rudimentary City is founded on division of labour. Division of labour is necessary for two reasons, an internal and an external; (1) different men have different aptitudes, and (2) particular pieces of work belonging to one profession must be done at particular times, and the right man must be ready to do them, that is, he must not be occupied with other duties at the critical moment. We may observe that the existence of the second reason, the external one, makes the objective reality of time and change enter as an essential element into the theory of justice. We may add a third reason, *viz.* the moral advantage of attaining a unified personality by specialising in one direction. Thus the organisation of the external world, the variety of human aptitudes, and the claims of stable character provide an economic, a social and a moral reason for the division of labour.

In these three senses also the city is *ἀναγκαιοτάτη*. Economically, it is occupied in securing the necessities of life, since it has as yet no knowledge of comforts or luxuries; socially, it contains the irreducible minimum of political organisation, *i.e.* an economic bond; and, morally, it is at the level of the 'necessary' appetites.

How far can the cardinal virtues be identified in this city? Wisdom and courage are obviously absent. Adeimantus finds justice in the relation of mutual need which binds the citizens together (372 *a*). This he says under the influence of Glaucon's doctrine of the social compact, according to which justice originates in the need of the weak (359 *a*), but in doing so he disavows the contractual element in Glaucon's theory. At Glaucon's instance the discussion passes on to the fevered city and Adeimantus' identification of justice is not discussed. Adeimantus' observation is thus used by the author to point out in passing an important fact, that of the mutual dependence of the citizens. This virtue is really a rudimentary form of political temperance. The economic environment imposes on the inhabitants the temperance of individuals; they are hardy vegetarians. But they possess this virtue in a rudimentary and negative form; their wants are few not because their appetites are under control, but because no appetites have yet arisen. When appetites do arise, they plunge into self-indulgence and have to learn self-discipline. They then become truly temperate as individuals. The environment also imposes on them a division of labour, and further compels them to rely on each other in order to make this arrangement effective. This division of labour is a rudimentary justice, and this mutual reliance is a rudimentary political temperance.

When Glaucon demands the introduction of luxuries, Socrates shows that this change will involve others, and the description of the fevered city consists in developing this change in the hypothesis. That is to say, the description begins as an exposition of the logical results of a change of hypothesis about an imaginary city, but as it proceeds, the internal logic of the process overpowers the whims of its creators and the fiction becomes a reality. Socrates avails himself of Glaucon's suggestion in order to show that the rudimentary virtues in question are entirely external in origin. If the external check be regarded as removed, the morality of the city breaks down. We may regard the process as natural and not merely logical. Foreign traders arrive with new luxuries, or some of the citizens wander and return with an Odyssey of strange tales.

Their spendthrift appetites are at anyrate aroused, and in order to satisfy them they require a continuous supply of objects which can be rapidly used up and replaced, spices and unguents and fine clothes, etc. The search for these luxuries arouses in them strong piratical and pugnacious tendencies. Luckily these tendencies do not lead to civil strife, for there are no rich men in the city who can be plundered. In this respect the outbreak of spendthrift appetite differs from its reappearance in the change from oligarchy to democracy, as will be noted later. The citizens combine to plunder a rich neighbour, war results, and pugnacity becomes patriotism. The necessity for self-defence compels the city to organise an army with a definite discipline, and to submit to its generals when they impose on it, for military reasons, a more ascetic manner of life. The guardians, like the eye or the ear in the human body, were originally produced with a defensive purpose, but survive to fulfil functions quite different from those for which they were called into being. Finally the purging is carried through for moral reasons consciously approved and the wisdom of the rulers inspires confidence and approval in the ruled. Thus in the rise from the rudimentary city to the Kallipolis, we see political temperance imposed successively by the economic environment, the human (*i.e.* military) environment, and by a conscious moral choice; that is, it is founded on each part of the soul in turn.

We have accounted for all the important elements in the process except the enormous outburst of "spirit" which carries the city through the process at all. There is nothing in the rudimentary city which foreshadows this. We

can merely note the first appearance of spirit as a principle of change when it becomes dominant in a city. Can we find any psychological process in the individual analogous to this? Remembering that Plato was a poet before he became a philosopher, and that the disorderly emotions which he attributes to uncensored poetry are exactly those of the fevered city, let us note an autobiographical confession which describes a similar process taking place in a human being.

Keats in the preface to his *Endymion* speaking of himself says:—

“The imagination of a boy is healthy, and the mature imagination of a man is healthy; but there is a space of life between, in which the soul is in a ferment, the character undecided, the way of life uncertain, the ambition thick sighted”.

We may compare with this the passage at the beginning of the *Republic* (329 c) where Sophocles is quoted as saying that he escaped from the tyranny of his passions like a slave escaping from a mad and cruel master. If the analogy between the individual and the State applies to the fevered city, we may regard it as representing the stage of adolescence. It would be rash to press this comparison.

In the fevered city we see for the first time the appearance of a town life, full of new experiences, and aware of its own richness and colour. Its inhabitants consciously contrast their new life with the rural life which they have deserted, and despise their former condition as a life of pigs.

In working out a new vein of pleasures each citizen obtains a heightened sense of his own individuality. His ideals begin by being egoistic, and become anarchic and anti-social. His career in this direction is arrested by the discovery that some pleasures are economically spendthrift. But among his experiences is one with a contrary tendency; he has the townsman's sense of being a unit in a crowd, of identifying himself with it and of being swayed by its emotions. It is this sense of corporate solidarity which saves him from the egoistic type of ideal into which he was slipping. This is the important difference between the fevered city and the democratic city. In the latter case the ideal of solidarity has been played out and proved hollow.

This will become plainer if the rudimentary city be compared with oligarchy. They have many points in common. The oligarchy too is based on the necessary desires. It is concerned with the gaining of a livelihood, and economic discussions are again to the fore in the description of it. There is a reappearance of beggars living the life of pigs.

It is unwarlike, its stability is overthrown by the stress of war, and it ends with a breakdown of temperance. The differences are equally important. In the city of pigs, poverty was imposed upon all by the environment. It therefore caused no resentment, and enforced personal temperance on the citizens. Under oligarchic rule, poverty is caused by the deliberate policy of the rich. The poor imitate their vices, and resent the spectacle of their wealth. The remedy as before consists in the robbery of the rich by the poor, but in this case the treasure to be plundered is in the State. Once more there is foreign war, but this time foreigners intervene as allies of one party against the other (556 e).

The equilibrium of the Kallipolis is upset by the erratic action of practical reason, which belongs to the unstable or spendthrift side of the division which we have established in the activities of the soul. The result is produced by the assigning of children to the wrong classes, which argues a consciousness of the difficulty of forcing the various aptitudes of man into the rigid triple division of political classes. In timocracy we find spirit combined with practical reason, in democracy, with spendthrift appetite; in both cases with an unstable element in the triple psychology. In both of them conduct is guided by a desire for popularity, and consists of violent, spasmodic, and unconnected acts. Plato represents spirit as taking its colouring from some other element in the soul which dominates it. In both cases the growing anarchy is checked by a return to some form of political unity, in oligarchy or in tyranny. The complete process from the rudimentary city to tyranny can thus be regarded as a series of alternations between a greater and a lesser degree of political concentration. This tightening and loosening of the political organisation becomes the vehicle of a quite different process, namely a rise and a decline in the moral value of the various constitutions through which the city passes. We have now to examine one of the most interesting changes of all, that from democracy to tyranny.

We have seen the appearance of two hostile parties in the oligarchy, and the reappearance of pugnacity, which now serves not as a unifying agent but as a dissolvent, widening the breach between them. Under democracy dissolution proceeds apace, and the spirit of pugnacity adopts as its vehicle a number of competing political groups in a condition of internecine warfare. Once more there supervenes a process of concentration, but in this case it is one which further intensifies the evil. One of these groups overpowers the others and imposes its will on them. Unity is obtained not

by organic evolution but by natural selection among several newly formed organisms all of them parasitic. The spendthrift appetites of the tyrant awaken in him spirit and practical reason, which he employs against the other groups in the city. The whole city is his sphere of robbery. By limiting his field of organisation to a smaller scale he produces a systematic government and arrests the political dissolution. This process is described as one of purging, a parody of the purging carried out by the guardians. He also has his trained auxiliaries, and purges the city of wisdom, courage and temperance, for he represents a part which can only survive by preying on the whole and keeping it weak. The guardians and the tyrant are alike in this; both of them arrest a process of disruption by disciplining the weak individualists, who according to Glaucon combine to check the strong. The constitution of the Kallipolis was just, because it enabled each citizen to pursue his true aptitude; and he only discovered the element of constraint when he wished to go wrong. The process of deterioration consists in a progressive disregard for various types of aptitude until those who find their legitimate ambitions thwarted outnumber those who find in the constitution a sufficient expression of their needs. In terms of the cardinal virtues this process can be described thus: timocracy sacrifices wisdom; oligarchy, courage; democracy, temperance. But under Tyranny the city does not merely sacrifice justice and collapse, it organises injustice and survives. In tyranny we find a definite political reconstruction aiming not at expressing the wishes of the greatest number but at thwarting them. It is an honest analysis of Thrasymachus's ideal; for the tyranny is strong, courageous, efficient, and parasitic.

According to his view, government consists in making people do what they do not want to do, and there are two ways of attaining this object, cunning and force. Justice is the element of cunning. The government, according to Thrasymachus, makes use of the idealistic element in its subjects; it preaches obedience as a virtue, and allows the virtuous to imagine they are attaining a moral ideal by obeying. Those who are too intelligent to be virtuous are suppressed by force. The enemies of the government will be of two kinds, those who attack it and those who imitate it. The necessity for suppressing the tyrannicide agitator is evident. The latter danger introduces a most important element in Thrasymachus's theory, the distinction between the wholesale and the petty robber. The small clumsy robber attacks public security directly like a footpad. He

has to be punished in the interests of social order, and his clumsiness makes him an easy victim. But as the social order merely exists for the sake of the wholesale robbers, he is committing the additional offence of poaching on their preserves. The wholesale robber may be unjust by a moral standard, but is just, or, what is more important to Thrasymachus, successful and happy, by the political standards of the city-state, because he has got behind the political machinery which punishes injustice and continues to punish minor robbery. Political parasitism is not so visibly harmful as burglary, and goes unchecked because the operation to extract it is difficult and perilous. The prevention of "graft" is a permanent problem of government. We see an analogous but slightly different process referred to in H. G. Wells's *Tono-Bungay*, chap. iii., § 1: "When my uncle talked of cornering quinine, I had a clear impression that any one who contrived to do that would certainly go to jail. Now I know that any one who could really bring it off would be much more likely to go to the House of Lords." This indictment, whether true or false, is in the manner of Thrasymachus.

Tyranny is safe so long as its docile and virtuous subjects do not begin to see through the maxims they have learned. After that point the government has to depend on force. Similarly the Kallipolis breaks down when men begin to doubt the wisdom of the philosopher. The tyrant fails through being too selfish, the philosopher-king through being too other-worldly.

We are now in a position to examine whether the moral corruption of the tyrannical government really weakens its political efficiency, which Thrasymachus denies, and whether Socrates has convincingly met Thrasymachus's denial.

If the tyrannised city embraced the whole universe, and if the tyrant were omnipotent, his egoistic legislation would be the norm of justice. But there is always the possibility of rebellion with or without external help. Taking Thrasymachus's own instance, the fattening of sheep would be dangerous if the sheep could combine against the shepherd. Moreover, tyranny being founded on spendthrift appetite, the tyrant robs and ill treats even the submissive; submission therefore is not the law of survival, for the prosperous are lopped off. The tyrant must allow sufficient vitality to other groups to draw his sustenance from them, but not enough to let them overpower himself. Their activities must therefore be alternately encouraged and thwarted. He cannot like Caligula wish that the Roman people had only one neck. If he maintained the efficiency of his government but sup-

pressed his spendthrift appetites and otherwise left his subjects alone, he would approximate to the philosopher-king, for he would be so far governing in their interests. The whole object of the description of the purging carried out by the tyrant is surely to show that the difference between his government and that of the philosopher-king is not so much in political structure as in moral nature, that it is one of ends rather than of means. The political structure of the two governments is so similar that Euripides praised tyranny, and Plato himself tried to build the one upon the other in Sicily.

The conclusion to be drawn is that evil does obtain a certain measure of success in this life, provided it adopts certain principles of organisation that are in themselves neither good nor evil, but merely efficient. This is enforced by a consideration of the proof of the immortality of the soul (608 e). It is there urged that physical death, or the separation of soul and body, is due to bodily causes only and is a matter of bodily structure. Similarly the dissolution of political society is due to political causes to be found in the structure of the body politic. As the moral vice which most injures the body is intemperance, so political society comes nearest to dissolution in democracy where political intemperance is rampant.

Why then does Plato not face the question whether intemperance and not injustice is a spiritual dissolvent affecting the permanence of the soul? He has forestalled this objection by showing that as the tyrant organises a definitely evil political system out of the materials provided by political intemperance, so in his own soul a brutal element makes itself a centre of organisation for the intemperate desires which exist in it. In any case injustice does not receive its full punishment in this life, and it is only in the life to come that moral evil and moral good can be separated from the process of growth and decay (that is, from an organic system), and judged solely and simply on their merits in the way that Glaucon and Adeimantus desire.

II.—MR. RUSSELL AND SOME RECENT CRITICISMS OF HIS VIEWS.

BY OLIVER STRACHEY.

IT is a testimony to the increasing prominence which Mr. Russell's philosophical views are gaining that no fewer than three articles in the April number of *MIND* (N.S., No. 90) should have been criticisms of his doctrines. A number of different points were touched on, and Miss Stawell's and Mr. Turner's objections very largely overlap. So that perhaps I may be allowed to deal with their more important remarks together, point by point; and to add an answer to Mr. C. I. Lewis's criticism of Mr. Russell's notion of implication.

I.—KNOWLEDGE BY ACQUAINTANCE AND BY DESCRIPTION.

It is not difficult to see that there are two senses in which we may use the word 'know'. Firstly when we say that we know a fact or a truth, a judgment or a belief is always involved. In these cases we may always express our knowledge by the phrase 'know that . . .'. Knowledge in this sense is always *knowledge that* something or other is in some relation to something, or has some property.

Secondly when we say we know something other than a fact or a truth, we may mean that we are directly acquainted with it. Thus to know one's own sense-data or emotions is an immediate act of the mind, involving no judgment or belief. In this sense knowledge is, so far as I can see, equivalent to what Mr. Bradley calls 'feeling'; and can never be expressed by the phrase 'know that . . .'.

It is in these two senses only that Mr. Russell uses the word 'know'. When he says 'I know something,' or 'I have knowledge of something,' then if the 'something' is a fact or a truth, he means knowledge in the first sense; he knows *that* something is true. If the 'something' is not a fact or a truth,¹ then Mr. Russell always means that the

¹ Mr. Russell does hold (p. 213, *Problems of Philosophy*) that knowledge by acquaintance is itself in some cases knowledge of a fact, though no judgment is involved. This however need not be considered at this point.

'something' he 'knows' or 'has knowledge of' is something with which he has immediate acquaintance, of the kind we all have of our own feelings and sense-data.

But in ordinary conversation we often speak of 'knowing' things that are neither facts nor truths, and with which we are not immediately acquainted. Thus we may say we 'know' our neighbour's feelings, or 'have knowledge of' a real physical table. Mr. Russell never uses the words 'know' or 'have knowledge of' in such cases, without qualification; he holds that all such knowledge is derivative, and amounts only to a knowledge of truths *about* the object in question. Thus we know a lot of facts about the physical table and our neighbour's feelings, but we do not know them. Mr. Russell is very careful to avoid this use of the word knowledge, and in such cases always says that he 'has knowledge about' his neighbour's feelings, or 'knows facts *about*' the table. He calls this also 'knowledge by description,' and might say that he knows the table by description.

Thus when Mr. Russell, in speaking of things that are not facts or truths, uses such phrases as 'to know,' 'to have knowledge of,' 'to be acquainted with,' he is always referring to immediate knowledge by acquaintance; when he says 'to know about,' 'to know some fact about,' 'to know by description,' he is always referring to knowledge of truths. Similarly when he says 'to think of' he implies immediate acquaintance; in other cases he says 'to think about'. It is important to bear this well in mind in reading Mr. Russell; Miss Stawell for instance has in several cases misunderstood him from a failure to realise this distinction. In what follows I shall use Mr. Russell's terminology.

Both Miss Stawell and Mr. Turner find difficulties in a principle which Mr. Russell lays down as fundamental, *viz.*: "Every proposition which we can understand is composed wholly of constituents with which we are acquainted". Now when I make a judgment, my mind is in a certain relation to a proposition, and Mr. Russell holds that I cannot make the judgment unless I understand the proposition. A proposition consists of certain terms and at least one relation; it is usually expressed by a form of words which *mean* the proposition, but of course are not themselves constituents of it. When Mr. Russell speaks of 'understanding' a proposition, he merely means, I take it, understanding this form which expresses the proposition, *knowing* in fact what the words mean.

No one knows better than a philosopher that the same words may be understood differently by different people; and in this

case, since the proposition is the meaning of the words, and since different meanings are conveyed to different people, these people are in reality judging different propositions, though these different propositions are expressed in the same form of words. It is therefore not always so easy as Mr. Turner seems to imagine, to determine the constituents of a proposition, when we are only given the words which express it. For if a word may be allowed to have different meanings for different people, then any form of words which expresses a proposition may really express several, each of which will have a different set of constituents. If on the other hand we take it that each word is to mean only one thing, then only one proposition will be expressed; but no one will be able to judge it who does not understand it in that definite sense, *i.e.* who does not know what the words mean. This knowledge must be acquaintance.

A simple example may make this clearer. Suppose that yesterday I heard a beautiful tune. If I now judge that it was beautiful, there are two possible cases. Firstly I may remember the sounds. In this case my judgment will include as a constituent the very sense-data in question; since I remember them, and thus am still acquainted with them, they will be clearly before my mind, and when I make the judgment the judging relation will hold between me and the very sense-data I heard. The judgment will be a relation between myself on the one hand, and on the other the particular remembered sounds, the universal 'beautiful,' and the relation 'was'. Here then the sense-datum is a constituent of the proposition.

But secondly, suppose I have forgotten the tune; it is not difficult to see, I think, by introspection, that in judging that it was beautiful my mind will now have before it (in the judging relation) a very different object from the remembered sense-datum of the previous case. The tune has simply gone from before my mind, and I can have no immediate relation of judgment with it any more than of perception. When I judge that it was beautiful, the 'it' is simply (in so far as it is a constituent of my judgment) a collection of universals (the concepts 'tune' and 'hearing') related in a definite way to the particulars 'me' and 'yesterday'. In these two cases then, we have two quite different propositions, in one of which the actual sense-datum is a constituent, while in the other is only a description of it. Both propositions can only be expressed in the one way, *viz.*: "The tune I heard yesterday was beautiful"; and both of them are *about* the same thing, namely the sense-data in question.

Mr. Russell holds that in any proposition about particulars that we can understand, if we are acquainted with the particular it may be a constituent of the proposition; if we remember the tune we may judge *itself* to be beautiful. But if we are *not* acquainted with the particular, we shall not understand (*i.e.* know the meaning of) any word which means it, and the particular can not be a constituent of the proposition; in this case there will be terms which *describe* the particular, and *they* will be the constituents of the proposition, and not the particular itself.

If then we consider the form of words, "Bismarck was an astute diplomatist," we must take our choice; either the word 'Bismarck' means the particular Bismarck and him only; in which case the words will certainly express a proposition, but one which no one but Bismarck himself can understand. Or else the word 'Bismarck' may have other meanings, besides the particular man; in which case 'the proposition' expressed by the words becomes many different propositions, according as we think of 'the first chancellor of the German Empire,' 'the chief adviser of the first German Emperor,' etc. But all of them give us knowledge *about* the same thing, *viz.*, the real Bismarck.

Miss Stawell is disinclined to accept this principle on the grounds that if in such a case the real Bismarck is not before our minds when we judge, our mental 'hold' of the universe is depreciated. But, after all, Mr. Russell's principle is only a precise statement of what most people would probably readily admit in the form that all our knowledge about existents must be founded in some sense on experience; and surely we have as good reason to congratulate ourselves on the vast field of our possible knowledge of truths, as to repine at the inevitable limits of our own immediate experience. A man born blind can clearly never have the same 'hold' on the visible world as the rest of us have; for he does not know what seeing really means, it being a thing he only knows by description. This is deplorable, but must be accepted; what is more remarkable is that he should, in spite of his affliction, be able to know so much about sight and visual sense-data.

Mr. Turner's proof that Mr. Russell cannot understand his own propositions is an extremely curious piece of argument. Mr. Russell's proposition discussed is the following: "A circular coin has a real shape different from its apparent shape". Mr. Turner first assumes that some one particular physical coin is a constituent of this proposition, and then points out that 'the coin' cannot be known to Mr. Russell

by acquaintance as it is a physical object like a table. If Mr. Turner could really produce physical coins from so unlikely a hat as this proposition, he would be fortunate indeed; but I fear that all except the conjurer himself saw it drop from his shirt-sleeves. The proposition of course is not even *about* any particular coin; it asserts a relation between the concept 'circular coin' and certain kinds of shapes (which are also concepts). And these concepts are the constituents of the proposition.

II.—PARTICULARS AND UNIVERSALS.

The distinction between these is easy enough. Particulars exist in time, and are objects that can only be *terms* in a proposition. Universals have a timeless being, and can occur in propositions either as predicates or as relations between terms.

It so happens that in each one's experience particulars are private to himself.¹ Thus to take the case of sense-data: If I look at a white patch for any length of time, there will be a continuous succession of sense-data (white patches), all very much alike, perhaps even exactly alike, but all different, numerically at least. If I had no memory, each of these sense-data would be absolutely private and entirely cut off from every other; but by means of memory I can remember and compare my own successive sense-data, and so in a degree break down their privacy. But so far as other people go, my sense-data obviously remain, as a class, completely private; no one else can know them at first hand, or compare them with his own. This is what Mr. Russell means by the 'privacy' of sense-data; and a similar privacy obtains in the case of our emotions and other states of mind.

This privacy does not characterise 'universals,' of which it is a distinctive mark that several people can think of (*i.e.* be acquainted with) the same universal. Mr. Russell I think, by a slip, implies² that it is also true that no one person can think of one particular twice; and this has caused a difficulty for Miss Stawell. She claims that she can think twice of the particular moment of her waking on 4th June, 1909, and quite rightly; so long as she remembers that moment, she can certainly think of it. It is of vital importance that memory should give us knowledge by acquaintance, for if

¹ All particulars are not of course private. Unperceived particulars, being known by no one, are private to no one.

² *Problems of Philosophy*, p. 155.

it did not the whole fabric of our knowledge would crumble away. But when Miss Stawell goes on to claim that other people can also think of that particular moment, she is, I conceive, confusing *thinking of* with *thinking about*, two notions which Mr. Russell distinguishes, as I have shown in the previous section. Any one may think *about* Miss Stawell's private experiences, but no other person can think *of* them, as no one else can be acquainted with them.

Another difficulty, felt by both Miss Stawell and Mr. Turner, is how to reconcile the privacy of sense-data with Mr. Russell's account of how we come by our knowledge of some universals. "By seeing many white patches," says Mr. Russell, "we learn to abstract the whiteness they all have in common," and so acquire knowledge of the universal 'whiteness'. But the difficulty is now raised that this process can give us no knowledge of universals outside our own private experience; whereas it is the essential feature of a universal that we have a *common* knowledge of it.

"If," says Mr. Turner, "the existence of the white patch as a sense-datum is determined to be within my private experience because it is conditional on the activity of [my?] sense organs, the only difference between the white patch as a sense-datum, and the whiteness as a universal, is that the latter is conditioned, in addition to the action of [my?] sense organs, by the activity of [my?] higher cerebral centres, on which the process of abstraction depends."

But Mr. Russell nowhere contends that the *existence*¹ of whiteness as a universal depends on any process of abstraction at all, nor can this be inferred from his view that our *knowledge* of it does so arise. There are certainly large numbers of universals that no one has ever been acquainted with; and whiteness undoubtedly *existed*² as a universal long before I acquired my *knowledge* of it by finding it to be a property common to several particular and private sense-data. The matter will become clearer, perhaps, if we consider the universal 'visibility' instead of 'whiteness'. Among my various sense-data I can distinguish a number that are visual; among all of these I discover one common property—visibility. This one object, appearing identically at many different times and places, whenever I see anything, is a universal, though so far we have not got beyond my own knowledge of it. But it is clear that if another person has visual sense-data which have the same common property as mine, then he also will know the universal 'visibility,' and

¹ Or 'being'.

² Or 'had being'.

we shall have a common acquaintance with one universal. Whether any one else actually *has* such visual sense-data, I cannot of course decide by internal inspection; it depends on whether any one else can see, and this question must be decided on other grounds. This seems to dispose of Mr. Turner's argument that "Mr. Russell's insistence on the restriction of sense-data to private experience will not harmonise with his belief in the common knowledge of universals". For it is only our own knowledge of such universals as 'whiteness' that Mr. Russell holds us to derive from our private sense-data, not our belief in other people's knowledge of them; far less does he hold that the *existence* of such universals depends on our sense-data.

But I think that a misconception often arises from the use of such expressions as 'abstraction' and 'common property'; and possibly Mr. Turner's objection may be partly founded on mistaking Mr. Russell's meaning in the use of these phrases. When we say that 'whiteness' is a common property of particular white patches, there is a tendency to suppose that somehow 'whiteness' is a *constituent* of all these particular patches, or is *in* them in some sense; and when we say we get to know whiteness by abstraction from particular white patches, we might similarly be supposed to mean that we mentally 'abstract' the white constituent from each of them. But this would be an entirely wrong notion; for we may presume the particular white patch to have *no* constituents, but to be a perfectly simple and single sense-datum, such that no amount of mere analysis of it could give us any knowledge of any of its properties.¹ When Mr. Russell says that a thing has a property, he means simply that something is true of it. If anything can be truly said about A, then A has a property; and if the same thing can be truly said about B, then A and B have a common property. Thus I am in this room, and so have a property; and as the chair in which I am sitting is also in the same room, the chair and I have a common property, the property, namely, of being in this room. But this is not to say that the chair and myself have a common constituent, nor that 'being in this room' is a part either of me or of the chair. The fact that we are either of us in the room could be arrived at by analysis of 'the room and its contents,' but not by analysis of either me or the chair.

¹ Whether any particular sense-datum is actually thus simple and single does not affect this argument, which is that to have a property does not imply complexity. This externality of relations is of course fundamental in Mr. Russell's school of thought.

Similarly the property of 'whiteness' is entirely external to the particular white patches Mr. Russell is talking of; so that it may appear misleading to speak of arriving at our knowledge of the universal 'whiteness' by abstraction from particular white patches, seeing that there is no 'whiteness' in the particular patches to be abstracted from them. And I do not think the word 'abstraction' a very suitable one for the kind of process Mr. Russell has in mind, which is something like this: we see a number of patches, and become aware that they are all similar in a certain respect. Thereupon we classify all patches which are similar in this respect as 'white' patches; and the recognition of the respect in which they are all similar is the recognition of the universal 'whiteness'. When we see that all the patches are similar in *one* respect, we are seeing that they have a common property, and this property is the universal 'whiteness'. Since then 'whiteness' is entirely external to the particular white patch, we can see that the privacy of the particular patch is not at all inconsistent with the publicity of the universal; although our *knowledge* of the universal may have arisen through our knowledge of the particulars.

The example chosen by Mr. Russell seems to have a special difficulty for Miss Stawell, who does not see "how I can be certain that my whiteness even resembles another's whiteness"; and certainly it seems at first easier to suppose that other people do not have a colour sense like mine than that they do not see at all; which is what makes me prefer 'visibility' to 'whiteness' as an example. Nevertheless, the arguments in favour of a common range of colours would seem to be of the same nature and force as those which lead us to believe that other people see, and to reject solipsism.

III.—PRIVATE AND PUBLIC SPACE.

In *The Problems of Philosophy* Mr. Russell gives us the bare outline,—hardly more than a few hints,—of a new theory as to what the space of physics must be as compared with the private spaces which each of us knows through his senses. Different senses, he holds, give us different spaces; and, in addition to this, the spaces which each person knows through his own senses, are private to himself, and different from the spaces known to any one else. If then there is a public space, in which the objects of physics exist, it must be different from any of these private spaces, and yet must in some ways correspond with them. Those who wish to know more of this very interesting and difficult theory should read Mr.

Russell's recent book, "Our Knowledge of the External World."

Meanwhile I must deal with Mr. Turner's somewhat summary demonstration that Mr. Russell has once more contradicted himself. Mr. Russell says: "We can know the relations required to preserve the correspondence [of physical objects] with sense-data," but again, "we cannot have immediate acquaintance with physical distances". On this Mr. Turner observes: "But as James pointed out long ago, the relations between spaces are themselves spaces; hence the position becomes that while we cannot know physical spaces if they be themselves terms, we can know them if they be (as they must be) relations between physical spaces as terms". I am not sure that I can grasp Mr. Turner's argument, which seems to me rather loosely stated. What does he mean, for instance, by the word 'spaces'? There is only one physical space, and I think he must mean 'parts of space'. If so, it is not true that the relations between different parts of a space are themselves parts of that space (even if James thought so), though it may be admitted that such relations are spatial, and peculiar to that space. If this is what Mr. Turner means, his argument becomes the following: the relations between parts of a space are peculiar to that space; hence if we cannot know the parts of physical space we cannot know the relations which hold between them; for such relations must be just as peculiar to physical space, and so as unknowable, as the terms they relate. This argument would, I think, be quite sound if the relations which Mr. Russell says we can know are the relations between parts of physical space;¹ but I do not think this is his meaning. I think that Mr. Russell simply means that we can know the relations between physical space and private spaces that must hold if there is to be the necessary correspondence between the objects of physics and sense-data. And in that case Mr. Turner's argument falls to the ground, unless we are to take his words literally as meaning that the relations between *different* spaces are themselves spaces, an assertion that would look very like nonsense.

IV.—A PRIORI KNOWLEDGE.

Miss Stawell's chief objection to Mr. Russell's theory of 'a priori' truths, is to his contention that knowledge of such

¹ In the revised edition of the *Problems* the passage has been altered to read: "We can know the properties of the relations required, etc."—an alteration which would meet this objection.

truths can, by themselves, give us no knowledge about particular existents. Mr. Russell states that the proposition 'two and two make four' does not itself assert or imply that there are any particular couples, and so fails to make any statements whatever about any actual particular couple. Miss Stawell urges that although no categorical statement is implied, yet a hypothetical one is.

Now 'two and two make four' does seem to imply a sort of hypothetical proposition like this: 'If a and b are a couple, and c and d are a couple not overlapping with a and b , then a and b and c and d are four'; but this is not a real proposition, for a , b , c and d are ambiguous in the sense that none of these letters stand for any particular thing at all; they stand for variables. The statement becomes a proposition if a , b , c and d are *apparent* variables, *i.e.* if we assert the statement for *all possible values* of a and b and c and d ; but then no particulars enter into the proposition, and its truth is independent of the question whether there actually are four distinct particulars in the world or not. We shall thus have got no nearer to a statement about any particular than in our original proposition of 'two and two make four'. If on the other hand we make our hypothetical assertion about *any assigned value* of a , b , c and d , then these letters stand for real variables and the statement is not really a proposition at all. If we choose to use the symbols Brown and Jones instead of the symbols a and b , we shall get what appears to be a proposition: 'If Brown and Jones are a couple, and Smith and Robinson are a couple, then Brown and Jones and Smith and Robinson are four'. But in that case the word 'Brown,' like the letter a , does not stand for the particular man Brown, but for anything in the world and for nothing in particular. And in fact, as I said, this is not a real proposition; to turn it into one, some definite things must be put in place of the variables a , b , c and d ; and according to what values we give to these letters we shall get different propositions. This process will be the application of our 'a priori' knowledge to a particular case. Now before we can replace a or b by any particular existent, we must clearly either know that existent, or at the very least we must know that it *does* exist and be able to describe it. So that before we arrive at a real proposition about the particular men, Brown and his friends, we require besides the 'a priori' knowledge that two and two make four, the knowledge by experience that these people exist. Thus no application of 'a priori' knowledge to particular existents can be made

without the assistance of some knowledge that is *not* 'a priori'.

Mr. Turner's version of Mr. Russell's theory is that "*a priori* knowledge is only valid (as *a priori*) in cases where we can experience the terms involved"; and he asks what, in that case, is the value of *a priori* knowledge at all. Considering the number of pages Mr. Russell has devoted to proving that 'a priori' knowledge is *never* concerned with things that we can experience, Mr. Turner's conclusion is surprising, but needs no further comment.

V.—MR. C. I. LEWIS'S CALCULUS OF STRICT IMPLICATION.

Mr. Lewis says that the existence in our world of *material implication*, as used by Mr. Russell, may be doubted. Now according to Mr. Russell '*p* implies *q*' when 'either *p* is false or *q* is true,' *p* and *q* of course being propositions. But if it be admitted that there are true and false propositions in our world, it is surely obvious that another couple may be found such that 'either *a* is false or *b* is true,' and that there must be a relation holding between *a* and *b*, which also holds between *p* and *q*, but which does not hold between any two propositions *x* and *y* of which it is not true that 'either *x* is false or *y* is true'. This is material implication, and whether it is of any use or not, it certainly is to be found in our world.

But apart from this point, Mr. Lewis dislikes material implication, chiefly because it does not admit of a distinction between the true and the necessary, or between the false and the meaningless. Thus we could say truly: "Either *Cæsar never died* is false, or *the moon is made of green cheese* is true". We could say this truly because *Cæsar* did die; but it does not seem to warrant the statement that *Cæsar never died* implies that *the moon is made of green cheese*.

To remedy this Mr. Lewis proposes to use a different relation, which he calls 'strict' as opposed to 'material' implication. According to this suggestion, *p* implies *q* (strictly) if 'either *p* is false or *q* is true' *intensionally*, as distinct from Mr. Russell's mere disjunction. When Mr. Lewis tries to explain more definitely what this intensional disjunction means, I find it rather hard to follow him; but it is clear it has some connexion with necessity. He says: "The intensional 'either *p* or *q*' means 'it is impossible that *p* and *q* should both be false; if either *were* false, the other would necessarily be true; the negation of either (strictly) implies the other". It is evident that Mr. Lewis's implication would not hold between two such true propositions as 'Cæsar died' and 'two and

two make four,' because there is no *necessary* connexion between them. In the only example he gives, he claims that 'To-day is Monday' implies that 'to-morrow is Tuesday,' while 'To-day is Monday' does *not* imply that it is raining to-day, even if it actually is raining.

Now I am with Mr. Lewis up to a certain point. It is clear to me that there *is* a relation holding between certain propositions, which is what we usually mean when we use the word 'imply,' and which is very different from Mr. Russell's material implication; and it is this kind of implication, and not material implication, that is of immediate importance in our every-day thought. Thus we must realise that when I say, "If women had votes in England the world would be better," I am asserting an implication that is not consistent with the statement, "If women had votes in England the world would be worse". Yet since women have *not* got votes in England, and since according to the principles of material implication any false proposition implies all propositions, whether true or false, there is no *material* inconsistency between my opinion and Lord Curzon's.

For our every-day use therefore, and to help us to select a course of action, Mr. Russell's material implication is of no use to us; and it is equally clear that there *is* a relation, of the kind Mr. Lewis speaks of, which we *do* use. But though I agree so far, and believe moreover that Mr. Lewis has before his mind the very same relation that I have before mine, I cannot accept his account of it as being founded on 'necessity'. What exactly is the 'necessity' of a truth? it cannot depend upon our beliefs, because we agree about so very little. I myself do not agree that it is a necessary truth that Tuesday must be the next day after Monday, for in coming home round Cape Horn I have known two consecutive Fridays; and M. Bergson more heroically disputes the law of contradiction. If then the law of contradiction is a 'necessary' truth, it must be so in virtue of some property of its own, and not in virtue of our belief in it. But in that case I can only say that I can see no such property. To me propositions seem to be simply either true or false; and to say that some true propositions are necessarily true, while others only happen to be true, conveys no meaning.

The relation I mean, which I believe to be the same as that which Mr. Lewis calls 'strict implication,' can, I think, be described without reference to anything so doubtful as necessity. Mr. Russell speaks of 'formal implication,' which may be thus explained: there are functions of the form ' ϕx implies ψx ,' where the ' x ' is a variable. An example is " x is

a man implies x is a mortal," where ' x ' may stand for anything at all. In these cases what is asserted is not an implication between particular propositions (for the function does not become a proposition till some definite value is given to ' x ') but an implication as it were between certain forms. In our example there is formal implication between 'is a man' and 'is a mortal'. If any particular value be given to ' x ' (say Socrates), we get a material implication between two propositions. Thus in "Socrates is a man implies Socrates is a mortal" the implication, so far as Mr. Russell is concerned, is material. But it is evident that between two propositions which are thus particular values of a formal implication, there is a relation which holds over and above the mere material implication that holds between *any* two truths. We must admit material implication between 'Socrates is a man' and 'Julius Cæsar died,' but we can see *another* relation *also* between 'Socrates is a man' and 'Socrates is mortal'; and this other relation we always find to hold between any two propositions which are obtained from giving particular values to the variables in a formal implication. This relation is the 'strict implication' of Mr. Lewis, and holds between some only of the cases where material implication holds.

With these reservations as to his account of 'strict implication,' I agree with Mr. Lewis that there is such a relation, that it is different from material implication, and that it is 'strict' and not 'material' implication that we are generally concerned with in our thinking. At the same time I must demur from his conclusion that 'strict' implication should have been used by Mr. Russell instead of the 'material' kind. Mr. Russell, in dealing with the principles of mathematics, is concerned only with pure logic; whereas 'strict' implication, as Mr. Lewis is at pains to point out, is a notion of applied logic, the particular logic which we human beings actually use. Mr. Russell has to show what fundamentals there must be, if there is to be any systematic reasoning at all about things; Mr. Lewis is concerned about the fundamentals of the system of reasoning actually practised by mankind. Material implication, being a more general relation than strict implication, is necessarily a notion more suited to pure logic.

III.—WHERE DO PERCEIVED OBJECTS EXIST? ¹

BY DURANT DRAKE.

THE question that forms the title of this paper is one of those crucial questions to which a definite answer must be given by any thoroughgoing system of realism. Idealism, in its easy fashion, escapes it. But as soon as we conceive the world realistically, as a time-and-space order of objects, we must set to work to find a place in that order for every known fact. If we fail to find a locus there for perceived-objects—those surest of all existences, if we leave them in some *terra incognita* outside the natural order, then, however loudly we call them 'objects,' we are really sliding into an ontological dualism, and might as well call them 'mental' and be done with it.

It is not an answer to this question to insist that the peculiarities of perceived-objects are physically explicable—as when Prof. Dewey tells us that the convergence of seen railway tracks is due to well-known optical laws. Doubtless. But now to our question. Here is a perceived-object describable as *converging railway-tracks*. Where does this object exist? Not along the actual right of way; those tracks were laid and remain parallel. Not where the real train is to run; certainly one would dislike being on a train that had to run over converging tracks. Where then? We are not told.

Or take the well-known drab tree seen by the colour-blind man. It is as real to him as our green trees are to us. But surely the 'real' tree is not drab. Where then does this drab tree find room to exist—with space already filled by green trees, and other objects? It has a name ('perceived-tree') kindly provided by the committee on definitions, but it has no local habitation.

One way out of this difficulty is that which is adopted, if I understand him, by Prof. McGilvary. Perceived-objects

¹ This paper, in an earlier form and under another title, was read before the American Philosophical Association on December 27, 1911.

exist in the same time-and-space order with real-objects, interpenetrating them and occupying often the same bits of space simultaneously occupied by quite alien real objects. Only one real object can occupy the same bit of space at a time; but perceived-objects are not so limited, and can overlap and telescope into one another and into real objects to their hearts' content. Qualitatively different and incompatible as they are, they will not blend into one real object; nor have they always the opportunity to do that if they could, since the real-object may have disappeared entirely and its place been filled by some other object at the moment when the perceived-objects exist. But if the real-objects which apparently fill up space have not really a monopoly of it, and will permit perceived-objects to stand, as it were, in their very shoes, we can proceed to pack both sets of objects into the one time-and-space order.

But this species of juggling hardly seems satisfactory. If perceived-objects are truly existing amidst real-objects, why are they not efficacious there, and discoverable there by others than the particular perceiver? Truly they are in the world but not of it. Moreover, since they are undeniably functions of the brain-process of the particular perceiver, and stamped with the ear-marks of a particular organism, how do they get out into the world? What is this mysterious process of 'projection,' and what is its mechanism? The whole matter remains puzzling and dubious. Perceived-objects are *personæ non gratae* in the physical world.

Another way out is to frankly give up the conception of a single temporal-spatial order into which everything must fit, and let reality consist of any number of spaces, which perhaps interpenetrate, but cannot be dovetailed together. But then it must be explained why science seems to give us a single order. And this non-dovetailing world is not one that it is easy to believe in. Of course we must "accept the universe," as Margaret Fuller grandiloquently did—evoking Carlyle's brusque "Gad! she'd better!"—accept it for whatever it seems to be, genuine universe or hodge-podge of irrelevant spaces. But if we *can* construct a world-theory that includes all known facts in one coherent homogeneous natural order, that theory will be in so far more plausible.

My own belief is that a theory which, at least from the standpoint of this particular problem, may perhaps best be called Representative Realism, can meet this desideratum. By putting perceived-objects not at the real-object¹ point,

¹ I use the terms urged by the committee on definitions of the American Philosophical Association, though I consider them somewhat misleading.

but at the brain-point in the world-order, we can picture a homogeneous natural order into which all our delicately-varying and evanescent perceived-objects can fit without unduly jostling one another. There is not room for them all at the real-object point; there is room for them, each in its separate organism. Our several perceived-objects are each the effect in a different organism of the one real-object beyond the organisms; an effect which varies concomitantly with the variations in that real-object, acts as a functional substitute for it in the life of the organism, and may therefore be called a representative in that organism of the real-object.

I am aware that the account of perception as representation is discredited just now. The feeling is prevalent that it has had its day. But I am convinced that it can be so formulated as to escape the objections commonly raised to it, and that to it we must return, as to a haven of refuge, after the present period of striving and straining for an epistemological monism.

I first wish to make clear that I do not use the term 'representation' to mean copying or picturing. The perceived-object is not a miniature of the real-object. It may be, for all we can now say, as different in nature as a colour is from a sound. It 'represents' the real-object in the sense in which a member of Congress represents his constituency; *i.e.*, it acts for it and is responsive to its changes. We have such representation in the rise of a column of mercury, which represents the temperature of the air surrounding it; and in the motions of the hands of a clock, which represent the positions of a point on the Earth's surface in its rotation about its axis. But in the case of the brain we have a vastly more elaborate mechanism of representation—*i.e.*, of variation concomitant with variations in the outer world—and we have these representative elements serving as cues to the organism in its behaviour toward the represented objects.

The second point to emphasise is that a representative realism does not imply a dualism of substance. There is, I believe, one homogeneous world-order, in which perceived-objects are as real as real-objects, and not ontologically different. In this world-order certain groups of qualia are so causally related that group B varies responsively with group A. The representing qualia (group B) are elements in a continuous natural process with the represented qualia (group A). But there are two sets of qualia, not one; and it is the second set that is the perceived-object. Perceived-

objects then are as real as real-objects ; but they are not those particular real-objects which they represent. They figure in that particular context as contrasted with the reality beyond the organism of which they are the remote effects ; but if we were to make them in turn the objects of our perception they would figure as real-objects, in contrast with a new set of representing qualia, a new perceived-object, which we should call a brain-event. Thus there is no absolute cleavage into ' physical ' and ' mental '. Representation in perception is just a power, acquired on an elaborate scale by the brain, of variation concomitant with the variations in external objects, which results in a minute adaptation of the organism to them.

But how can we say that perceived-objects exist in the brain, when they so obviously exist outside the brain ? Here is where most people balk. Yet it is because they do not get all the way into the theory. Of course the statement would be nonsense on an epistemologically monistic theory ; but it is precisely an alternative to that theory that I am maintaining. If when we looked at a brain our perceived-object (brain cells in motion) were the reality existing at the brain-point in the world-order, then that reality obviously could not be, *e.g.*, a perceived-tree. But let us be thoroughgoing in our position. Just as the perceived-tree is a set of qualia existing not at the real tree-point but at the brain-point, so the perceived-brain-event is a set of qualia existing not at that brain-point, but in the brain of the perceiver of that first brain. That is, the qualia in terms of which we think of brains may be as unlike the qualia existing at the brain-point as the qualia in terms of which we think of trees may be unlike the qualia existing at the tree-point. A perceived-tree is truly outside of a perceived-brain ; if our perceptions are truly representative, the real-tree is then outside of the real-brain. But the perceived-tree may well be inside the real-brain. And our identification of perceived-objects with real-brain-events is made particularly plausible by the fact that perception-brain-events must obviously have a relation of correspondence with their outer stimuli, while perceived-objects (if they are not identical with) must have a relation of correspondence with the real-objects of which they are the effects and ' representatives '. On our theory we have really but one correspondence, described first in terms of representative perceived-objects, and then in terms of the real-objects represented.

The difficulty in grasping this possibility lies in the fact that we irresistibly think of our representing qualia (per-

ceived-object) as existing where the real-object, the represented object, is. For we are interested in them not *qua* existences *in se*, but *qua* representatives of the objects beyond us, the things we point to and move among, which have such power for weal or woe over us. Nothing is to be gained for practical purposes by making this discrimination, and so practical man has not discovered it. There is nothing in this indiscrimination of practical experience to make against the theory. The quality of out-there-ness belongs to our representing qualia just as truly as colour; it implies nothing directly as to the place of the group of qualia in a world-order. On our theory this quality (produced at our end of the perception-mechanism as truly as any other) represents the real spatial relation which the represented object bears to our organisms. If one will repeat several times the time-honoured experiment of shaking the eyeball, one can soon learn to think of this dancing set of qualities—colours, forms, appearance of distance, etc.—as a picture of (but do not take the word to mean a copy of) the realities beyond one, which cannot be conceived to dance when one shakes one's eyeball. The representing qualia dance, the represented qualia remain still. How simple all these facts of the relativity of perceived-objects to the organism become on our theory; how puzzling they remain on any epistemological monism!

But now, if we accept the representative theory, we must admit that all we ever *have* is the representing qualia (perceived-objects). How do we know that there *are* any represented qualia (corresponding real-objects) beyond our experience? Well, we never can directly and absolutely know. Any form of realism must be content to simply believe in all that part of its universe which lies beyond the experience of the philosopher, with the justification that such a belief is necessary to explain the peculiarities of what falls within experience. Perceived-objects are notoriously fragmentary and not self-explanatory; they are broken pieces, as it were, like scattered fragments of an antique sculpture. Their shape, so to speak, and their recurrence at predictable times, are meaningless unless we assume a whole world-order of which they are a part. All forms of realism have to assume such a world-order. If a world-order can be conceived into which our fragmentary bits of experience will fit, and by means of which their peculiarities and their abrupt appearance within experience can be explained, we have the strongest ground for holding that that conceived order represents an actual order. The theory I

am maintaining is no worse off than any other realistic theory in its claims upon our credulity. If we believe in a more beyond experience, and if that right to believe where we cannot prove is granted, the only advantage of any one form of realism is that its conceived world contains more readily, without stretching or squeezing, the data of experience. So far as the prior question is concerned, it seems to me that we have exactly the same justification for believing in a total world-order that we have for believing, *e.g.*, in an actual historical process of evolution, in order thereby to explain the otherwise isolated and meaningless data of palæontology, etc.; or for believing in any theory whatsoever that goes beyond a mere description of observed facts. And as for the second point, I claim for representative realism the merit that it, better than any other form of realism, can contain and explain known facts. Therefore it is to me the most plausible metaphysical theory.

Perhaps the most striking advantage of the theory is that it enables us to understand what consciousness is. It explains its presence in a material world and shows its relation to the rest of the world-process. Consciousness is not a peculiar stuff, it consists of the same sort of elements that make up the rest of the universe. At certain points in this universe a mechanism has been developed which produces various sets of events varying concomitantly with events in the surrounding world. This representative mechanism is so connected with the motor-mechanism of the organism to which it belongs that it is able to guide that organism in its dealings with surrounding objects. The important aspect of consciousness lies in this peculiarly intricate and responsive mechanism of representation. Past events are represented—the representing qualia are what we call memories. Future events are tentatively represented. Absent objects, affecting the brain through various causal channels, are represented. These various representative elements interact and result in organic adjustments. The mechanism of memory gives to this group of elements a large part of its unity, which for the rest consists in the close causal union in which they are bound. The mechanism of perception transforms it from a reverie into a something that reflects and functions in relation to a wide environment. Consciousness is a group name for these organically interwoven elements—the most intricate and self-transcending (*i.e.*, responsive to and influencing events beyond it) bit of the world-process.

This sounds like a description of the brain-process. And

indeed, those qualia that make up our picture of a brain-process are precisely the qualia which would represent, in a perceiver's consciousness, the conscious-process (the real-object) perceived. When we think of that reality in terms of brain-cell-explosions, etc., we are thinking of it in terms of such representing qualia as a bystander would have who should receive messages from it through eyes and hands. In studying the brain-process we are really studying, through a glass darkly, *i.e.*, by means of representative facts in our own consciousness, this other consciousness. And just as the brain-process is seen to be a natural flowering of the evolutionary process, when we are talking in terms of the qualities things have representatively, for us, so consciousness itself, which we are all the time indirectly talking about, is a natural flowering of the real world-process. It is not a new substance or new relation added to the world, it is but a complexification of existing elements and relations. It is not an inexplicable 'awareness,' it is a group of elements which simply exist, as all the world-elements do. When we have described in full qualitative terms one such group of elements we have described one man's consciousness or experience.

For each of us is a consciousness. You and I are just such organic processes, set up at different points amid a less organised world. Of course the personal pronouns may be used to mean the total organism; but in their most significant use they denote a single conscious life, which is only a part of the life of the organism. Certain elements are so causally connected, and so furnished with a mechanism of memory, that a memory (a representing element) of any one of them is arousable at any time from anywhere within the complex. Whatever is within this complex can directly influence speech and the other consciously directed activities of the organism. Its very qualities can be remembered and thought about within that particular mechanism. In brief, whatever you can remember was something within that process, that consciousness, which is *you*. Whatever was outside that causally related network is not directly remembered, but only remembered, thought and talked about, "known," as it has been represented by some elements within it. Thus the 'egocentric predicament' is a natural result arising in a natural order, and is nothing to worry about or cause distress.

This scheme of things, which brings representatives, functional substitutes, of things into consciousness, but leaves the represented things outside, seems to me best fitted to

serve as framework for the facts of perception. It also is able to deal much more readily than an epistemologically monistic realism with illusions and ideas and all 'subjective states'. What to do with these bogeys remains an insistent challenge to that theory. Whereas on a representative theory they fit very nicely into the conscious-process and are to be discovered by science under the representative form of brain-events. But a development of this point lies beyond the scope of this paper, which limits itself to urging a representative theory of perception.

IV.—THE VEDANTIC GOOD.

BY P. NARASIMHAM.

As is the way by which men try to approach Me, even so do I receive them ; men in all their endeavours, Partha, are treading the path that leads to Me alone.—*Bhagavad Gita*, iv. 11.

THE problem of the Good as an object of study is one that is concerned with that Ideal of Life which gives it its true and full significance. Such significance is what can be fully appreciated only from a general philosophical point of view ; that alone can be the real Ideal which *at once transcends and permeates* the multiplicity of life activities. We find in modern thought two distinct tendencies that can be broadly characterised as 'scientific' and 'philosophical'. The former concerns itself with a mechanical unity arrived at from the standpoint of the 'many' and the latter with a study of the significance of the details from the standpoint of what it takes as a comprehensive and transcendent unity. Every philosophical position, we may assert, is an expression of the self-consciousness of man. For, man is capable of a peculiar self-transcendence and of forming a centre from which to study, being a unique centre of unity by himself. I take it as almost settled by the best thinkers on the subject that in order to attain the greatest comprehensiveness of view of life the latter view alone must be adopted. In other words, a theory of morals is best established only when it is intimately connected with a philosophy or metaphysic of Reality. No rational self-conscious being can be satisfied with a fool's paradise. It is therefore necessary that we should note the primary importance of an adequate standpoint in studying moral phenomena. More than to anything else, the divergences and controversies in moral studies are due to the differences in the standpoints of the various writers on the subject. The scientific or historical view of morals is too narrow and sometimes even too unpsychological to be taken seriously as the ultimate word on Life and its problems. The philosophic standpoint is unique in that the problems which it raises are peculiarly comprehensive as contrasted with the necessary self-limitations of a mere 'scientific'

enquiry. There is thus no *real* conflict between critical philosophy and critical science; for, the differences between the conclusions of the one and those of the other are due to the initial divergences in their standpoints and the questions consequent thereon.

The aim of this paper is simply to explain briefly what the meaning and value of Life are, and how certain ethical problems present themselves, from the standpoint of Vedanta that was taken up in the 'Vedantic Absolute' in MIND, N.S., No. 81.

From the Absolute point of view the ethical life, the life aspiring after a 'better,' is a life involving an 'opposition' between 'good' and 'evil'. Hence the ethical endeavour as such involves a 'contradiction' and is not expressive of the nature of the Real. Ethics is therefore of the 'appearance'. But this does not and should not imply anything subversive of morality. It is only a misunderstanding and misapplication of the Absolute doctrine that argues against morality. It should only mean that so long as the consciousness is involved in the dualism of practical normal life, so long as it has not evolved to have an immediate apprehension of the Unity, so long is it bound by ordinary ethical considerations. There can be no law higher than that of being true to oneself, to one's own Consciousness. Hypocrisy is the worst of evils, is the real sin against one's Holy Ghost. One must therefore be in a position to realise the absolute unity of Reality before one can be said to have transcended good and evil. This hypothetical state of Consciousness is not a chimera, but the verity of verities realisable by earnest endeavour; and Vedanta is built on the solid foundation of such consciousness. If we grant the possibility at least of this as a fact we can profitably pursue our enquiry further. It is in the light of such consciousness that we can understand what is to be known by the expression 'beyond good and evil'. For, at that transcendental level of consciousness one realises that everything in its way is an expression of the Absolute Good, and that our ordinary distinctions are petty because of the distorted point of view of the ordinary consciousness. Vedantic Ethic (if we may use this expression at all) consists then in gradually training an individual from a state of being involved in a dualistic position to one of monistic realisation. But we must first be involved in the opposition, speaking from the point of view of evolution, between good and evil, before we can aspire to get above it. For, the Absolute Unity of Vedanta is capable of being ap-

preciated only when one is a *true individual*; and individuality can develop only by the opposition between 'me' and 'not me'. The specific characteristic of mankind which Vedantic Ethic takes into consideration lies in this double nature of man—of being apparently involved in the opposition and yet of really transcending it. The 'beyond good and evil' is not the result of a mere make-believe, not the dream of a psycho-pathic brain, but the Absolute Good reproducing itself imperfectly in the many 'goods' of our relatively endless ideals. It is meaningless to suppose that Vedanta teaches that we should behave like a stone or a tree, or even a beast—the below good and evil. Only after the transitional stage of conflict has been passed through, only when our consciousness has 'sensed' the Unity, can we aspire after the beyond good and evil. There can be no self-conscious delusion anywhere and every one is the best judge for oneself in this matter. Until therefore the true divinity in us expresses itself, we should act as if the dualistic position which ethical life involves were real. When the Indian sage says, "I am Brahman, the Absolute," he means that this is an immediate fact of his consciousness, and it is not for the layman to deny it lest it should be like the blind man's denial of the glories of colour. The practical life of ethical endeavour is therefore a means and not an end in itself; and for one who has seen the 'beyond' to behave in a reckless evil way would be a psychological impossibility. In the name of Truth itself we should not deny facts of consciousness merely because we cannot comprehend them by our petty psychological theories. When we therefore speak of the Vedantic Good we mean that absolutely there is but one Good, the contradistinctionless Absolute itself, as the ultimate Goal, and that the ordinary ethical realisations are what, as involving contradictions, should merely be passed through as necessary preliminary stages for the ultimate realisation of the unity that ever is; for, at that level one sees no "other". The Ethic of Vedanta teaches us how to pass from this seemingly endless cycle of relative good to the Absolute Good whose *mayaic* reflection the former is. It supplies us with a standpoint from which we can study all our ethical endeavours gradually disappearing into their absoluteness, and by which we can cease to be merely ethical. It is this aspect of the so-called Vedantic ethic that we have to keep in view in order to understand its relation to the various other ethical systems. We should then equally be right in saying that Vedanta is not ethical; for, either, as being

based on an 'opposition' belongs to a thought 'lower' in level or less in a dimension, than the Vedantic that has to do with the 'beyond'. Vedanta thus understood is not subversive of morality, but the completion and crowning glory of a pure ethical life.

We are sometimes apt to think, from a survey of the different moral codes of the various peoples of the world, that since they do not apparently supply a clue to any ideal unity, the moral phenomena are mere natural events born out of the fiction of spontaneous variations which has formed an integral part of a purely material theory of evolution. In being dazzled by the mighty mechanism of the universe-process our philosophic sense of insight sometimes becomes blinded; and we are unable to get out of its enchanted circle. Did we exercise for a time the prerogative of our self-consciousness (limited though it be)—because it alone gives us true insight when rightly used into the nature of things,—we should see the apparent self-deficiency of our evolutionary theories. I do not for a moment mean that it is possible to convince others of the importance and reality of the philosophic standpoint which alone opens this line of inquiry; it is not what can be imparted from outside, but what must be born from within. It must be presupposed for our present purposes. It is only at a particular stage in mental evolution that man becomes a fully self-conscious being able to guide himself. Before that, man as the primitive man, must have been taught to do things which he could not have learnt himself. In fact he is just like the child who having no initiative of its own, learns first by imitation from elders and thus builds foundations for future progress. So the natural explanation of some of our anthropologists sometimes involve psychological miracles. The historical study of primitive human institutions even as they are understood as obtaining in modern savages must, in order to be valuable, be accompanied by philosophic insight. We can then say that primitive man was not so helpless a being as we fancy him to be, but that ever since the earth became habitable there were always highly cultured human beings as pioneers side by side with savages even as we see them at present. From a study of savage traditions and civilised epics we may rather say that the modern savage represents more a type of degeneration than one of human origins. It may be truer still that the primitive man like the child had actual external help given him, being in greater need of it than ourselves because of his less developed self-consciousness,—the probable fact underlying the 'savage' belief that in those early

days gods lived and moved with men.¹ Understood thus the gradual unfoldment of human possibilities which we call history is one of intense interest as revealing to us in the highest sense the spirit of what we may call evolution, evolution of not mere form but of form as revealing an evolving life. For, evolution of form is because of the evolution of Life or Spirit and not *vice versa*. It is in this light that we are to understand the various human institutions and human endeavours as progressive manifestations here and there according to 'circumstances' of the ever evolving Life of the universe. This is the spirit of the opening verse of this paper. It is for lack of this insight that merely anthropological studies are often partial and enigmatical. History must therefore be combined with philosophy and psychology, that it may have any real value. It cannot be merely mechanical. The divergences in moral life are not therefore the despair of the moralist but rather the hope and possibility of future regeneration. The Vedantin for one is not perturbed by these differences, but sees one implicit mighty unity with its explicit infinite variety in all of them. The psychology underlying the Vedantic tolerance is that all desires and ideals express endeavours towards some kind of self-realisation—the 'appearance' here 'below' of the unity of the Absolute Self 'above'. "The righteous worship Me, O Arjuna, in four ways; they are, the afflicted, the seeker after knowledge, the seeker after objects of enjoyment and the wise, O best of Bhâratas" (*Gita*, vii. 16). These are different kinds of self-realisation, in the first three of which the self sought is limited; in the last, of the wise, the self sought is the One Self of the Universe. Hence, "Of these, the wise, ever harmonised, with One object of worship, are the best; I am dearest to the wise and they to me. It is well with all these seekers of Self, but I hold the wise as verily Myself; he, at one with the Self, is rooted in Me, who am the supremest Path" (*Gita*, vii. 17 and 18). Such is the basis of the unique tolerance which is the characteristic feature of a true Vedantin; for he knows in a very fundamental way that Virtue is Knowledge, that what one chooses is what one knows or believes to be one's *alter ego* (so to say philosophically). But this does not mean that he is apathetic to what we know as 'evil,' but that the so-called evil is what is to be good and is ever becoming good; for 'evil' emphasises its internal 'contradiction' whose gradual elimina-

¹ Stories from Hindu Puranas go to show that previous systems of worlds or Kalpas supply for a succeeding universe the fruits thereof in the way of highly evolved beings for the guidance of its earlier humanities.

tion makes of it more and more good. For the Vedantin, the distinction between good and evil is one of degree ; evil is only less of good and is ever evolving into the Good in the Appearance-world. For him, ethically speaking, the world is a process of becoming good ; and he, feeling at one with its Spirit, co-operates with the process. There is thus no inactivity in him, but on the other hand a field of never-ceasing activity for the Good. We must at the same time keep in view the peculiar standpoint from which the Vedantin acts in the world-process itself. It is in this connexion that we are to understand the statement that the true Yogi, Vedantin or Brahma-vit, is both active and inactive. "He united by Yoga, purified by Self, conquered by Self, whose senses are controlled, whose Self is the Self of all beings, though acting is not affected" (*Gita*, v. 7). He is active as we all appear to be active ; but in himself being at one with All, he is not active, for, being above the oppositions of actor, act and the acted, the predicate act cannot rightly be ascribed to him. This is the spirit of what is known as Karma-Yoga in Vedanta, of Yoga which teaches us how to act. When Vedanta speaks therefore of inactivity, it is with reference to one's own conscious attitude that it so says ; it is not a doctrine that inculcates stony passivity leaving the world around to rack and ruin. Says the *Gita*, "As the ignorant act from attachment, O Bhârata, even so let the wise act but without attachment keeping in view the integrity (or solidarity) of the world-process" (iii. 25). (Attachment is a technical term used to signify the ordinary man's identification of himself with the limitations of an actor in a given situation.) "At-one with pure Wisdom (Spirit) one transcends both good and evil deeds ; strive therefore after this At-one-ment. Yoga (At-one-ment) is dexterity in action" (ii. 50). There is no opposition between higher and lower duties in Vedanta. Whether one be a king or a peasant one can equally be a good Vedantin ; a duty is just a duty however mean its object be (as we with our meaningless distinctions would say). With the absolute vision one sees each in its proper place as expressive of the Absolute. Whatsoever happens to be done by us, we should do it with all our heart, with all our soul and with all our might, but yet with perfect detachment. Such is the action of a true Vedantin to whom one's duty perfectly done is as good as any other's. The eighteenth chapter of the *Bhagavadgita* says : "Man reaches perfection by being concentrated each to his own sphere of action (duty). Listen how one becomes perfect by being attentive to one's duty. By worshipping Him

from whom all these things proceed, by whom all this is permeated, each according to his duty, men obtain perfection. Better is one's own duty though mean than the well-executed duty of another. Doing what befalls one as one's duty according to one's nature, one never reaps any evil. A duty due to one's own nature, though defective, one ought not to abandon, O Kaunteya; all endeavours are pervaded by evil (an internal contradiction) as fire is by smoke. He whose will is everywhere unattached, whose (personal) self is controlled, whose desires are turned back, realises by renunciation the supreme perfection of transcending action (or duty)" (45 to 49). "He who does an act of duty because it ought to be done, without attachment and desireless of fruit, is pure (or perfect) in his relinquishment. (This is the true inactivity of a Yogi.) The relinquisher centred in purity, wise and with all his doubts destroyed, neither hates an unpleasant act nor is attracted to a pleasant act. It is not possible to completely cease to act so long as we are embodied; he who denies himself the fruit of action, is the true relinquisher" (9 to 11). This is accomplished not by a psychological somersault, but by the expansion of consciousness which every one has to verify to oneself.

The ordinary ethical consciousness from the Vedantic point of view is thus one which, appearing during a particular period of human evolution, must necessarily disappear into a beyond good and evil. Vedantic Ethic as distinguished from ordinary ethical systems takes up the instruction of man when he dimly perceives the unity of Life, and when he has sufficiently done with the ordinary notions of right and wrong, and gradually trains him towards a clearer apprehension of the unity by asking him to behave as if he is feeling the unity actually. This is not preaching self-delusion; it has as its basis the fact that function inchoate at the beginning creates its own proper organ of perfect perception or action.

Further, the ethical consciousness presupposes a peculiar freedom, a freedom of choice (whatever our psychologists may say of the mechanical phase of it) which is only the aspect of self-initiativeness resulting from self-consciousness. Man being a self-conscious creature, representing in miniature the cosmos—from the Vedantic point of view a microcosm—has in him 'reproduced' within varying limits the freedom-aspect of universal Spirit. This may be called his natural freedom which is the presupposition of ethical life. This does not mean going counter to psychological laws, but working with them for one's own ends. The germ

of this may be seen even in some specially trained higher animals. When we are working for a physical result ordinary natural laws do not stand in our way as obstacles; on the other hand, even working with them we master nature. So also with the natural laws of psychology. The ability to master the latter is due to the fact that the real man is higher than what we know as the mind. Thus psychological determinism and freedom are not opposed to each other—each being intelligible only in the light of the other—but are rather different aspects of the same fact according as it is viewed from the lower, external and mechanical, or the higher, internal and teleological point of view. It is only in man that these two show their explicit nature; whereas in the lower kingdoms, because of the absence of the inner point of view, neither of them can be said to be. This natural freedom of man is what can be said to exist not only when he chooses right, but also when he chooses wrong, its cognitive counterpart being what we know as the unity of self-consciousness. Higher than and transcending this natural freedom is the spiritual freedom which Vedanta teaches as the specific quality of evolved consciousness. The very object of Vedanta is to enable one to realise one's higher transcendental nature which makes of one a being both of and above nature without contradiction. The *Gita* says plainly that even a Yogi, one who has realised the Unity, when working with matter, physical or psychical, works only by taking its laws (as expressing the Will of the *Ishvara* of a system) into consideration. He cannot be a perpetual miracle-worker suspending natural laws to show his powers of mastery and freedom. "Even the man of Wisdom acts in conformity with the laws of his psychical nature. All creatures follow their own nature. There is no place for suspension or restraint (of these laws of nature)" (*Gita*, iii. 33).

It now becomes apparent that the various ethical systems are not completely wrong, but express the morally evolving life in its various gradations. The greatness of the universe is its variety; absolute equality is the disappearance of the world itself. The Vedantin knows how to sympathise with our various endeavours. Vedanta inculcates individual freedom—the only necessary condition for true freedom,—and is against aggressive proseletysing spirit; it does not see any change as valuable except when it is a result of psychological development. It respects the varieties of the world knowing that variety should be for the very being of the world. Hence alone it requires that one ought to respect

one's duties due to one's station in life as one in the many, and yet that one ought to internally realise the unity of the whole. A true Vedantin cannot be a useless burden on earth, but rather the specimen of the best of the citizens of the world; he works with the world trying where possible and necessary to lift it without confounding it. The error of the various ethical systems when they get to criticising their neighbours is their intolerant vanity to assume absolute values for themselves. In recognising different degrees of comprehensiveness in our ideals we should not lose sight of the progressive historical value of each. Even Vedanta with its peculiar comprehensiveness cannot be made universally applicable to all as they are; for it is, like other ethical theories, dependent upon the psychological predispositions in the individual with reference to which alone it has value. In the history of the evolution of Spirit all the theories represent the various phases of its gradual unfoldment. But, again, this should not lead us to misunderstand the Vedantic position as a mere inert æsthetic contemplation of the world-process; it should only imply that the Vedantin, feeling unity with the world-life, sympathises with the variety of its progressive character and actively co-operates with it for the End. The Vedantin, so to say, is able to simultaneously live in two 'worlds,' the world of appearance and of Reality, because of his richer consciousness, and to function the better in the former for his very knowledge of the latter. The true Son of God hath not where to lay his head in idle rest. He is a blessing wherever he is, for he alone knows the secret of true activity. "Yoga is expertness in action" (*Gita*, ii. 50). He makes no distinction in duties; one's duties are as divine to one as other duties to others. "Better one's own duty, though devoid of excellence, than the duty of another excellently performed; better destruction in one's own duty. The duty of another is dangerous" (iii. 35).

Ethically man is a microcosm with the particular aspect of conflict between 'good' and 'evil' tendencies well emphasised in him. Man is specifically an ethical animal, though we may admit that some of the higher animals also show signs of this characteristically human quality. Of course this only shows that there are no gaps in nature; but it cannot be used as a means of explaining away the ethical problem by tracing its origins to the lower kingdom. 'Before' man there is not, properly speaking, the ethical conflict, and 'after' man also it should 'naturally' disappear. The basis for our taking up this position lies in a proper and unprejudiced appreciation of human nature in

all its graded variations, of what we should take as true psychology. If there are any errors in our philosophies they must ultimately be due to our erroneous systems of psychological sciences. Modern psychology has degenerated into a branch of physical mechanical science. It leaves facts that it cannot explain without explaining away, as hallucinations and things of that ilk. We sometimes get satisfied, strange to observe, with mere words which, instead of explaining, merely prevaricate. The late Prof. James protested in the name of truth and fair-play against the unscientific indifference and even prejudice of modern psychology towards certain phenomena of consciousness which he roughly brought under the head of religious experience. Many more "psychical" facts there are which some psychologists dread to think of, like little children fearing strangers. Until this 'scientific' bias is got rid of we should be postponing the days of enlightenment. Anything abnormal is now labelled along with subnormal and pathological. Unfortunately, with rare and valuable psychological phenomena, unlike physical events, we cannot make others acquainted, because they are one's own property, as we say ; and this very rarity of their occurrence is used as an argument against them instead of against the narrowness of our ordinary conceptions.¹ If our modern psychology were more adequate, many of the problems of philosophy would find their solutions very easily. The ethical definition of man, then, is dependent on an adequate psychology, and for purposes of Vedantic Ethic we shall take man as double-natured—the most general of the Vedantic studies of human nature—as mortal soul and immortal spirit (the lower and the higher self), the physical body standing not as an independent conscious principle, but as part of the mortal self, since its sole function is to serve merely as the medium of expression for the true Self of man in the physical world. The very end of ethics is just the perfect unification of this double nature in man. "Let one raise the self by the Self ; let not the self be depressed. For, verily the Self is the friend of the self and also the Self the foe of the self. The Self is the friend of the self of one by whom the self is controlled by the Self. The Self is verily the foe of hostility to the not-self (the uncontrolled self)" (vi., 5 and 6 of the *Gita*). This conflict is due to the usurpation of the nature of the higher Self by the lower in this world of apparently absolute divisions and hence of delusion.

¹ We understand anything only by a sort of transcendence ; the higher alone can understand the lower and not *vice versa*.

The 'essence' of man as the higher Self is identity (for want of a better term) with the Divinity in nature. He is an eternal self-conscious ray of Isvara, or God of a world-system, manifesting, though unconsciously to himself, to the extent of his limitations the glory of Him from whom all this is. But being deluded by the envelope of Māya in which he is, he identifies himself, through Avidya or ignorance, with parts and isolates himself from everything around. With the birth of Vidya or true knowledge he realises his true nature as one with the Divinity. Man thus is an evolving spiritual unit for ultimately realising the true Self through certain phases of pseudo-selfhood. In the Absolute Self of Isvara (if we may use the expression) one and all are One in a way not expressible in our mortal words that have their proper place only in a mortal world. We, as men, are concerned only with this human evolution (which perhaps is one line of evolution in this infinite world), and what lies farther beyond is not to our immediate interests. It is on this human-divine nature of man that the Vedantic Ethic is based and specifically concerns itself with leading him beyond mere humanity, and hence beyond good and evil to true spirituality.

We are now in a position to understand in greater detail some of the most prominent aspects of the Vedantic ethical system. From a study of its literature we notice a very close relation between its metaphysic and its ethic, and also how the former is entirely based on psychology or facts of consciousness.¹ Psychology reveals to us the nature and function of the "elements" making up the complexity of human nature, and for ethical considerations nature is definable in terms of functions or functional values. If the psychological and metaphysical part of Vedanta be ignored we should be very far from understanding the drift of the Vedantic Ethic. It is perhaps this mistake that is to account mostly for the grave misunderstandings concerning such a work as the *Bhagavad Gita*. *Gita* is *par excellence* the all-round Vedantic work if we only know how to study it. The two extreme views regarding it, *viz.*, those of the orthodox Hindu on one side and of the "heterodox" Western Orientalist on the other, the one worshipping almost every word of it as god-given without ever caring to live any of its teachings, and thus realising its spirit in one's own con-

¹ In a sense Vedanta is out and out empirical; but it is not an empiricism of the sense, but of what may be called the Spirit, of a something transcending our ratiocinative faculty or intellection.

sciousness, and the other seeing in it nothing but a jumble of contradictions and psychological monstrosities, relieved now and then perhaps by a sublime thought, must be scrupulously avoided if we want to understand it at all. It is only by actual living and not by its words that we can appreciate its value. Still *Gita* cannot be considered as the gospel for all peoples indifferently; it appeals only to those who, like Arjuna to whom it is supposed to have been first addressed, are by their psychological equipment fit to take up the Nivritti path in Evolution.

There are two cardinal teachings of Vedanta which must be noticed now in order that the ideal which it sets up may be clearly appreciated. These are Reincarnation and Karma, which are very intimately interconnected. The true Man—called the Kârana-âtma, lit. the causal self—is conceived in Vedanta as the abiding *human Self* throughout successive incarnations which he takes for the evolution ultimately of the Ideal consciousness through various kinds of experiences.¹ This is not due to any express volition on his part, but to the universal law of Causation known as Karma which compels his rebirths because of the causes that he has generated in his past lives. It is because such causes are retained as dispositions in his true human self that he is called Kârana-Atma or causal self. On the realisation of the Ideal these causes lose their compelling force on him and he becomes Karma-free since he transcends this level of world-life. Hence it is that we find sometimes stated in Vedantic literature that this freedom from compulsive rebirths is the end or object of human life, though this way of putting the matter obscures the positive character of the Ideal. To state the matter briefly, reincarnation is due to Karma and Karma is due to ignorance or avidya of identifying oneself with one's mortal separating upâdhis or bodies of functioning. Getting rid of Avidya or attaining Vidya is the End. Avidya is useful for the building of individuality which alone makes possible the realisation of the Unity of the Absolute or Vidya. Avidya thus is the knowledge of the mortal world leading one to the portals of Immortality which is realised by Vidya. One consequently acquires Vidya

¹ The value of experiences for this purpose is to correct the errors of identifying the Self with any particular thing. Pain in the most general sense is only a consequence of such erroneous identifications. Ordinary experiences are thus taken as painful in Vedanta, because they obscure the true Self. A misunderstanding of this position led some critics to think that Vedanta, like Buddhism, was pessimistic. The criticism is certainly pessimistic in not taking the larger issues also into consideration.

through first knowing Avidya or differences and distinctions in things. We must remember that nature is continuous and that there are no absolute distinctions anywhere. To describe the Ideal fully we may say that it is the Knowing-Feeling-and-Acting the Absolute Unity in our lives. Karma thus ceases to be for the individual when he gets above the delusion of the duality or opposition of 'me' and 'not-me'. It operates only so long as the individual feels apartness and otherness, and disappears when they cease to be. Whether this feeling of separateness be due to a bad or a good karma (or action) it matters little for Karmic liability. A man thus transcends good and evil only when he is Karma-free, when he gets over death (and also birth). The practical distinctions between good and evil¹ have their justifications in that the essence of what we call good is tendency towards unification, and evil separation, though so long as both these are permeated by Ahankâra or separative I-ness, the individual is karmically 'bound' and not 'free'. It is interesting to note that in Sanskrit "sat" designates both good and real, and "a-sat" both evil and unreal. Man, thus, can be and is the architect of his own fate, and Vedanta never was frightened by the nightmare of a rigid fate. The ability to take one's karma into one's own hands, however, implies that self-consciousness must have already sufficiently evolved; for, unless we know our limitations we can never attempt to transcend them to rectify them. What Vedantic ethic idealises is a condition above human self-consciousness which if we like we may express as divine consciousness. Our ordinary distinctions between good and evil, must, after serving their purpose, ultimately disappear into the one higher discrimination between the 'binding' and the 'liberating,' the 'illusory' and the 'real,' for purposes of the Vedantic life. The ordinary distinctions are conducive to personal happiness or misery (or heaven or hell of popular religions) as the case may be, but not to

¹ "Fearlessness, purity of heart, zeal after the Yoga of wisdom, charity, self-control, sacrifice, study of the scriptures, austerity, straightforwardness, harmlessness, truth, want of anger, renunciation, peacefulness, absence of meanness, compassion to all beings, uncovetousness, softness, modesty, absence of fickleness, prowess, forgiveness, fortitude, purity, absence of intent to do evil to others (mischief) and of pride—these are the qualities of one born of divine propensities. Hypocrisy, arrogance, self-conceit, wrath, harshness and ignorance are, O Partha, the qualities of one of ânsuric instincts. The divine qualities are known to be for liberation, the ânsuric (demoniacal) for bondage" (Bhagavadgita xvi., 1 to 4½).

the liberation which the Vedantin has in view. It is thus that Vedanta is not an ethic in the ordinary sense.

Thus the Ideal which Vedantic Ethic has in view is, positively speaking, one of Divine Solidarity of the world-life as a fact of one's immediate consciousness, when alone one has a right to claim to be above good and evil. Such a consciousness is in the course of evolution around us, and if not hastened in its realisation by special endeavour now, at least in the distant future it shall 'naturally' be as the 'one far off divine event' of the present normal humanity. Vedantic Ethic is only this special endeavour intended for those whom it may concern. It is this ideal, then, that lies at the back of the various maxims of conduct that have been given in books like the *Gita*. The same idea is conveyed by the teaching that we should lose our 'self' to find the 'Self'. The self to be transcended is our lower mortal separative personality, the illusory individual, and the Self sought after is the One Self of the Universe. The same is again what is meant by "deny thyself". The *Gita* says in plain terms that the Self, the Atma, is to be sought, because that is the only refuge. "But the man who rejoiceth in the Self, who is satisfied in the Self, and who is content in the Self, has nothing else to do (so as to obtain what he has not)." "Nor has such an one to obtain anything as a personal gain either by commission or omission; nor has he any vested interest in any being" (iii., 17, 18). The various ordinary ethical ideas, on the other hand, stand on just that illusory self as their basis that Vedanta wants us to transcend. Hence to speak of the Vedantic Ethic is a metaphor. It is not an end that Vedanta teaches us, but the End which all the world in reality, though unconsciously, is seeking—the true Self-realisation underlying the limited self-realizations of all our petty endeavours.

Now it becomes apparent that the 'Good' of the Vedantic Ethic, because it has no 'other,' involves no contradiction. For, the opposition between the 'real' and the 'unreal' is no true opposition, since the unreal is simply the non-existent, and we cannot say that non-existence is a kind of existence to be opposed to another kind of existence called existence proper. When one is asked to curb the passions and desires, to master the senses, to control the 'mind' or the lower self, it is the same idea of transcending separative consciousness that is ordained in each (and not merely a utilitarian end). For, the Real is not what is revealed by any of these; in a sense they are the 'slayers' of the Real. The Gitaic End is not an 'other' to us, be-

cause it is the Eternally Present; it is to be *realised*, not *acquired* by special endeavour. *Gita* is neither extreme intellectualism nor extreme sensationalism, but the consummation and fulfilment of both at once. The whole doctrine centres round 'desire,' the essential nature of the lower personal self; because, desire is in its various degrees of subtleness, so to say, the most powerful of our enemies, which blinds us from perceiving the true nature of Reality. "It is desire, it is wrath born out of Rajas (the essence of restlessness), the great consumer, the great polluter, that is to be known as our foe here" (*Gita*, iii., 37). On the other hand, well-subdued desires are likened to rivers, in the *Gita*, which entering the sea of Self, never can overflow it (ii., 70). It is not a psychological miracle that we are asked to perform but what is perfectly possible psychologically only when we truly understand ourselves. *Gita* does not preach stony passivity but the highest kind of activity that we are capable of. That is the meaning of the terms "unattached" or a-sakta, "Self-united" or Yukta, that we find constantly occurring in that little book. It is in this light that the doing of duty for duty's sake is inculcated therein. Any activity, good or bad, which one refers to oneself as proceeding from one as a separate entity, is binding and one becomes karmically responsible. But it is a mistake to suppose that Gitaic ethic teaches irresponsibility; for such a supposition lowers the ideal to the level of the beast instead of elevating it to "above humanity". It is the expansion of consciousness as witnessed by one's own 'experience,' and not its contraction, that the Ideal implies. Such errors are illustrations of the complete misunderstanding of the fundamental position of Vedanta (due probably to being misguided by words-without-ideas), and tend to lead to disaster both to the individual and the society in which one lives. So long as the mind is free from self-sophistication there can be no danger. Now that owing to rapid and constant means of communication there has been a greater impetus towards greater self-consciousness in the individuals and sympathetic unity in humanity, it is good that all cultured persons should be acquainted with this "higher" ethic.

The eleventh chapter of the *Gita* taken in conjunction with stories from Indian Puranâs throws a peculiar light on the Ideal. Man may be taken as the stage representing the beginning of Cosmic life. The human soul is to develop into an individualised centre in the ocean of consciousness in which it lives and moves and has its being, and which is the Isvara of the system itself. It is to lose all sense of separate-

ness being immediately conscious of the total life. Such an Isvara or the one Divine Man containing the results of the Evolution in past systems in the shape of other divine beings as parts of Himself, is what is depicted in a somewhat poetic form in the chapter referred to ; and the purpose of the present Evolution is to bring into existence an Isvara like unto the former for carrying on the evolution in future Kalpas or systems ; and we, as self-conscious units are to take part in it by becoming " parts " of the Divine Man who is now in evolution and who is thus One-and-Many-in-One. Such is the one mighty Individuality that is in course of preparation ; and taking part in that mighty Spiritual Co-operation is dependent upon our ability to transmute our petty personalities into pure individualities with the immediate consciousness of unity ever thoroughly permeating it.¹ This is the Supreme Path referred to in the *Gita*. It is the transmutation in a sense of the petty personal Karma or activity into the Cosmic Karma or universal action. There is thus no room for any stony passivity as is imagined by some critics to be the ideal taught in the *Gita*. Something illustrative of this harmonious blending of individuality and unity is what is vouchsafed as a fact by the experience of the world's greatest seers and sages. " I and my Father are One " is the eternal fact of the evolved supra-human or divine consciousness, described in diverse ways by the very fact of the inapplicability of our mortal words to adequately convey the meaning. An ' ethic ' preparatory to this End is the Vedantic Ethic.

We may describe the Vedantic life yet again in other words. The Ideal as At-one-ment with Spirit is possible only by the transcendence of the limitations of nature, identification with which is the cause of pain and evil. Transcending nature means getting above the three gunâs—sattwa, rajas and tamas—making up nature. Whence follows what Vedanta knows as true activity called inactivity technically—Sanyâsa in Sanskrit. The following verses from the *Gita* are clear on the point : " Setting aside all desires born of the mind (the lower self) O Partha, one who is satisfied in the Self by the Self, is called firm in resolve. Having no attachment anywhere whether yielding pleasure or pain one who is neither glad nor sorry is called firm in resolve. One, acting with the senses free from attractions and repulsions and subdued by the Self, and with his (lower) self under his control, obtains peace. He who renouncing all objects of desire acts without any attraction to them, without feelings of my-

¹ Compare MIND, No. 81, p. 70.

ness or self-centredness, obtains peace " (ii., 55, 57, 64, and 71). " He who sees inaction in action and action in inaction, is wise among men, is Self-united, and the doer of all actions. He whose all undertakings are free from desires (personal motivations) and (personal) schemes, whose action is burnt (rendered inaction) by the fire of Knowledge, is called a true knower by the wise. Content with whatever is obtained, above all dualities, free from envy, equal in success and failure, one though acting does not act. Him who being Self-united renounces all actions, whose doubts are solved by wisdom, who is full of Self, no action binds, O winner of wealth " (iv., 18, 19, 22 and 41). " Know him as the eternal renouncer who never hates nor desires ; he who has no dualities, O mighty-armed, is easily freed from all bondages " (v., 3). " He who acts what should be acted without attachment to the fruits thereof is the (true) renouncer (Sanyasi) and the (true) Self-united (Yogi), and not one who (merely) gives up his (religious) fires and actions " (vi., 1). " He who does not hate things of radiance, of energy or of dullness (of sattwa, rajas or tamas in predominance) when present, nor long after them when absent ; who, seated as unaffected, is unshaken by the qualities (stated above) ; who, saying to himself, " the energies (gunas) of nature work," stands apart immovable ; who is equal to pleasure and pain, and self-reliant ; to whom a lump of clay, a stone and gold are alike ; who is the same to lovers and haters ; who is firm and balanced in praise or blame ; who is the same in honour and ignominy, the same to friend or foe, who has renounced all (personal) undertakings ; he is said to have transcended the qualities (gunas of nature) " (xiv., 22 to 25). The attainment of the standpoint implied in these verses can properly be appreciated only by those who are already a little in the way towards such a life ; for others the whole may appear as a valueless and even dangerous doctrine. This cannot be helped ; for, an answer has value only with reference to the question which brought it into existence—a pragmatic test in the true sense, shall we say ?

It will now be easy to see our way towards the solution of the vexed problem as to what proportion of altruism to egoism one ought to show in one's life. Altruism and egoism are opposed to each other only so long as the individual cherishes the slightest idea of separateness from the world-life around him. The aim of Vedanta being the development of a universal impersonal point of view and the sharing of the universal life, the problem itself ceases to be. Sacrifice is the law of higher life, sacrifice of the mortal, temporary and phenomenal to the abiding Eternal Unity. Sacrifice, Love,

and Spirit are but three names or aspects of the same unity of higher life. Where the individual and the Whole are one in Spirit, altruism and egoism would remain merely as names devoid of the content they properly have in a "lower" sphere of existence. It is only in the course of one's actual life as a practical Vedantin that one can fully realise the spirit of its teaching; and no amount of word-polishing would bring out its nature in a way completely intelligible to one unaccustomed to its mode of thinking. The ideal of Vedanta is *not a thing* which we can walk up to, pick up and carry always about us; the Mukta or the fully-blossomed Vedantin implies a constant state of consciousness that ever is and that has become the very core of his being. He is no doubt in a sense an abnormal being since he is now what the average man will necessarily be in æons to come. . Hence the difficulty of understanding his full nature. But there is nothing queer or odd in his apparent external behaviour. The Vedantin may appear to us as a living paradox for the same reason that the world is a paradox for our purblind vision which, as it is, always sees things double. He is the fully developed Yogi, the beloved of the Lord (chap. xii.), the wisdom-seated (ii.), the Gnyani (vii.) that the *Gita* refers to in various places; for, the establishment of mental poise—yoga—implies as its basis this fundamental position of the attainment of the universal standpoint. This latter may appear impossible to us; yet we, as we are, have no right to deny its existence lest we should be displaying the vanity of our little-mindedness. It must be noted further that we do not go to the *Gita* to know our particular duties—for which even the *Gita* points to other authorities specially connected with a particular people,—but as to how, with what mental attitude, we are to perform what devolves on us as our duties that we may fulfil to perfection what is expected of us. It is a book for those who have done well their duties and seen the apparent endlessness of Samsâra or Karmic cycle so long as they are involved in it, and who therefore long to train themselves towards the higher consciousness wherefrom 'Samsâra' disappears and is realised as Mâyâ. It is, in other words, a treatise for the aspirant, the Mumukshu, one desirous of emancipation. This fact is important to bear in mind that we may appreciate fully the position of works like the *Gita* in philosophic literature. Humanity is like a mighty entrance-examination class for further higher activities in the infinite fields of Evolution around us which can be entered into only by first mastering the elementary lesson of the Unity of Life or Spirit.

Regarding the questions of God, Immortality and Freedom, these are more emphatically implied in the Vedantic 'Ethic' than perhaps in any other theory. What God means I have already explained in my paper on the 'Vedantic Absolute'. He, being absolutely the all in all for the universe that is Himself need not be specially invoked for ethical considerations. He is the beginning, the middle and the end of all beings in a way that we are not able even to imagine. He is not in Himself the god of the ordinary popular conceptions exhibiting a nature similar to our fleeting personalities, which nature is so assigned to Him by popular theologies, perhaps because it might serve as a progressive ideal for purposes of our progressive realisation. We are centres, so to say, in Him, reflecting His nature to the extent of our capacities ; or we may say even that He is manifesting His nature through us. We are real in proportion to our share of His Life and Consciousness : we are and yet are not in the ocean of consciousness that is really Himself. Of Immortality again, we have in Vedanta the conception rather of the Eternality of Spirit. Vedanta does not believe in a Self having a beginning but no end ; we may as well imagine a rope with only one end as think that the Self has a birth but no death. "Nor at any time verily was I not, nor you, nor these rulers of men ; nor verily shall we ever cease to be, hereafter " (ii., 12, *Gita*). We may distinguish, however, between two aspects of immortality which are implied in Vedanta. The one is what is involved in the very idea of the persistent nature of the Self ; the other is what is a consequence of the realisation of true Self-hood—the incipient or unconscious and the fully self-conscious immortality. The latter alone is what is sometimes looked up to as the End because of its essential implication in the Ideal. So long as one identifies oneself with one's fleeting personalities and hence is involved in the Karmic cycle, so long is one looked on as constantly dying and being reborn (of necessity),—at least that is how the incarnating mortal man feels. The Self becomes consciously immortal when it shares the Eternality of the One Spirit that it is by realising its true nature, when it passes above the ignorance-born travail of births and deaths. It is thus the felt immortality alone that is true immortality and not merely what is natural and of which we are unconscious. The whole ethic of Vedanta is what is based on the Eternality of Spirit, and hence we require no special mention of it except to show its technical meaning in the literature. The End therefore is not absolute extinction as some fancied in the term Nirvāna, but rather the perfect realisation of one's individuality ;

this, however, implies the 'contradiction' and 'transcendence' of the mere personality which the average man always identifies himself with. It is perhaps the confusion between the 'true' and the 'false' man that is the cause of the error of misunderstanding the true nature of Nirvâna which is an inconceivably high level of Consciousness. If the term existence may be used at all, Nirvâna alone is true existence.

The more interesting problem is the one of Freedom. Of the natural psychological freedom mention has already been made.¹ But the freedom, Mukti, liberation or emancipation of Vedanta means something very much more. It is the characteristic of the liberated Self because of his attunement of his will to the Will of Isvara or God, and hence of its unobstructedness in the Universe. It is the highest kind of freedom which a human being can express. A rough simile from our ordinary experience may illustrate what it may mean. Suppose there are two persons who love each other so much that they do not feel 'separate' from each other. Then what one wills may be done by the other with as much willingness and pleasure as if one willed it oneself. This illustration reproduces in a very limited way the freedom that a Mukta enjoys with respect to the divine order of things. Whenever we speak of freedom any notion that we form of it must always be a definite one, a freedom within limits imposed either by oneself or by others; such an idea as absolute

¹ In certain cases of moral decisions we seem to feel a peculiar psychical factor characteristic of a sense of self-determination. This factor is not a mythical or non-psychological element as some have supposed it to be, but the self itself as a higher centre of self-initiativeness transcending the given situation; because, the situation reveals a unique dual consciousness, one aspect of which is a sort of transcendental condition of the self asserting its own greater comprehensiveness. The experience is clearly one of evolved self-consciousness. The so-called will here is only another name for the dynamic nature of the self itself which has transcended the given situation. So long as we try to look for such a self in the "lower" situation we should be searching for it in the wrong place. Because some psychologists do not appreciate the peculiar transcendental condition of the self at the time, they do not see any way towards a psychological explanation of the situation. Further, the freedom of the will in this sense is not the same as capriciousness, but an embodiment of a higher law. To identify freedom with caprice is to confuse oneself. It is the self that can ever be free, and will is only the willing self. We must in cases of this kind distinguish the self from its situation physical or psychical which, being self-conscious, it always transcends. Such psychical states of tension are transcended by the perfected Self or Will since it involves no "opposition". Activity in such situations appears to be in the line of greatest resistance, because the self has to work against the determinism of the mechanism of a preformed situation.

freedom can mean nothing intelligible to us. We deal here with an explicit or manifested world, a world with dimensions and limitations. We must therefore understand freedom in relation to the universe in which we stand, and no better intelligible idea of it is conceivable than what Vedanta offers. Thus the Mukta is conceived as the liberated Self with reference to the necessity of Karma or unconscious external determination which once chained him to the wheel of cyclic appearances. Because, when the soul by its desires identifies itself with parts, it necessarily gets within the hold of the law which governs the parts within the whole and not the whole. When the Self realises its nature and sees its unity with the whole then the law has no hold on it. This is what is implied in the saying that true knowledge burns like fire the chaff of karmic bonds. "As the burning fire reduces fuel to ashes, O Arjuna, even so the fire of Knowledge reduces all actions to ashes (makes them unable to bind the doer)" (*Gita*, iv., 37). That is, the Self gets the absolute mastery of destiny which was hitherto holding it in thrall on account of its ignorance or Avidya. Liberation or Mukti, therefore, requires no other idea of freedom than what is implied in getting the mastery of Karma. It thus becomes clear that the mere natural psychological freedom which satisfies the ordinary ethical purposes is a mere appearance-freedom as contrasted with the real freedom which Vedanta postulates in the idea of a liberated Self.

We sometimes hear that the doctrine of Karma is against the possibility of any fresh initiative on our part, that it is against what we call our freewill. This position betrays a confusion. The problem is due to our taking Karma to be a rigid destiny and to our confusion between the Self and the not-Self. But what Vedanta means by Karma is not destiny but the result of the past actions in the present situation, both in the psychological and physical mechanism forming the environment into which we are born in the world. In fact the very being of Karma is possible only on account of a relatively free consciousness working on a previous occasion. As such it does not interfere with the peculiar self-initiativeness of the human ego due to its position and nature in the constitution of the world. What we make we can also unmake. It may, however, be true that Karma works more like destiny in the case of unevolved persons like savages and little children, but on the other hand it is very malleable in the case of an evolved ego. All that is meant is that Karma brings on certain situations which by Karma again are modifiable. In fact, Karma and freewill are not opposed to each

other when clearly understood, but form a set of relative notions, each being intelligible only in the light of the other. Karma is a law applying to the material or mechanism of a situation and does not bind consciousness or self. In the hands of an intelligent person karmic determination is no more rigid than the determination of physical external things by the operation of natural laws. Or again, to take an example from psychology, though past experiences determine our mental contents or material, still we are not hindered from making "ideal constructions"; we can even alter our habits of life if necessary. Psychological explanation itself implies the freedom of consciousness side by side with the determinism of the organisation. It may be that to one who knows more there may be facts which are inevitable karmically in their occurrence, and which he knows he cannot alter; still this need not and does not prevent him from working as much as he can against them. Though the odds be against us it is never our business to abstain from attempting to do what seems right to us. What Karma determines is not therefore the Self which ever is free, but the situation, and the situation stands only as fresh material for further reactions. As we are both 'material' and 'spiritual,' we are both 'determined' and 'determining'. Hence it is that in our aspirations after our ideals we need not reckon Karma as a paralysing and constraining force. Knowledge of the nature of Karma makes it our faithful servant as much as any other natural law. There is nothing to stand in the way of the real earnestness of the Self, for that is a 'ray' or *amsa* of God Himself.

There is still another similar apparent difficulty based on a metaphysical misconception. Freedom as I have already stated is intelligible to us only in relation to determinism. Of absolute freedom we have no other conception except that of the Absolute itself. Every attribute when made absolute becomes the Absolute, *i.e.*, it loses its ordinary practical or relative significance. Hence when we speak of absolute destiny involved in absolute omniscience, then since it is only with reference to the timeless, spaceless Absolute that we can think of absolute omniscience, such a destiny has too little to do with our appearance-freedom to be in any way conflicting with it. The Vedantin knowing by first hand that the explicit world is an "appearance" realises himself as absolute freedom itself though working in the limited world, and not, as we may suppose from our point of view, as having a (to him meaningless) freedom. We should not

confuse standpoints and raise problems which cannot and do not exist.

With this rough summary of the important features of the so-called Vedantic "Ethic," we may, in conclusion, attempt to see if the Ideal as put forward therein is not one which can stand a peculiar criticism which has been brought forward against ethical ideals in general, from the standpoint of certain metaphysical considerations of an absolutist nature. Ordinary ethical systems are pluralistic and they cannot be properly made objects of attack from the standpoint of an absolutely monistic metaphysic. The criticism is to the effect that no ethical ideal can stand the test of universality and comprehensiveness. The peculiarity of the Vedantic Ideal as distinguished from the other ethical ideals, as must have been apparent throughout our study, is just this very universality-and-comprehensiveness, due to its being based on a metaphysics which is 'monistic' or absolutist in its nature. We maintain that if the Vedantic ethical ideal be not universal and comprehensive, it is nothing at all. That is why it is only according to Vedanta the ideal that can be a true concrete-universal (for want of a better expression though it is a contradiction in our terms), which is just the desideratum of the other ethical systems. By a concrete universal I mean only just this universality-and-comprehensiveness itself. For, it is only in Vedanta that many-ness and one-ness are *not contradictories*, to put the matter in a paradoxical way. Since the Absolute alone is both concrete and universal, the Vedantic Ethic which takes the Absolute alone as Real postulates the same as the Ideal. But unlike other systems the Ideal is not merely ideal but realisable and realised every moment if we have but the adequate vision to see it. The true Vedantin knows that in the very limitations in which he is placed and is working, he to that extent is manifesting the Absolute that is everywhere and at all times; he is perfect in every sphere in which he works however humble the task may be, though we may not be able with our shortsightedness to perceive it. He has no duties and yet everything that he does he does as his duty. This possibility is due to the peculiar conception which Vedanta gives regarding what we know as the human Self, and to the nature of the Absolute itself which it postulates as the ultimate Reality. Absolutism well understood never undermines our morality; its function is rather to complete it.

V.—DISCUSSIONS.

ANALYSIS OF CATEGORICAL PROPOSITIONS.

I ASK leave to return very briefly to this topic, in order to answer some remarks in a Note by Dr. Bosanquet in *MIND* for January, 1914.

Dr. Bosanquet's Note may be divided into two parts:—

- (1) A consideration of the relation between my view of the analysis of Categoricals and Mr. Bradley's view.
- (2) A statement and evaluation of my view.

Dr. Bosanquet's position here may almost be summed up by saying that in his opinion I have put forward a view which is really Mr. Bradley's (*totidem verbis*), while at the same time Mr. Bradley's view is right and mine is wrong. That is, mine is wrong unless restricted to a special class of cases. (This is where the 'restriction' of which Dr. Bosanquet speaks, comes in.) The two issues (1) and (2) are distinct.

In order to settle (1) satisfactorily, it is necessary to ascertain precisely what Mr. Bradley's view is, and what mine is, and this is perhaps not a very easy task. When I first put forward in print what I will venture still to call my view—the view namely that the import of all propositions of the form *S is P* is Identity of Denotation with Diversity of Intension—I was very anxious to find myself in agreement with well-known writers on the subject, and in my *Elements of Logic* (1890) and an article in *MIND*, 1893 (pp. 441-456), cited passages from (among others) De Morgan, Mill, Mr. Bradley and Dr. Bosanquet, which seemed to me confirmatory of my analysis though not absolutely one with it. In *Elements of Logic* (footnote, p. 50) and *MIND*, 1893 (p. 451), I quoted from Mr. Bradley's *Principles of Logic* (pp. 28, 29) a passage very like that which Dr. Bosanquet now cites in *MIND* (N.S., 89, p. 102), and similarly passages from Dr. Bosanquet, and I was then under the impression that Mr. Bradley and Dr. Bosanquet would probably not object to the Identity-in-Diversity interpretation of Categoricals as formulated by me. The view which I was supporting seemed to me substantially in accord with certain pronouncements of these authorities. But as I have since explained in *Proceedings of the Aristotelian Society*, 1910-1911 (p. 166), though "I still feel that there is much similarity between what I try to say and what others have said . . . I now see that . . . the *exact* points of difference . . . are all-important, and, as far as my knowledge

and apprehension go, my analysis of *S is P* has fundamental differences from every other perfectly general analysis that any previous writer on the subject had formulated".

It does seem to me however that Prof. Frege's general Analysis of Categoricals (published 1892) as quoted—with approval—by Mr. Russell in his *Principles of Mathematics* (1903) is the same as mine. According to this, what a Categorical Affirmative Proposition—a Proposition of the form *S is P*—asserts is: Identity of Denotation (or Application—*Bedeutung*) with difference of Intension) (or Connotation or Meaning—*Sinn*). Frege gives as an illustration the statement that

The Morning Star is the Evening Star.

This account seems to be broadly similar to Mill's view that *WHAT-EVER* is denoted by (or has the Attributes connoted by) the Subject, has the Attributes connoted by the Predicate (*cf. Logic*, Book I., Chap. v., § 4, 9th edition, and *Examination of Hamilton*, pp. 497, 493, 4th edition). Here it is *WHATEVER* that secures sameness of denotation. Frege's analysis is however wider than Mill's by as much as *Sinn* is wider than Connotation, and it is this wider sweep which makes it, as I think, an absolutely general analysis, and universally applicable.

Perhaps my own view, as above indicated, of my attitude to Mr. Bradley's Analysis of Categoricals, may be thought not wholly divergent from Dr. Bosanquet's view of it, if allowance is made for the somewhat more favourable light in which I regard my own procedure.

I began (in 1890 and 1893) by quoting the strongest passage I knew of in Mr. Bradley's *Logic* in support of the identity-in-diversity analysis as I have understood it, and if what I then tentatively claimed for that passage was justified, this would be a most welcome confirmation of the view which I profess. But subsequently I could not feel sure that *any one* (until I became aware of Frege) did accept *precisely* my analysis. And as far as I know, it is not supposed to have occurred to any one except myself to make use of *S is P*, so analysed, as a fundamental logical principle.

I must, I am afraid, disclaim what Dr. Bosanquet thinks is "precisely my account of the judgment"—*viz.* (in Mr. Bradley's words): that "if you prefer to consider the identity of the subject . . . [rather than a connexion of different attributes] you read the judgment in extension". I do not in the least prefer the "identity of the subject" to "connexion of the differences"—in fact I hold that identity of Subject and Predicate in denotation (extension), cannot be asserted except as *identity in intensional diversity*. Correspondingly, connexion of different attributes can come off, only if they co-exist in some identity. Propositions of Science, cannot, any more than those of History, dispense with an 'identity' in

which the diverse attributes are at least conjoined. In fact it is often conjunction that suggests connexion.

In *S is P*, as I believe, the identity and diversity of Subject and Predicate are co-equal, and are both absolutely indispensable for significant assertion—one without the other is as futile as one blade by itself of a pair of scissors.

When (2) Dr. Bosanquet says (*MIND*, 1914, N.S., 89, p. 102) that the question in dispute between him and myself as to the analysis of *S is P* is one "of the very nature and meaning of Science, which consists in affirming laws of connexions of attributes" he recurs to the crucial criticism contained in the Note in the second edition of his *Logic*, where he complains that I deny "absolutely and in principle that one intension can . . . involve or imply another". This however as I have shown (*MIND* for October, 1913) is emphatically not my position. What I do deny (or at least doubt) is that in *every* proposition of form *S is P* a connexion of intensions is asserted such that intension *S* involves or implies intension *P*. (Of *S is P or not P* it can of course always be said that the intension of the Subject necessarily involves that of the Predicate.)

In the repeatedly quoted proposition:—

"My first penitent was a murderer"

can it be said that the intension of the Subject implies the intension of the Predicate in at all the same way in which, *e.g.*, equality of sides of a triangle implies equality of angles at the base? *Having equal angles at the base* FOLLOWS from *having equal sides* in all cases. But *being a murderer* does not FOLLOW from being any one's *first penitent*. Conjunction is no doubt affirmed in both cases, but necessary connexion only in the one, as far as I can see. Thus I hold that conjunction of intensions is indispensable in scientific as well as in historical propositions, but that necessary connexion or implication of intensions is explicit and seen to be inevitable only in those which are generally called scientific. *Whether* intensions are conjoined, is a different question from *why* they are conjoined, and also from *how* they are conjoined. *Is* it true that "Un giudizio è sempre la formulazione d'una legge"? Dr. Bosanquet says it is. I cannot see this. At any rate such formulation must be different in the case of historical propositions from what it is in the case of scientific propositions. But to admit this does not mean that my analysis is concerned *only* with what Dr. Bosanquet calls "irrelevant conjunctions"—that is, I suppose, conjunctions in which the intensions of *S* and *P* are not necessarily connected—(see, *e.g.*, pp. 530, 531 of my Note in *MIND* for December, 1913, in which I insist upon the prevalence and importance of uniformities of coexistence of attributes). Nor does it mean that I decline to regard systematic connexion whether in

the universe as a whole, or in restricted regions of it, as a *basis* (not a postulate) of all assertion.

Dr. Bosanquet ends his Note by saying that he has offered me in his *Logic* an eirenicon which I refuse to accept. What he thus offers is an account which, he says, "restricts itself to irrelevant conjunctions" of categoricals. This would in his view apply (but apply exclusively) to "such propositions as have for their subject an individual, or collection of individuals". The offer seems rather ironical, as (1) what I am interested in is a *perfectly general* analysis—an analysis of *S is P*, and (2) what Dr. Bosanquet would allow me here, in a restricted region, is what I would not accept anywhere. (I do not quite understand how far he would accept it anywhere himself.)

Either an irrelevant conjunction of intensions in *S is P* means first, merely that the intensions conjoined are not so connected that the one is seen or known to imply the other, or it means secondly, something different from this, something, I suppose, that is held to be more objectionable. But I do not know what this second meaning may be. In what other sense than the first is any actual non-scientific conjunction irrelevant (*e.g.*, in My first penitent was a murderer)? Dr. Bosanquet must, I think, allow that this and other historical propositions contain 'irrelevant conjunctions' in *this* sense. But (1) with such conjunctions thought certainly has to deal. (2) My analysis is not *restricted* to cases of this kind. (3) An analysis which requires necessary connexion of intensions is restricted to 'scientific' propositions.

The question is of a General Analysis of *S is P* propositions—an analysis which is applicable to every proposition of that form (such a general analysis cannot, of course, be exhaustive as regards particular species of *S is P* propositions). Is such a general analysis possible or not? If not, how account for the use, and usefulness, of the *S is P* form? Have propositions of this form nothing in common?—If on the other hand the form *S is P* is admissible, and for some purposes useful (compare $a = b$), what other analysis is offered which is of absolutely general application?

Dr. Bosanquet seems to admit that some propositions (*e.g.*, My first penitent was a murderer) do not present us with a necessary connexion of intensions in the same way as, *e.g.*, An isosceles triangle has the angles at the base equal. If so, an analysis which is applicable to cases of such necessary and obvious connexion of intensions as the latter, is in the present state of our knowledge not applicable to *all* propositions.—But the identity-of-denotation-in-diversity-of-intension analysis is I hold applicable to *ALL* *S is P* propositions, and very emphatically applicable in the case of 'scientific' propositions since the connexion of intensions being unalterable, they not only *do*, but *must*, wherever they occur, be conjoined in one and the same denotation. And in concrete scientific propositions the primariness of the *connexion of intensions* is clearly

brought out. In *e.g.* All isosceles triangles have the angles at the base equal, it is evidently the connexion of intensions (which carries denotational unity) that justifies the applicability to *all* denotations. We can never have examined all the cases included in a universal statement, but we can be quite certain that *if* equality of sides involves equality of angles at base, then *wherever* there is equality of sides, *there* there must be equality of angles at base; the two equalities must co-inhere: unless they occur in one denotation, they cannot occur as connected. On the other hand, when we find a conjunction of attributes, but do not see or know that there is any inseparable connexion between them, we may believe that further knowledge or deeper insight would reveal inseparable connexion—but we are, so far, not entitled to assert it.

I can only suppose that what remains as the difference between Dr. Bosanquet and myself as to the analysis of *S is P* is this, that he regards *S is P* as meaning in all cases (*i.e.* as involving, if we assert *S is P*) that the intension of *S* does actually imply the intension of *P*—in other words, *S is P* always formulates the law that intension *S* necessarily implies intension *P*—that in *all* propositions of form *S is P*, we are asserting that: *Intension S implies intension P*. This I cannot accept. And in such cases as: An isosceles triangle has the angles at the base equal: where the intension *S* does imply the intension *P*, the implication is in virtue not of the form *S is P*, but of the content or known 'intensions' of Subject and Predicate. Again, in any case in which *S is P* stands for a universal affirmative—All *R* is *Q*—All crows are black—it is in virtue of the sign of quantity *all*, that we regard the proposition as 'formulating a law'. What law can we suppose to be formulated by: My first penitent was a murderer, or This violet is white, or Janey has cut her finger, or The coffee is too sweet? No doubt we regard every event as caused, but what we wish to assert when we make statements is not always and exclusively laws of causation, proximate or remote, nor even laws of any sort. And if Dr. Bosanquet holds that in *every* Proposition of form *S is P*, what is asserted is connexion, as distinguished from *conjunction*, of intensions, is it open to him to insist (as I understand him to do) that the distinction between Categoricals and Hypotheticals (= Conditionals) is of great importance? And would he say that in negation—in propositions of form *S is not P*—it is only necessary connexion of intensions, and not their mere conjunction, that is denied?

I am grateful to Dr. Bosanquet for affording me this opportunity of a further attempt to reach clearness of statement and a better understanding—also for the measure of generous approval which he gives to my suggestion that the form *S is P* should be adopted (rather than *A is A*) as representing significant assertion.

DR. ALEXANDER ON MIND AND ITS OBJECTS.¹

THE leading exponent of English neo-realism has lucidly expressed his basal principles in his reply to Dr. Bosanquet's Adamson lecture; I venture a few comments on Dr. Alexander's views as to the nature of Mind and its relation to its objects.

(1) It appears difficult to understand what is the exact significance of the "Starting point of realism," so far as the relation in question is concerned. "Mind and its objects," says Dr. Alexander (p. 5), "are connected together by the relation of compresence," where compresence does not imply "coexistence in the same moment of time, but only the fact of belonging to one experienced world"; *i.e.* apparently, since temporal coexistence is not implied, the special meaning of "compresence" here seems to be "*experienced*"; mind and object together constitute one whole—complex—world—which is an *experienced* world;—consciousness being then enjoyed, and the object contemplated.

But Dr. Alexander's further development of the meaning of compresence is not easily harmonised with this initial standpoint, for we have (p. 6),—"our compresence" (in this special sense which implies "experienced") "with physical things . . . is a situation of the same sort as the compresence of two physical things with one another . . . my consciousness of a physical object is only a particular case of the universal compresence of finites"; and the question here is: Can we speak of (a) "compresence of mind and object in one experienced world," and (b) "compresence of physical things with one another," and use "compresence" in both cases in exactly the same sense, unless we mean by it in both these instances nothing more than merely temporal coexistence? For in the first case experience—an experienced world—is the fundamental feature; and if this be then retained in the second case, we appear to be at once committed to some kind of panpsychism—which indeed seems to be Dr. Alexander's own ultimate position; for he would allow "a physical thing to know," though not to be a mind (p. 32); and while panpsychism is of course a tenable metaphysical position, it must, I think, be admitted that it confuses the more strictly epistemological issues. Epistemology is concerned in the first place with human knowledge, and if it be "legitimate

¹ "The Basis of Realism" (*Proc. Brit. Acad.*, vol. vi.).

always to say that a material thing knows" (p. 33), then it seems necessary to use in epistemology at least some term other than "knowledge".

(2) If on the other hand we reject panpsychism, it is difficult to see how "compresence" of mind and object, if it be really only one instance of universal compresence, can be anything beyond the simple temporal coexistence of these entities; and in fact Dr. Alexander says (p. 10) that "there is nothing peculiar in the relation itself"; after defining, *i.e.* compresence as specially implying experience, he adds that there is nothing peculiar about compresence in itself; and proceeds—"what is peculiar in the (mind-object) situation is the character of one of the terms, its being mind". But if the essential and peculiar characteristic of the mind-object situation be thus transferred, from the relation between these terms to one of the terms itself, what then becomes of their relation? What peculiar character can remain to it? Admittedly none whatever,—the peculiarity pertains to the mind; but since at the same time the relation is not abolished, there can remain to it in itself no other character than that of temporal coexistence, as between the special entity mind on the one hand, and its objects on the other. That is, the only meaning it appears possible to give to "compresence," is that which Dr. Alexander would minimise. if not entirely exclude.

(3) "What is peculiar" then, in the mind-object situation, is not the relation between them, but "is the character of one of the terms, its being mind or conscious" (p. 10); and here again there seems to be some difficulty in harmonising Dr. Alexander's various assertions.

Commencing with the most definite of these, we have (p. 14)—"It is clear that consciousness cannot be a relation"; the relation which does exist is the "togetherness" of consciousness (thus negatively defined) and object; this is the cognitive relation;¹ and in consonance with this (p. 24), "being known, or knowing, is a relation"; whence it at once follows that knowing cannot be in any sense the same as consciousness, and we have the curious but logical result that to know a thing, and to be conscious of it, are not the same;—knowing is a relation, but consciousness is not.

A further difficulty arises: "In the experience (p. 14) the perception of a table, the terms of the relation are the table and the perceiving consciousness. The relation involved . . . is neither the table nor the (perceiving) consciousness but their togetherness." Now the case is of course precisely similar, if for "table and perceiving consciousness" we substitute "proposition and knowing consciousness"; and then "The relation involved is

¹ But, as just noted, consciousness, merely as an existent fact, is also "together with" every other real existent, whether cognised or not.

neither the proposition nor the (knowing) consciousness but their togetherness"; but thus there are here *two* relations, since knowing is itself one—we have *i.e.* consciousness existing in the relation implied by "knowing consciousness," and also further, the relation of "togetherness" between consciousness, itself already thus related, and the proposition; and while knowing is a relation, perceiving is not.

The same criticism applies to the parallel statement (p. 20) "The mind is compresent with all the things it knows." Here (since, to repeat, knowing is itself a relation) there are obviously two alternatives;—"is compresent with" means either.

(a) The same as "knows" and then the assertion becomes tautologous; or

(b) Something different from "knows"; but in that case mind is of course compresent with all other reals without distinction whether known or not; the assertion, *i.e.* becomes too general in its application to be of any special value.

(4) Then, as to the nature of mind itself, Dr. Alexander's view is that minds are (like consciousness itself) also in relation to physical things, a relation such that in virtue of it "*mind knows things*" (p. 5). And the act of mind which apprehends the object is continuous with "the whole tissue of mental processes which, considered as a whole, *is the mind*".¹ But I think these two views really involve an implicit self-contradiction, inasmuch as by whatever name we may call the conscious subject—mind, ego, self—it appears to be unquestionable that it is characterised by something other than mere continuity—by what can only be described as an identity which transcends the change which may attend mere continuity in itself; and this essentially necessary identity must be wanting from any "*tissue of processes*" which, just in being elements in a temporal series, are all in themselves necessarily transient and fleeting. The subject which, *e.g.* knew a proposition ten years ago is to some extent and in some way (not merely continuous but) identical with the subject which knows another proposition at the present moment; but obviously, the mental processes of ten years ago have ceased to exist, even if we qualify this by admitting that they determine the character of present processes. Thus it seems to be quite impossible to say, with Dr. Alexander, both (a) that mind *is* merely this whole continuous tissue of mental processes, and also (b) that mind *knows*, in any real sense; for each assertion at once negates the other.

Then there is another way in which the self-identical character of the knowing subject cannot be an attribute of any tissue of mental processes merely as such; for not only is this essential identity in-

¹ Italics mine. I may say, to anticipate possible misunderstanding, that I do not question in the least the continuity of mental process as a psychological fact, nor that mind implies mental processes.

possible in the case of the transient processes of a *temporal* series, but it is also incompatible with those differences which exist between the *coexistent* processes which together constitute a mode or phase of consciousness or mind at any given moment. For any such mode being a complex of emotive, conative, and cognitive processes, we cannot say that this group of essentially different (though united) processes can, simply as a group, know, feel, or will ; here again, *i.e.* we cannot say both (a) that such a group of processes, merely as such, *is* mind, and also (b) that mind feels, knows, or wills. So that whether taken as a temporal series, or as an instantaneous group, we seem compelled to say—

(a) If these processes themselves are the mind, then the mind cannot really know, either physical things or other objects.

(b) But if mind knows, then it is something other than the continuous tissue of these processes ; and these results would hold, if for “ know ” we substitute “ experience ”.

(5) Dr. Alexander adopts a view which appears to be rather in favour at the moment :—

(P. 9) “ My mind is located in my body ”.

(P. 36) “ My mind is in the same place as my brain.”

(P. 11) “ The complex of experiencings¹ is always localised in the skull.”²

It appears to me that the consequences of this general position, if taken in any literal and not merely metaphorical sense, would appear to commit us ultimately to materialism (however refined that may be), in the sense that mind is thus at once necessarily reduced, like chemical or vital processes, to some type of atomic or ethereal vibration. For when we say that *e.g.* chemical action is located in a test tube, or digestion in the body, we mean ultimately, if we eschew mysticism, that certain physical entities move in a certain way : we cannot conceive of any other meaning here of the words “ located in ” ; location means definite space occupancy, and this is the seal of material entities ; so that to ascribe, in any literal sense, location also to mind is really to materialise mind, unless we are to revolutionise many of our fundamental terms.

And in addition to this general difficulty, there appear to be others ; for each mental process seems to be dependent on, or associated with, a special brain area, and must therefore be, if located at all, located in that area only, and not in the brain or skull merely at large. But, complex as mental processes are, still mind is somehow a unity ; and so the question arises : How is this local cerebral distribution transcended ? In order to conserve this characteristic mental unity, we must apparently locate the essential unified mind

¹ As distinct of course from cerebral processes.

² Apparently, too, Dr. Alexander would identify ego and mind (p. 35) ; “ The primary fact is that I, the mind, am compresent ”.

in some central brain region, like the soul of old in the pineal gland ; and in that case what becomes of cerebral localisation ? If, on the other hand, each mental process is located in its own special area only, what becomes of the essential unity of mind ?

Distributive cerebration on the one hand, and the unity of mind on the other, seem to render the location of mind in the brain quite inconceivable ; and other difficulties would lie in the facts (if accepted) of telepathy and personal immortality ; while finally, the physical brain in itself cannot be compresent with certain entities with which however the mind, though located in the brain, must obviously be compresent, *e.g.* with past and future events, and with timeless universals.

(6) But if consciousness is not a relation, what is its nature ? It is, says Dr. Alexander, "a distinctive property" (p. 2) ; "a peculiar quality distinctive of minds" (p. 28) ; the "distinctive character of minds" (p. 29) ; but the question must be asked, What kind of quality or property, and how differentiated from all other qualities, both of minds and non-minds ? Dr. Alexander's general position would seem to make any definite answer to these questions difficult. For though consciousness is not a relation, knowing is ; and therefore by parity of reasoning, perceiving, feeling, conceiving, thinking, are all likewise relations ; and therefore they cannot, singly or collectively, be the same as consciousness ; so that there would seem to be nothing distinctive, nothing plainly distinguishable and nameable, which consciousness can be. It is, certainly, "the distinctive character of minds" ; but mind is (p. 5) the "whole tissue of mental processes" continuous with the "act of mind which apprehends the object" ; and "process" and "act" necessarily imply some relation. So that when we consider any particular mental act such as thinking, knowing, or conceiving, it is very difficult to see what distinctive quality or property such an act can have other than what we intend to express when we call it "thinking," etc., taken together with the relation this admittedly implies ; nor would it be sufficient, in order to divest consciousness of all relational character, to say that it is merely the class name for all mental processes taken together, since such a general term would still retain the relational character of its species. We should have to say that consciousness is some common and homogeneous quality distinguishable equally from every mental process in the tissue which is mind, and is, further, a quality such that, while every such process is or implies a relation, it itself is never a relation ; but is any such quality or property actually conceivable ?

J. F. TURNER.

THE LIMITS OF LOGICAL VALIDITY.

" . . . if it (*i.e.* inversion) is valid, I see no reason why it is not equally valid to infer from 'Every truthful man is mortal' to 'Some untruthful men are not mortal' (*A New Logic*—Dr. Chas. Mercier).

Formal Logic would be little studied were we dependent on certain of its critics for explanation of its principles. The author of the quotation given above, for example, seems to think that his statement disposes of the problem of inversion quite satisfactorily, for in *MIND* for April, 1914, he assures us that in his *New Logic* we shall "find the converse, the obverse, the contrapositive and the syllogism discussed with similar results".

The unit of knowledge and of meaning is the judgment; the judgment is also therefore the topic of logic. Here at once arises a difficulty for those not technically versed in deductive rule and method. Since symbolic formulæ are habitually employed to denote the various species of judgment, it is commonly assumed that the logical possibilities of, for instance, the formula S is P may be discussed without reference to any particular context. And the assumption is justified if the discussion be carried on by those who can take for granted the fact that a context is implied. But should there intrude upon the argument "one who has long ago climbed out of the dark and narrow pit of Traditional Logic," he is practically certain to misinterpret the significance of the judgment and to suppose it to consist of two terms arbitrarily linked together by a copula. The manner in which terms can be or represent "things" such critics of logic do not pause to consider.

The interrelation of judgment and systematic meaning has been so often and so well explained that further elaboration should be unnecessary. Students of logic must, however, be clear upon two points. First, a judgment has no meaning in itself; it is only as implied by knowledge, as part of a science, that it possesses significance. And to be true, it must first be significant. For instance, the statement that hydrogen and oxygen combine to form water is meaningless except as part of the science of chemistry. Should one desire to know its meaning and its truth he must study chemistry; there is no other way. Consequently a judgment is not the announcement of a sudden discovery that two 'things' are linked together. It is an inseparable unity of meaning which depends for significance and truth upon a whole of meaning, beyond itself, of which it is a part. *It is the distinctive character of formal logic, and this is the second point, that it regards this*

whole of meaning 'beyond' a judgment as systematic and accordingly treats it as a classification. The terms in a judgment can be defined only with respect to the classification of which they are part; and the truth of the judgment is simply part of the truth of the system which guarantees it. The proposition *S* is *P* is therefore the subject of logic only if it be a possible logical proposition. That is to say, it need not necessarily be 'true'—for the classification implied cannot be expected to be completely adequate to the facts of the case—but must at least be capable of being interpreted as a unity, the terms of which bear an understood relation to one another. It is not any *S* which is any *P*, nor is it any class *S* which is any class *P*; it is an *S* and a *P* that are somehow connected in a classificatory scheme which remains implicit and is taken for granted. It is a general defect in the teaching of logic that the propositions selected for discussion by students are usually instances of classifications so little scientific and so popularly vague that the importance of the systematic meaning 'beyond' the proposition itself becomes negligible and is accordingly forgotten.

This description of the judgment must not be supposed to confer a species of superiority upon the denotational aspect of logical inference. We cannot tell whether a particular judgment be the subject of logic or no until we know its meaning; further, the classification on which the assertion is based is a logical division in terms of meaning, it is, in fact, a single significant scheme. That extension and intension vary inversely is one of the superficial truths imposed on logic by the didactic limitations referred to. The summum genus of a scientific classification is not the term with greatest extension and least significance. It possesses no meaning at all apart from the system of which it is part, and as part of that system it takes for granted the entire meaning of the classification to which it belongs. Significance does not attach to the individual terms except as "in" the system. This being so, it is abundantly clear that a proposition to be capable of receiving logical treatment must refer itself to one classificatory scheme, and one only. The inference quoted at the beginning of this article is obviously an instance of illicit process; a further objection to it is that the premiss from which the conclusion is drawn is not, and cannot be, properly the subject of logic, for the reason that it attempts to refer itself to two utterly disparate classifications at once. It reads 'every truthful man is mortal' and, technically speaking, is quite meaningless. We may discuss truth and not-truth or mortality and non-mortality; but we cannot reason about both at once. The classification Dr. Mercier ultimately adopts—for he is forced to choose—is that of mortality and the qualification 'truthful' becomes at once obviously irrelevant. Consequently his inference should be:—

Every (truthful) man is mortal.

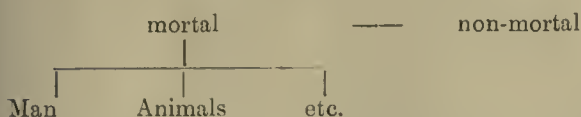
Some (truthful) not-men are not mortal.

What objection there is to this conclusion cannot be made upon the score of its logic.

This brings us to a wider aspect of the matter, for ultimately the importance of the classifications which constitute knowledge lies in their external reference. Knowledge is 'true' of facts, and increasingly true as it advances. Does each succeeding discovery partially invalidate not merely former conclusions but also the logic which dictated them? The answer to this apparently simple question seems to be the source of much confused thinking.

The usual criticism levelled at logic is that it seeks to substitute a rational criterion of truth for matter of fact. In a sense this is quite true and calls for discussion later; meanwhile it should be observed that between deduction and induction no choice is possible. The proper function of deductive logic is to ensure the systematic ordering of the meaning we assign, to test it is the business of induction. A research scientist formulates an hypothesis of some sort in order that he may thereby be enabled to correlate better the 'facts' of the problem which engages his attention. To test such an hypothesis he has usually to deduce its consequences for verification by experiment. He begins with a rough classification and a minimum of meaning and mends both as he proceeds. That this is his method is no condemnation of logical process. Logic asserts that, given the original qualification, certain consequences follow. That the consequences do not follow does not imply that logical inference is fallacious, it implies that the classification is inadequate. A further hypothesis suggests itself, the logical consequences are again tested, and so on. At every stage of the inquiry it is the knowledge rather than the logic that is insufficient. Indeed induction leans heavily on deduction for support; one of the chief utilities of the latter is that it makes clear the remotest consequences of any tentative assumption, and so indicates the points at which ideal consequence and actuality disagree.

The main purpose of deductive logic, stated negatively, is to secure us against self-contradiction. The typical form assumed by the principle of non-contradiction is that of dichotomous classification. Dichotomy may be said to be a challenge to us to make our meaning explicit; in all such cases we distinguish between classes in terms of some meaning which, assigned to one, cannot therefore be assigned to another. 'Middle' or doubtful cases, should we discover such, are no infringement of the general principle but simply serve to shew that our classification has not proceeded far enough. To take a concrete instance, the assertion man is mortal, inductively interpreted, implies that man as object is to be described as possessing certain qualities—a finite life history—in common with other living creatures. Formal logic as its contribution to the discussion points out that a classification under the general notion of a finite life history is implied. This classification is somewhat as follows:—



The logical criticism of this is that there is no genus under which the species mortal and non-mortal may be subscribed; consequently though one term may be described neither can be defined. From the point of view of knowledge and meaning this criticism amounts to an assertion that no positive content can be assigned to non-mortality. Dr. Mercier's argument may therefore be taken further. If from the proposition 'man is mortal' we infer the inverse 'some not-men are not mortal' the conclusion is unsatisfactory, not because the logic is doubtful but because we are compelled to use the term non-mortal as though it implied a meaning 'beyond' itself, whereas in fact it does no such thing.

There is a further criticism of logic and of scientific method, profounder than Dr. Mercier's, which calls for brief notice. The late Prof. William James used to accuse logic of attempting to substitute a rational for a real criterion of truth; Prof. Bergson, going one better, accuses science of 'intellectualist' distortion of reality. It is true that the original Greek logicians believed logical notions to possess a higher reality (or rationality) than events as such. From one point of view they were at least methodologically correct; they identified the real with the rational. Modern science, though its method be inductive, makes an assumption precisely similar. Assuming that events possess, or are instances of, some rational order, science sets itself to discover what that order is. So far as the quest succeeds, our knowledge becomes rational and relatively independent of mere descriptions of events. Prof. Bergson points out, and rightly, that our very perception of material objects as such is of this order. What he fails to see is that we do not depict as psychologically static what is psychologically dynamic. He therefore accuses the intellect of inadequacy to its problems, instead of examining its nature more carefully. For whenever we 'objectify' a mental content, even in perception, the construction or structure we give it as object is always so far logical rather than psychological, and is the achievement of the understanding as contrasted with mere associative memory. To confound the logical structure with the psychological event is as profoundly wrong as to suppose the logical structure to be more real than the event. It is none the less true that the descriptive structure science assigns to events enables us to control them to the limit of our present understanding. For this latter reason, if for no other, any philosophy must take account of scientific descriptions—events as understood—in considering the ultimate nature of reality. Scientific truth and psychological events in experience are not to be regarded as in one and the same plane;

the former is more 'true,' the latter is more 'real,' less abstract. But for the former the latter would be meaningless. *Science, then, does not shew as static what is essentially dynamic; it shews a psychological sequence of events to imply a logical structure*—within the limits of its defined area of application. All knowledge aims at substituting a logical for a psychological criterion in this way; to do so is the special differentia of knowledge. It is, of course, true that the poorer and less systematic the meaning we assign to any series of events, the more nearly is our judgment a mere description of their sequence and the more psychological is our criterion of truth. In this sense there is a closest relation between judgment and fact in that knowledge which is least systematic and possesses least significance. Perhaps this is why Dr. Mercier, founding his notions of reasoning on the practice of medicine, is so little able to understand the significance and utility of logic.

ELTON MAYO.

THE OPPONENTS OF FORMAL LOGIC.

THE remarks of Dr. Schiller and of Dr. Mercier in the last issue¹ call for a brief reply. They go far to justify the statement I have made elsewhere that, on the constructive side (which is the only side that really matters) the two opponents of formal logic cancel each other. Dr. Schiller accuses me of failing to appreciate Dr. Mercier's banter. I should appreciate it thoroughly, if it were merely banter, but the assumption which underlies the whole discussion is that the logicians, old and new, are playing a game while he (Dr. Mercier) is the one whose logic is the study of real reasoning. He does not claim to have formulated a better game but to have substituted a real logic for a sham one. That is the matter which calls for investigation and it is interesting to note that Dr. Schiller in no way endorses it. It is interesting to find, in the same issue, Dr. Schiller (provisionally) endorsing a claim which Dr. Mercier does not make, and Dr. Mercier, making an entirely different one. If Dr. Schiller intends to support Dr. Mercier I would suggest that he examine the question whether or no Dr. Mercier's logic is what it pretends to be—the practical logic applicable to every-day life to which the inquirer wishing to know "who stole the bacon" can go for guidance. If this claim be justified, Dr. Schiller's projected psychologic becomes superfluous. In agreeing that Dr. Mercier's logic is formal and also a game Dr. Schiller implies that the claim is unjustifiable. What is more important than the discussion concerning the precise value of formal logic is that a claim like that of Dr. Mercier should receive careful and critical examination.

To turn to Dr. Mercier, I am glad to note that the attack on Dr. Bosanquet is falling into the background. Dr. Mercier attempts to support himself by quoting from my article in the *Quarterly Review*. But, notwithstanding the fact that Dr. Bosanquet and I differ fundamentally on many important matters, nothing that I have written will bear the interpretation Dr. Mercier attempts to put on it. Dr. Mercier should remember that one of the duties of a writer in *The Quarterly* is to explain to those knowing little or nothing of the subject the broad outlines of modern developments. Such will need to be informed that there is a fundamental difference between much of the matter

¹ No. 92, p. 564 *seq.*

found in Dr. Bosanquet's book and formal logic of the Barbara, Celarent, type. All those pretending to know anything of logic will already be aware of the difference, and of the fact that the treatment of both branches under the title logic is not a peculiarity of Dr. Bosanquet, but is found in the work of nearly all modern logicians. To call Dr. Bosanquet's work spoof because he follows the general custom would be absurd.

With regard to the remainder of Dr. Mercier's remarks, I venture to suggest that he would obtain a firmer hold of his subject if he would try to appreciate the point of view of those with whom he has to deal. His reply to me, so far as I can discover, contains only two points which have any real bearing on what I have written either in this journal or elsewhere. One is the pointing out of a grammatical error and the other is the request that I express the argument *a fortiori* syllogistically. With regard to the first I must plead guilty. Minor slips and misprints have a way of creeping into my articles. But even Dr. Mercier is not infallible, unless the verb "cultfates" is one recently coined by himself. The second I can hardly take seriously. Surely Dr. Mercier is aware that the *a fortiori*, like every other argument, can be expressed syllogistically. In order not to distract attention from more important matters I am answering his question in an appendix.

The remainder of his discussion—his request that I write my arguments in syllogisms, his talk about my capitulating at Ulm.....is entirely wide of the mark. I am a logician, in the same sense that Dr. Mercier is a logician, namely that I have made a special study of the subject, and believe myself to have done original work of some value. I am also, I hope, a logician in the sense that, when I write about logic and logicians, I do so with a knowledge of the subject-matter and an understanding of the views of the logicians whom I criticise—even those of Dr. Mercier. I am not a professional teacher of logic and it would affect me just as little as it would him if logic were as valueless as Dr. Mercier (or Dr. Schiller) thinks. But the value that I place on logic is, I believe, fairly clearly stated in one of the articles from which he quotes. And to inform Dr. Mercier just how and why the question of formal logic affects me, its bearing on my work, would occupy too much space. He must take my word for it that I have nowhere and at no time put forward views on logic which imply an obligation to express the reasonings of every-day life and of controversy in syllogistic form. Whether any logician has done so is a matter on which I express no opinion, certainly I have not.

As Dr. Mercier questions my cogency of argument, I will try to repeat one or two of the statements more concisely, and, I hope, more cogently. My reply to Dr. Mercier's contention that inversion is invalid was that the particular argument he used had been answered in advance. My reply to Dr. Mercier's contention that

Dr. Bosanquet is playing a game of spoof is that the arguments used would prove everything spoof. Without troubling to bring the arguments under the recognised figures and moods, I do not think any one but Dr. Mercier would deny their cogency. Whether it is a personal peculiarity, or whether it is due to the "New Logic" I do not know, but Dr. Mercier seems to have developed an incapacity for understanding argument of any kind whatever.

Dr. Mercier repeats his claim that his "New Logic" is not a game in the same sense as the old one. In Dr. Schiller's sense of the word it is. Although I disagree with them, I am pleased to find that Dr. Mercier's views are obtaining an airing. It is not my duty here to review Dr. Mercier's work, but I should like him to try to appreciate the gist of the criticism I put forward in the *Quarterly Review*, namely that the same argument can be expressed in different logical forms, and that a change of the logical form does not make the reasoning any the less conceptual. He might then obtain some glimmering of the manner in which his attempt to confuse the sphere of logic with the sphere of life appears to those who regard logic as a conceptual science, and the reason why the term quackery is used to describe it. He will also begin to realise how the hotch-potch into which he throws the fundamentally different processes of deduction and induction depreciates the value of such ideas as his book does contain. I should like to add that my reference to the method of advertisement has nothing to do with Mr. Heinemann but is intended to apply to remarks in Dr. Mercier's Preface and elsewhere similar to those he has made in the discussion to which I am now replying.

H. S. SHELTON.

APPENDIX.

The argument a fortiori.

The argument *a fortiori*, A is greater than B, B is greater than C, \therefore A is greater than C is obviously not a syllogism. As it contains four terms no single syllogism can be constructed containing those terms as such. To express it in two or more syllogisms can be done in several ways. The following may not be the clearest but it is one way:—

SYLLOGISM I.

Major Premise. All (greater than B's) are (greater than things that B is greater than).

A is (greater than B).

\therefore A is (greater than things that B is greater than).

Restating the conclusion and making it the major premise of

SYLLOGISM II.

we obtain:—

All (things that B is greater than) are (things that A is greater than).
 C is (a thing that B is greater than).
 C is (a thing that A is greater than),
 or A is greater than C.

The syllogisms are Barbara, Figure I. The assumptions are the ordinary premises *a fortiori* and a form of the universal implied but not expressed in the argument. In putting an argument into logic, needless to say we place the copula where most convenient.

In the preceding statement I have assumed that, in stating the terms of a syllogism, the original statement may be paraphrased so as to give a convenient form. I think few logicians would object. I am fully aware that neither the transposition from the conclusion of syllogism I. to the premise of syllogism II., nor the statement of the final conclusion is an Aristotelian immediate inference. If, however, Dr. Mercier objects that his question is not answered the following is formally unexceptionable:—

Major Premise. All cases where, of three things, the first is greater than the second and the second greater than the third, are cases when the first is greater than the third.

Minor Premise. A, B, C, is a case where, of three things, the first is greater than the second and the second greater than the third.

Conclusion. A, B, C is a case when the first is greater than the third.¹

Dr. Mercier will object that this is complicated and is not the form that the mind naturally adopts in this kind of reasoning. I agree. The placing of such an argument in syllogistic form is pedantry, and moreover a form of pedantry to which I am in no way addicted. With Bradley I agree that the complicated major premise is not the real universal through which we reason, and I am perfectly willing to admit the existence of other logical forms than the syllogism. But what Dr. Mercier does not appear to realise is that the inference *a fortiori*, simple as it appears, assumes a universal which is not expressed and which the form in which I have put it expresses inadequately. To show the necessity of the universal I will state an argument which is *formally* similar to *a fortiori* but invalid. From A is next to B and B is next to C

¹ This very simple method has been pointed out to me by Mr. Alfred Sidgwick, who, needless to say, does not place much value on the game of formal logic. Like Dr. Schiller, however, his depreciation of formal logic is consistent and is not accompanied by an attempt to found another logic equally formal. If Dr. Mercier is interested to find a study of that part of reasoning (in my opinion the most important part) which is not, in the strict sense of the word, deduction, he cannot do better than refer to Mr. Sidgwick's *Application of Logic*.

it does not follow that A is next to C. The validity of the argument of the form of the *a fortiori* depends entirely on the relation asserted. This is the danger of multiplying logical forms, and the reason that the syllogism has so long kept its place against amateur attempts to found alternative modes. "New Logics" are so apt to miss the universals which are implied but not expressed in ordinary reasoning, and to confuse actually valid inferences with formally valid inferences. The *a fortiori*, though valid, is not *formally* valid. A logic, like that of Dr. Mercier, which attempts to displace the syllogism, is so liable to contain forms of reasoning which are accurate only by accident, that is the accuracy of which depends on the particulars of the argument rather than on its general form. While professing to carry out the "explication of what is implied in propositions," it does not really do so.

H. S. S.

THE CLASSIFICATION OF TERMS.

MISS KLEIN's discussion of terms is a very interesting exposure of some of the absurdities of the old Logic. That Logic can do nothing with a proposition unless the principal verb in it is 'is' or 'are'; and consequently the simplest and clearest propositions, of whose meaning no child could doubt for an instant, are tormented and transmogrified into grotesque absurdity, for no apparent purpose except to make them absurd. What conceivable advantage can there be in substituting for the admirably terse and transparently clear proposition, 'The Owl and the Oyster were sharing a pie,' such a monstrous abortion as 'The creatures known respectively as the Owl and the Oyster are individuals sharing a pie'? The abortion has, it is true, got the copula into its composition, but the transformation is not only unnecessary for any other conceivable purpose, but is also doubly and trebly unwarrantable. No immediate inference—and this is an immediate inference—is warrantable if the transformate contains anything that is not in the transformand. No additional fact or knowledge is warrantable or permissible. But this transformate assumes, without a shadow of justification, that the owl and the oyster still exist. It says they *are* individuals. Are they? The transformand does not say so. It says they *were* sharing a pie, and for aught it asserts they may now both be dead. The skin of the owl may be stuffed and its body thrown to the cats, and the oyster may have been eaten with pepper and with vinegar (much better than lemon juice). The transformate assumes also, what the original does not assert or hint, that the owl and the oyster were the products of special acts of creation.* There is in the transformand nothing in refutation of the Darwinian theory, nothing to lead us to suppose that the owl and the oyster were not developed, in the usual way of owls and oysters, from eggs. In early Victorian days it used to be considered humorous to put a simple statement into many long words, and our grandfathers would chuckle with delight at the verbal artist who should translate 'B was a Butcher who had a big dog' into 'The second letter of the alphabet was a purveyor of meat who possessed a large specimen of the canine race'; and it is now left for Logic to assume the cast-off garments of the out-of-date humorist, who was never very humorous. As humour it was poor stuff; but what are we to say of it as Logic? The transformation is a good example of the function of Logic as a device for the conversion of new-laid eggs into rotten ones.

The object of substituting this monstrous, cumbrous, unwieldy, and stupid paraphrase for the original is to get the copula into the proposition; and the fancied necessity of getting the copula into the proposition rests upon the false assumption of Logic as to the structure of the proposition. In order to save time and space let us bring the sharing into the present tense, and say 'The Owl and the Oyster are sharing a pie'. This is now, I suppose, but for the plurality of the Subject, a logical proposition, and its logical construction is *The Owl and the Oyster—are—sharing a pie*, by which we are to mean either that the owl and the oyster belong to the class of things that share a pie, or that the owl and the oyster are invested with the quality of sharing-a-pie-ness. We are supposed to contemplate the owl and the oyster on the one hand, and sharing-a-pie on the other, and to predicate the one of the other. I assert with the utmost confidence that we (I mean non-logicians, it would be very unsafe to assert what logicians do or don't do) do nothing of the kind. What the proposition brings to our minds is the owl and the oyster on the one hand, and a pie on the other, and what we contemplate is the *action* of the pair of animals on the pie. The true construction of the proposition is *The Owl and the Oyster—are sharing—a pie*.

When thus understood, all the difficulty of the plural subject, if there is any difficulty, vanishes. Even a logician, I suppose, would have no difficulty in apprehending the proposition 'All the owls are sharing a pie,' or 'Some owls are sharing a pie,' but when they are confronted with the proposition 'Two owls are sharing a pie' they are paralysed. Two is a quantity unknown to Logic, and no logician can admit that two owls, or two logicians—the difference is neglectable—can do anything. Not being a logician I find it as easy—easier, in fact—to picture to myself two owls sharing a pie than all owls engaged in the same operation. I have now only to take away an owl and substitute an oyster, and the mental operation is complete.

The propositions that baffle all the profundity of Mr. Bradley's mighty intellect are, to the new logician, childishly easy. When we have before us the proposition A and B coexist, we do not need to torture it in order to get, by hook or by crook, the copula into its construction. We do not contemplate A and B as subject and coexistence as predicate, and find ourselves nonplussed by the absence of a copula. What we see in the proposition are A and B, which we contemplate in their relation to one another of coexistence, and we then predicate this relation as existing between them; and for our purposes, that is to say for the purpose of clear statement of what we mean, for the purpose of intelligibility, for the purpose of reasoning, for the purpose of argument, it matters not whether we say A and B coexist, or A—is coexistent with—B, or B—coexists with—A, so long as the proposition we use is that most appropriate to the purpose of the argument. When we say

A and B lie east and west, the positions of A and B are compared with these two points of the compass, and the proposition predicates identity or parallelism of direction. That is the relation between them. Whether the relation is predicated as *A and B lie east and west*, or *A lies east of B*, or *B lies west of A*, must depend on the purpose of the argument. Abstractedly, it does not matter which we use, for all mean the same thing, and each is an implication of the others ; and each one of them is as perfectly and completely logical as the rest, although none of them contains the precious but quite dispensable copula.

Miss Klein's difficulty in other cases arises from the erroneous definition, that is given in logic, of a general term. Properly conceived, a general term is the name of a class ; and a class does not, any more than a corporation, necessarily include an indefinite number of individuals. No one but a logician would contend for a moment that the individuals included in a class must necessarily be indefinite in number. Any one but a logician would think at once of the days of the week, the months of the year, the crowned heads of Europe, the Dreadnoughts in the British navy, the lighthouses on the south coast, the past contributors to MIND, and would see at once that the individuals in a class may be perfectly definite in number. A class is characterised by the possession, by all the individuals in it, of a quality common to them all, and proper to them all ; that is to say, a quality possessed by every one, and not possessed by any individual in neighbouring classes. It matters not how many or how few the individuals of a class may be ; if they have this quality they are gathered into a class by possessing it. A single individual may be a class if it has a distinctive quality. If all the field-m Marshals except one in the English army were killed, the one left would constitute the class of field-m Marshals for the time being. According to this definition, the only proper definition, of a class, the nine Muses are a class, the paws of Miss Klein's cat constitute a class, her parents, the wheels of her bicycle, and the days of this week, each and all constitute classes ; and the names she gives to the classes are general terms.

Miss Klein discerns that the indefinite article is ambiguous, and that a monkey may mean a certain monkey, or may mean the class of monkeys, *i.e.* any monkey taken at random ; but she does not explicitly acknowledge, although she gives an instance of the rule, that the definite article also may have the same ambiguity. 'The gorilla' may mean the individual gorilla that I have in mind, or it may mean gorillas generally, as in *The gorilla is descended from the amphioxus*.

In Miss Klein's classification, the first division of terms is into general terms, which may be either abstract or concrete, and individual terms. This classification seems to me incorrect, and is certainly not exhaustive.

'General term' is, I think, the correct designation of the name

of a class, but 'individual term' is not, I think, the correct designation of the name of an individual thing. An individual term means one name, it may be of one thing, it may be of many things. The proper designation of a name that is applicable to one thing only is not individual term, but singular term.

Moreover, a division into abstract and concrete is not an exhaustive dichotomy, nor is it an antithetic couple, for there are many terms that are neither abstract nor concrete, and many that are both abstract and concrete. I know that in thus saying I am disregarding authority, but it is quite clear on careful examination that authorities have never distinguished between concrete and substantial, and have confused abstract with attributive. A concrete thing is, I submit, a thing which possesses qualities, or to which qualities may be attached or attributed; and the true antithesis to a concrete thing is an attribute, or attributed quality, while the true antithesis of concrete is not abstract but attributive. For we may contemplate a quality under two aspects. We may contemplate it as inherent in the concrete that possesses it, as when we contemplate a *white* horse or a *hard* steel, or as when we predicate of a horse that it is white, or of steel that it is hard. But we may, if we choose, abstract the quality from the concrete, and contemplate it in isolation from this concrete or from any concrete, as when we contemplate the whiteness of the horse or the hardness of the steel, or simply whiteness or hardness. The distinction is important in logic for several reasons. In the first place, it is clear that an abstract quality may itself possess minor qualities, and may be therefore concrete. We may speak of pure whiteness and of glass hardness, pure being an attribute of the whiteness and glass (glass-hard) an attribute of the hardness. It is true that we can contemplate pure-white snow and glass-hard steel, and thus it seems as if we can attribute minor qualities to attributes as well as to abstracts, but this is not so. We can attribute whiteness to snow, but before we can attribute pure-whiteness we must first abstract the whiteness, invest it with the quality of purity, and then attribute to snow the compound attribute of pure-white.

The attributive term is important in any Logic, but in the old Logic it is of supreme importance, because according to this logic every predicate is an attributive term, and the only form of proposition that ought to be admitted into Logic is that which predicates an attribute of a subject. This doctrine is stated flatly and positively in every book on Logic, and though there is no book on logic that does not in practice systematically disregard and ignore the doctrine, still the doctrine is there. In rational Logic the attributive term is important in this respect, that it is the only term that is restricted to the object place, and cannot form the subject of any proposition except a defining proposition. We cannot put 'hard' or 'white' as a subject and predicate of them

anything except their dictionary meaning. In this the attributive term is sharply differentiated from the abstract term, for abstract qualities can properly stand as subjects in propositions. We may properly say Hardness is a quality of steel or Whiteness is characteristic of snow. Hence one exhaustively dichotomous division of terms is into Substantial and Attributive.

This is not the only possible primary classification of terms. Of scarcely any classifiable group of things can it be said that there is but one valid classification and no more, though of most such groups we can safely say that there is one classification that is best adapted to a specific purpose. Classification is a way of contemplating things, and is effected by taking as a basis or fundamentum some quality, and setting apart in the mind those objects that have this quality from those that have it not. We may therefore, and we do, in contemplating a thing or a group of things, regard it primarily as a *thing* or *things* possessing a certain quality or qualities, and when we so contemplate we contemplate the thing or things quantitatively, as an individual thing or a class of things. But this is not our only mode of contemplation. We may, and we do, fix our attention not on the thing or things so much as on the *quality* or *qualities* that interest us at the time. In the former case, the names of the thing or things are Quantitative terms, and are either Singular or General according as we contemplate an individual or a class. In the latter, the names of the quality or qualities we contemplate are Qualitative terms, and are either Abstract or Attributive according as we do or do not contemplate them apart from the concretes that possess them.

We may therefore make two classifications of terms, equally comprehensive and exhaustive, both having their uses in Logic, but having different uses, and we may express them in one table as follows:—

Terms	{	Quantitative	{ Singular General }	} Substantial	} Terms.
		Qualitative	{ Abstract Attributive }		

Concretes drop out of this classification, because concrete is not quite the same as substantial. An individual and a class are both necessarily concrete, for they must have qualities in order to be known as individual or class; but an abstract is itself a quality, and though some abstracts have subordinate qualities and so become concrete, others have not; at least, as at present advised, I think not.

Anything that tends to break down the hide-bound absurdity of the old Logic is welcome, and therefore I welcome Miss Klein's classification of terms; but I do not see how it is possible to admit into Logic the quantities 'this' and 'that,' 'these' and 'those'

and yet continue to exclude 'most' and 'few,' 'the first' and 'the last,' 'others' and 'the rest,' and the great multitude of other quantitative signs with which our statements, arguments, and reasonings abound.

CHAS. A. MERCIER.

VI.—CRITICAL NOTICES.

Main Currents of Modern Thought. A Study of the Spiritual and Intellectual Movements of the Present Day. By RUDOLF EUCKEN. Translated by MEYRICK BOOTH, B.Sc., Ph.D. (Jena). London : T. Fisher Unwin, 1912. Pp. 488. Price 12s. 6d. net.

ANY one who has ever tried to translate Eucken into English will appreciate the difficulties which Mr. Booth has had to overcome. Speaking from some slight personal experience of these difficulties, I should say that, on the whole, Mr. Booth has been exceedingly successful in overcoming them. Rightly, I think, he has not attempted to secure literal exactness, but rather to render the sense in simple and intelligible English. Considering that Eucken's style is full of words for which there are no adequate English equivalents, the translation is very clear and readable, and gives a thoroughly trustworthy and faithful reproduction of the sense. It is only by permitting himself a good deal of freedom in the choice of words and the handling of sentences that a translator can reproduce in English the peculiar effect of Eucken's thought. Now and again, sheer lack of English equivalents has forced Mr. Booth to add the German phrase in brackets. This has happened especially with that troublesome new coinage of Eucken's 'das Beisichselbstsein,' with the adjective 'beisichselbstbefindlich'. I note the renderings 'self-contained' (p. 60), 'self-sufficient' (p. 79), 'absolutely independent' (p. 113), which are perhaps as near as one can get. The idea conveyed is that of a *stability* unshaken by varying circumstances. We catch something of the same effect in the phrase 'to possess one's own soul'. The German 'kraftgenie' is literally rendered 'force-genius' on page 368, but I doubt that this term conveys much in English. A curiously difficult term to render is 'Arbeit,' owing to the peculiar connotation which Eucken attaches to it. Most commonly he contrasts it with the inwardness and creativeness of 'spiritual life' (*cf. e.g.* p. 311). It then stands for an existence absorbed in mere doing, in 'soulless' production, whether it be in industrial labour or in scientific research or in the busy-ness of commerce; it means a dissipation of life into superficial, or as Eucken likes to say 'peripheral,' interests. It means the shallowness that comes from exclusive pre-occupation

with external things, with the control of material nature, be it in the laboratory or the workshop. The English 'work' which Mr. Booth uniformly uses hardly carries all these shades of meaning. Yet what other term is there? I have noticed very few actual errors of translation. On page 121, *note*, 'von vornen her' and 'von vornherein' mean not 'from aforetime,' but 'from the start' or 'at the outset'. If Mr. Booth had looked up the reference to Lessing's *Ernst und Falk*, he would have found that the term is applied to premisses uncritically assumed *at the start* of an argument. On page 216, near the end, 'include' reads like a slip for 'exclude'. And on page 64, *note*, 'zur Entwicklungsgeschichte Spinoza's' surely means 'a contribution to the history of Spinoza's development,' but not 'Spinoza's History of Evolution'.

Main Currents is a translation of the fourth edition of Eucken's *Geistige Strömungen der Gegenwart*. Among all Eucken's numerous works this is, I should say, the one which gives the best general survey of his philosophy. For, first, it covers a more comprehensive ground than any of the other books. There are chapters, *e.g.*, on Subjective-Objective, Intellectualism and Voluntarism, Idealism and Realism, Monism and Dualism, Metaphysics, Teleology, Civilisation, History, Society and the Individual, Morality, Free Will, the Value of Life, Religion, and several more. Secondly, many chapters begin with notes on the history of the philosophical terms under discussion—a field of study to which, in his younger days, Eucken has made valuable contributions. And, lastly, the substance of Eucken's philosophy is all here, making up for what it loses in systematic form by the emphasis gained from insistent iteration, as each chapter culminates in the demand for the recognition of a cosmic spiritual life which is both a *fact* and a *task* to man, both the real basis of our lives, and an ideal to be achieved.

The book thus affords a good opportunity for trying to estimate the value of Eucken's teaching and accounting to oneself for the causes of his influence. This influence is remarkable alike for its extent and for its limitation. On the one side we have such facts as his success as an academic teacher in drawing large classes of students, the numerous editions of his books, their translation into most European and some Oriental languages, their author's lecture-visits to the United States and to Japan, the honour of the Nobel-prize for Literature in 1908. On the other hand, we have the verdict of the great majority of philosophers, not only in Germany, but wherever Eucken's works are studied, that—as Prof. Bosanquet recently put it in the *Quarterly Review*—he has made 'no precise and serious contribution to philosophical science'. Eucken would no doubt reply (and it is a fair plea) that this shows to what extent philosophy has lost touch with life and with the spiritual needs of the vast mass of civilised humanity. The philosophers, in return, may either blame humanity for being deaf to sound philosophy, or justify the situation on the ground that philosophy is necessarily

specialised expert's work, that it appeals only to special temperaments and demands exceptional qualities, and that it has no message for the market-place. It is perhaps worth while to see what light an examination of Eucken's teaching throws on the paradox of the relation of contemporary philosophy to contemporary life.

Broadly speaking, Eucken's call to humanity to re-possess itself of the cosmic Spiritual Life in which it is rooted, is a reaction against the Naturalistic and Materialistic tendencies in modern life. These tendencies may not count for much among professed students of philosophy. In academic lecture-rooms they may be regarded as 'ein überwundener Standpunkt'. But, for all that, they are very powerful in a great deal of popular thought and literature, and, above all, their character undeniably is impressed on much of modern civilisation with its comfort, luxury, speed on the one side, its struggle for the bare necessities of existence on the other. Material objects may occupy one's mind too much, alike when one has too little of them, and when one has too much. The phenomenon, therefore, from which Eucken starts is the deep unrest and dissatisfaction which run through the modern mind, at least where it does not live simply on the surface, but reflects on the meaning and value of life in present-day conditions. This unrest comes, in part, from the mere complexity of life—we are distracted alike by the multiplicity of interests which appeal to us on one side or other of our nature, and by the multiplicity of needs within us which clamour for satisfaction. In part, again, it is the effect of theory, so far as we accept the scientific view of the universe as a huge mechanism for which human life, alike in its achievements and in its aspirations, has little meaning, and for which man is but a tiny insignificant fragment of an immense objective order. In Eucken this unrest finds utterance. He voices the longing of many for peace, assurance, stability. He formulates the demand for a conception of the universe in which the things of highest value shall count for most. He points to the Spiritual Life as the panacea for the spirit's ills. In him the pendulum swings back from the belittling, oppressive immensity of the material system to the inner life of thought and feeling as the real centre and focus of the world. We must recognise the alternating pulses of life : to be open, to go out of oneself, to surrender oneself to the endless variety of experience that the world has to offer ; and again to return upon oneself, to reflect, to unify, to synthesise, to draw from the spiritual life within the strength to master all experience, lest one be mastered and 'enslaved' by it. This is the ascending life-movement. It is not bound by mechanism, but uses it as an instrument. It does not merely take in a 'given' reality, it 'transforms' it by 'creative synthesis'. Its 'truth' is not a copy of reality, but an advance to a new and higher stage of reality. It does not disperse and lose itself into a multitude of interests and impressions, but gathers them all together, and with a unifying lift,

as it were, initiates a 'new man and a new culture' (p. 19). Two things are here of special importance. (1) So far from accepting anything actual as final, the upward movement demands a *break* with the old, a negation. A qualitative heightening, renewing, enriching of life is necessary—almost a conversion, a revival, a re-birth. And (2) this must issue not merely in a new *theory*, but in a new *life*. The character of the spiritual life must be realised and expressed in personal action (hence Eucken's 'Activism'), it must not be merely an object about which we speculate from a distance. The reality of the cosmic Spiritual Life, which includes and transcends both self and world, must be intuitively grasped ('noological' method) and expressed in sincere, intense, strenuous doing. 'Selbst-leben' and 'Weltleben,' merged in 'Geistesleben,'—within this framework Eucken's thought moves. Unmistakably the character of this thought is religious. Eucken's 'Spiritual Life' is indistinguishable from religion with the dogma left out. The well-known paradox of religious experience, *viz.*, the combination of the profound conviction that God's will is realised in all things, with the no less profound determination to realise that will in the fight against sin and evil, recurs in Eucken's paradox of the spiritual life as 'at the same time a fact and a task, a repose that can never be disturbed and an endeavour that cannot be satisfied' (p. 61).

Brief as this sketch is, it may yet enable us to solve our puzzle. What then are the causes of Eucken's influence? First, he is the centre of all who suffer in themselves the spiritual insecurity and hollowness of the age, who long for a reconstruction, and who hope that he who has diagnosed the disease, can also supply the remedy. Again, his forward-looking attitude ('the study of our own age is seen to lead beyond its own content into the future,' p. 479), his demand for a new heaven and a new earth to be brought about by human effort ('this idea of a spiritual civilisation is no mere matter of a new name, but of a new thing and a new task,' p. 306), strike responsive chords in widely different temperaments. He appeals to those whom Dr. Schiller once wooed in the name of Pragmatism as 'the young, the strong, and the virile,' with his promise of progress, of a world made better by human endeavour. He appeals to all, young and old, for whom the moral struggle is the dominant fact, and who construe life as a slow but sure victory of good over evil. His assurance of a better future within reach brings fresh hope to those who despair of the present. He has a message even for the disinherited of modern civilisation: 'to-day it is almost more a question of needing new men than new ideas, fresh and unspoiled individuals, upward-striving, mentally and spiritually thirsty sections of society' (p. 381). And, lastly, the religious temper of Eucken's thought enlists the sympathies of all who seek to base life on religion, and who emphasise in religion rather the element of personal experience than theological refinements of dogma. This

perhaps explains why those who have welcomed Eucken's philosophy most eagerly in England are to be found chiefly among Nonconformists. It explains also why the great vagueness of Eucken's concept of the Spiritual Life troubles those least who, seizing on its strongly religious character, translate it for their own use into the terms of Christian faith, and thus give it a far more definite content than is anywhere to be found in Eucken.

Now it is just this undeniable indefiniteness of Eucken's fundamental concepts that provokes the adverse verdict of philosophers. They complain, not without just cause, that pursuing the elusive concept of the Spiritual Life through pages and pages of talk about it, they grasp nothing in the end but a few generalities which are too vague for precise characterisation, and which, moreover, are well-known philosophical commonplaces. Nor do Eucken's numerous disciples and expositors throw additional light on the matter. At the crucial moment they all fall back on their master's favourite terms, like 'self-formation,' 'self-renovation,' 'self-heightening of life' without telling us in definite, positive terms in *what* this heightening, etc., is to consist. Eucken complains of the vagueness of the concepts used by Intellectualists (p. 84). Blank cheques, he says, which any one can fill in at pleasure! But is his own concept of the Spiritual Life any less of a blank? Mr. Booth in his 'Introductory Note' tries to explain the 'exact meaning' of the term (p. 10). But all he produces is a string of negatives. Bewitched by the spell of Eucken, he does not see that to tell us what the Spiritual Life is not, leaves us still wholly in the dark as to what it is in its own character.

Two apparently positive points might perhaps be adduced to weaken the force of this criticism.

(1) There is, first, Eucken's 'Activism': the subordination of theory to action, of knowing to doing, being, living. In detail this seems to mean two things. It is partly a protest against a false divorce of theory from life (*cf.* the demand, p. 229, 'to pass beyond the satisfaction of the intellect into whole-hearted alliance with the progressive forces of the universe'). It is also a reminder that even the best of theories falls short of the full reality of which it tries to grasp the essence. So far we may easily agree. A theory which loses contact with life, loses both its basis and its test. And Eucken is not the first to tell us that to know is not the same thing as to be, and that knowledge, even were it perfect, is not enough to satisfy the whole of human nature. But so far we have learnt little that throws light on the *kind* and *character* of the doing and living which theory is to subserve. And when we are told further that we are to deal, not with ideas or concepts, but with 'movements,' 'tendencies,' 'life-processes' which transcend the intellect; that philosophical systems are not so much refuted as outgrown (*e.g.* pp. 44 and 92) by the movement of life itself; that in the clash of contradictory theories conviction does not

depend on logical factors but on 'the content and force of the spiritual life, the spiritual concentrations, the life-energies' (p. 89); that the removal of contradictions becomes pressing only when our 'spiritual self-preservation' is at stake (p. 90), then we feel that an important truth is in danger of being overstated. 'Why did Luther and not Erasmus become the great leader of the Reformation (p. 92)?' Eucken's answer is: Because the reform of the Church became for Luther a question of spiritual self-preservation, fought for with an elemental passion, whereas the great scholar knew but did not feel or act. But is not another question more important? Why did Luther succeed where countless other agitators, equally passionate, would have failed? Does every sincere and fiery fanatic lead a Reformation? It was, surely, because Luther gave expression to a truer conception of sin and salvation. In short, there are passages in which Eucken appears to underestimate the importance of true theory for life. Against such a view, we must urge, first, that the striving after *true* theory, especially on the fundamentals of fine living, is not only itself a form of living, but even one of the finest; and, secondly, that the difference between a life which is spiritual and a life which is not, is—apart from weakness of will—mainly a difference of theory, *i.e.* of the working ideas and standards of value which our lives realize and embody. If this were not so, how could Eucken hope to make us live the Spiritual Life by publishing a theory of it? The mere spectator-attitude, that is agreed, has its obvious limitations, but the best theory is both rooted in life and returns into life to enrich and illuminate it. If true theory enables us to understand and appreciate the real nature of life, then it is not only an indispensable element in all 'life-movements,' but it is also itself a life-movement worth pursuing for its own sake. In effect Eucken admits this when he says (p. 72) that, before the facts of the inward life are fit to be used as a secure foundation, they must 'be classified and illuminated by the methods of Philosophy'.

(2) The second apparently positive point is the *religious* character of the Spiritual Life. But here, again, the question endlessly arises: What religion? And in vain we wait for an answer. True, Eucken is sympathetic towards Christianity, and from his little book, *Can We Still Remain Christians*, we gather that the religion of his New Jerusalem will be a kind of Christianity brought up-to-date. But *how* modified, once more we are not told, beyond a repetition of the familiar generalities about the Spiritual Life. We are instructed to separate the 'essential' in Christianity from the 'accidental,' but on what principle, or by what criterion, we are to do this, and whether the result will still be anything that anybody will care to call Christianity, all this we ask in vain. Philosophy, one gathers, is to help in preparing us for the new outburst of Spiritual Life which the future is to bring.

Indeed, Eucken is not unlike a second John the Baptist calling his generation to repentance. Only we scan the heavens in vain for any sign of a second Christ who shall remodel Christianity.

The reasons for the vagueness of Eucken's concept of Spiritual Life are, after all, not far to seek. The main reason is that a Spiritual Life which is to originate in a break with the present and the past, which is to be so new as to be different from all that we know, is clearly not predictable. No one can, in advance, describe its character or its details. And it follows from this, in the second place, that in the end all attempts to read the character of Spirit in the great 'life-movements' of the past are idle. For the theory of the necessary break denies, in effect, continuity of evolution, and with it all possibility of legitimate argument from past to future. The revelations of Spirit in past movements—if indeed we can be sure that these movements were spiritual—throw no light on its nature for the future. This view is especially worked out in the chapter on 'Thought and Experience (Metaphysics),' where we read: 'If . . . it becomes clear that historical life does not advance with a continuous and steady movement, but that the whole must continually be made the subject of fresh conflict, and that there must be a continual re-affirmation of the whole, then free action takes precedence of the idea of a historical process and *all possibility of a rational construction vanishes*'¹ (p. 157). One would think that all possibility of talking of a 'whole' had vanished as well! But if, indeed, Eucken has any right to speak of a 'whole' at all, if indeed it is true that the inner life exhibits 'in spite of all manifoldness, a permanent character, persisting through all changes and movements' (p. 52), then—unless this permanent character is unknowable—our grasp of it should not only count for much against our relative ignorance of the future, but it should also supply us with a *positive* ideal of action. Again and again Eucken tells us that Spiritual Life means the conversion of the temporal into a timeless order, but to the end he leaves the two points of view, that of a progress in time by a succession of breaks in which the whole is, as a whole, elevated and advanced, and that of the timeless reality of that whole, standing side by side without mediation. One is tempted to guess that he has adopted the former from Kant and the latter from Hegel, though the synthesis by which he has fused them together is so 'creative' as to deserve to be labelled by his own curious combination of adjectives 'positive and irrational' (cf. pp. 83 and 154).

I am not aware that Eucken is acquainted with the works of Bergson. He certainly does not refer to Bergson or quote him in this book. But it is not uninteresting, as illustrating tendencies of modern thought, to point out how much Eucken and Bergson have in common. They agree in making life and life-process

¹ Italics mine.

fundamental; in holding all genuine action to be 'free' and 'creative' in the sense that it cannot be 'deduced' or anticipated; in depreciating the 'mere intellect' because it cannot grasp reality 'from within,' because it moves in universals and abstractions, because it tries to force all particulars into the 'rigid pattern' of its general laws, thus destroying originality and individuality (pp. 84, 85). And we are strongly reminded of Bergson's *durée* when, in the chapter on 'Free Will,' we read that Determinism, in making us the absolute slaves of fate, 'involves the disappearance of the *present*, in any real sense of the word. When there is no demand for decision, no tension and no room for original action, when the future grows out of the past like a flower out of its bud, then there can be only the shadow of a present' (p. 437).

This juxtaposition of the two foremost thinkers of the present day in Germany and France inevitably turns one's thoughts, at the moment of writing, to the war between these countries, the more so as Eucken, in the Preface which he specially wrote for this translation, offers his book as a reminder to European nations of the 'great common tasks by which they are raised above and beyond every national and political difference,' and which will 'counteract the lamentable and dangerous hostility of great nations to one another'. The summer of 1914 supplies an ironic commentary on the words which Eucken wrote in the summer of 1912. There is no word about the relation of war to the Spiritual Life in the body of the book. Yet the question is not so simple as to be settled by silence. General Sherman, who knew war from the fighting-side, said 'War is hell'. Walt Whitman, who knew war from the hospital-side, said 'God damn the wars—all wars: God damn every war: God damn 'em! God damn 'em!' On the other hand Sir Ian Hamilton is reported to have said that 'neither poetry, music, nor religion can long outlive war'. Anyhow, our newspapers—*voces populi*—have no doubt about the spiritual character of war. With hardly an exception they have been telling us that war is an affair of the Spirit, of which the clash of armies and armaments is but the outward expression. Or to look deeper: If it is true that 'in the white heat of war Self will burn and Greater Love rise from the ashes,' if it is true that 'a soul which has never known pain, like a nation which has never known war, has no depth of being,' can we refuse to consider war as a profound spiritual experience? Perhaps, when peace is with us again, the apostle of the Spiritual Life will trace for us the working of the Spirit in this grim reality. We shall understand better, then, what he means by Spiritual Life.

R. F. ALFRED HOERNLÉ.

Problems of Science. By FEDERIGO ENRIQUES. Authorised Translation by KATHARINE ROYCE, with an Introductory Note by JOSIAH ROYCE. Open Court Company. Pp. xvi + 392.

THE present work is a translation of the *Problemi della Scienza* of Prof. Enriques, the eminent Italian mathematician. It covers very much the same ground as Poincaré's three books on the philosophy of science. It may be divided into five parts; the first is a general introduction and explanation of the author's position (which he calls Critical Positivism), the second deals with Logic and its applicability to the real world, the third deals with geometry, the fourth with the classical mechanics, and the last with electrodynamics and the alterations which it has entailed in the mechanics of Newton. The whole work gives an impression of very deep and wide learning; Prof. Enriques draws his examples not only from the subjects in which he is specially an expert, but also from economics, jurisprudence, and biology. Unhappily the style is very heavy, and one can never forget for a moment that one is reading a translation from a foreign tongue. The book is also disfigured by an immense number of notes of exclamation, a stop which may safely be deleted from all works except novels. A final word of general criticism is that although this book is of considerable length it deals with so many difficult and important subjects that the argument is obscure through its condensation even to persons familiar with the problems under discussion; to others it must often be quite unintelligible. In some few places Prof. Royce has helped the reader with explanatory notes, and it could be wished that these were more frequent. I do not think that the obscurity of some passages necessarily indicates any confusion in Prof. Enriques' own mind; it is often merely due to the fact that he has treated these subjects in special articles elsewhere and now has to condense his arguments so much that it is difficult to follow them.

The first part, which introduces us to Critical Positivism, is largely occupied with a defence of the philosophic doctrine of relativity. The argument is that wherever we apparently meet with an absolute term or an absolute distinction we really only meet with something that occupies a higher position in a series than some corresponding term with which we have previously dealt. Since the great difficulty of the doctrine of relativity is its ambiguity it is a pity that Prof. Enriques has not considered the question quite generally, but has mainly treated special cases of supposed absolutes and tried to refute their claims. For instance, he discusses the claims of certain problems (like the squaring of the circle) to be absolutely insoluble; of justice to be an absolute duty; of actually infinite numbers, etc. His conclusion is that the problems are only insoluble relative to certain means (*e.g.*, the use of a rule and compass); that justice is only absolute in the

sense that it is the ambiguous name given at any moment to the highest duty recognised at that moment; and, so far as I can see, that transfinite numbers are either meaningless or mere symbols for the indefinite prolongation of certain finite series of acts. I need scarcely say that many of his particular observations are very valuable; there is a pronounced tendency in the human mind to think that any series must have a last term, and this has enabled philosophers to score easy triumphs over the actually infinite by defining it as the last term of an endless series. But on the other hand I cannot see precisely what general conclusion can be deduced from the discussion of a number of claims to absoluteness of such very different kinds, and further I cannot accept all Prof. Enriques' special arguments. For instance justice does not seem to me to be simply the highest duty recognised at any given time; it has a definite content of its own. We may certainly both (a) learn more and more clearly what that content is, and (b) learn more clearly to what this quality justice applies. And these two processes will generally proceed *pari passu*. But this in no way affects the absoluteness of the duty to be just in the only two senses in which any one maintains it, *viz.*: (1) that no action is right that is not just, and (2) that justice is a perfectly definite quality with an absolutely determinate nature whether or no we have fully analysed that nature and clearly seen precisely what is and what is not just.

Again I cannot see precisely what Prof. Enriques' special argument about the actual infinite is supposed to prove. He says that an actual number cannot be defined as the last term of an infinite series, and further that mere consideration of a series by itself will never prove that it has a limit. (I do not know if he means also to imply that you cannot tell whether an infinite series has a last term by considering it alone.) All this is perfectly true, but I cannot see what bearing it has on the reality of infinite numbers, or how it shows that 'the word "infinite" cannot be applied to any given number or quantity' (p. 15). At best it would show that the concept of a *greatest* infinite number is unsound. And the reference here to the difficulties of Mr. Russell's class *w* seems quite irrelevant. As Prof. Enriques is most unlikely to be under any of the common illusions on these questions I can only say that he seems to me to fail to make clear what exactly he is trying to prove. I am the more convinced of this by the fact that he sometimes speaks as if he believed in the actual infinite, *e.g.* he speaks of a logical analysis being in terms of an infinite number of elements. It is true that he says that these cannot be supposed to be all *given*; but, so far as I can see, 'given' merely means 'thought of in succession,' and the question whether this be psychologically possible seems irrelevant to the actual number of elements.

Prof. Enriques is also concerned to show that there is no absolute

distinction between the subjective and objective. Here he is not referring to the distinction between a mental act and its object (though he sometimes seems to be) but mainly to that between the various processes by which various minds reach a result and the common result. I have two criticisms to make here. (1) His argument seems to be that the subjective can itself be made the object of scientific knowledge:—it helps, *e.g.*, to explain the minimum of cases when scientific predictions are not accurately fulfilled. This is true, but surely two distinct things—mental process and ascertained fact—do not lose their absolute distinction because they are alike in the one respect that both are data for science. And (2) this example shows how difficult it is to collect from Prof. Enriques' special arguments what general principle of relativity he is trying to maintain. If we generalised from this example we should infer that he held that there is no absolute distinction between anything and anything else. And this is either too obvious (in the sense that nothing differs in every respect from anything else) or too absurd (in the sense that there are no definite differences in the world) for any one to maintain.

We now pass to Prof. Enriques' treatment of logic. This is praiseworthy in its insistence on the importance and validity of a system of genuinely formal logic. There are also some excellent remarks on the nature of definition. The definitions of Euclid are not real analyses but serve the same purpose as geometrical models. Fundamental notions can only be defined in this way, or else by postulates. Even nominal definitions are not mere shorthand abbreviations; they mark definite and important groups of entities in a science which are worth treating in detail for their own sake. Just as you may start with elements and axioms and build up complex entities by nominal definition; so you may be given in experience something which you find you can best treat by assuming it to be a complex built up from certain elements according to certain laws. This is the case in geometry where what is given is lines and surfaces and we find it conducive to our reasoning to regard these as complexes of points. Prof. Enriques thinks it necessary to deal especially with the case where we are led to assume an infinite number of points (as *e.g.* the continuity of lines and surfaces forces us to do). His difficulty, as I understand it, is this. This kind of hypothetical analysis of what is given into entities connected by laws is only helpful if it enables us to suppose that the fundamental entities *might* be given to us in experience and we might build them up by nominal definitions into the complex entities that actually *are* given. Now when your analysis leads to an infinite number of fundamental entities you could not suppose these to be all given in any experience. Prof. Enriques' solution is that as we can know things about any entity of a class without needing to be acquainted with each one separately the infinity of their number need not trouble us. This is undoubtedly

the right type of answer to all psychological difficulties about the infinite.

There are some interesting reflexions on a subject not often touched by logicians, *viz.* the applicability of the Laws of Logic to the existent world. Prof. Enriques concludes that the necessary condition is that there should be great relative invariance in the existent world; logic assumes strict invariance, and, so far as the existent world departs from this, logic becomes less and less applicable to it. I am not perfectly sure that I understand this; but it seems to mean somewhat as follows. Logical operations and deductions are performed on timeless entities, and the existent world is in time. If you take a number of terms and relations in the existent world at a given moment and deduce something further about them by logical reasoning your conclusions will be rigidly applicable to the same things at the given moment; but it will not be rigidly applicable to the things called by the same name and treated for ordinary purposes as the same at some other moment unless they have remained absolutely unchanged during the interval (or, of course, unless they change in accordance with some law which, while it contains time, contains no particular time). There are however certain passages which suggest a much too subjective view of logic. Thus we are told that 'the formal requirements of logical representation express only a psychological fact . . .' and that 'the psychological associations and dissociations which fall within the realm of clear consciousness and volition constitute the fundamental operations of logic'. With the view that these sentences imply I should wholly disagree.

The part of the book devoted to geometry is of great interest and importance, but is often obscured by too great condensation. Prof. Enriques' main effort is to correlate the axioms of projective geometry with sight-space; those of metrical geometry with the space of active touch; and those of Analysis Situs, which underlie both, with general sensibility both of the skin and of the retina. He of course recognises that in ordinary geometry the data of the various senses have all contributed to the 'smoothing act' of the crude spaces of each. This is a very interesting attempt which, as he says, needs a mathematician who is also a psychologist and a physiologist to work it out. He is not able to go enough into detail for me to judge how far he has succeeded.

It is interesting to note that the author holds that the hypotheses of Euclidean and ordinary Non-Euclidean geometry differ more than conventionally, and that the question of their applicability to the existent world can be treated experimentally without a logical fallacy. On the other hand he seems to think that no possible experiment could settle whether the geometry of the real world is Archimedean or non-Archimedean. It would take too long to enter into this question here; much depends on what is meant by the very ambiguous word 'conventional'.

There are two chapters on Mechanics. The first deals with the notions of the classical mechanics. It sees in their comparative success a further verification of Euclid. There is an interesting discussion on time, mass, and the Newtonian laws of motion. Prof. Enriques rejects absolute space and time, and points out that the notion of mass, though it can be reached in Mach's way, can also be reached in several others which do not assume the Third Law of Motion. Force, again, as something about which our muscular sensations tell us, has as good a right to be taken as a datum of mechanics as have the data of any other sense. Prof. Enriques saves Newton's second law from tautology by substituting the law that the *incipient* motion of a particle relative to any frame of reference is in the direction of the force acting on it at that moment, and proportional to its statical measure at that moment relative to the frame in question. He then has to add a law to enable us to pass from incipient to other motions. This is substituted for Newton's first law, and here we have to notice (1) that a special frame of reference has to be chosen (*viz.* one defined by the fixed stars), and (2) that this law has been proved by the electron theory to need modification for velocities large in comparison with that of light.

The whole book is worth reading and may be recommended to those who are pretty familiar with the problems with which it deals.

C. D. BROAD.

Elementary Logic. By ALFRED SIDGWICK. Cambridge University Press, 1914. Pp. x, 250. Price 3s. 6d. net.

"LOGIC is here treated (1) as a carefully limited subject to get up for an elementary examination; and (2) as a free study of some of the chief risks of error in reasoning" (p. viii). The book is accordingly divided into two parts entitled "The Old System" and "The Risks of Reasoning". It would seem, at first sight, difficult or even impossible to harmonise the two aims which Mr. Sidgwick sets before himself. The necessary bond of union, however, is supplied by the conviction that the traditional Logic is a danger to all who think as well as a nuisance to the few who have to pass examinations in it. In this conviction Mr. Sidgwick is at one with Dr. Schiller. As he himself rather warily expresses it: "At the present day we may safely admit that the best reason for knowing something about the old system is in order to see exactly why modern Logic [by 'modern Logic' Mr. Sidgwick means pragmatic logic] has been driven to make certain far-reaching departures from it" (p. viii). In plain words, one of "the chief risks of error in reasoning" lies in the danger of succumbing to 'ideals' of reason-

ing which, originating in mental inertness, are taken advantage of by traditional Logic so as "to gain a reputation for wisdom at small expense in trouble" (p. 168). Since the function of real Logic must be to guard against real fallacy, it cannot do better than begin by scrutinising that most stupendous and long-lived fallacy of all, which has so artfully appropriated the title of Logic¹ to itself. This should be a sufficient answer to the unintelligent complaint that pragmatists while attacking Formal Logic 'have given us nothing in its place'. What the complaint really amounts to is that they have not given us something *equally Formal*.

Mr. Sidgwick's frank avowal of his attitude towards the ideals of Formal Logic gives him a very real advantage in helping the prospective examinee to 'satisfy' the examiner. Since he refuses to make himself responsible for the pretensions of Logic, he is under no obligation to make it appear more certain, consistent or useful than it really is. Hence the teacher who makes use of this book need no longer find himself compelled *both* to lay down dogmatically that the 'Logic of consistency,' as being the foundation of all reasoning, can itself need no extraneous support, *and* to stave off the unanswerable objections or 'difficulties' of the inquisitive learner by declaring that they receive their quietus in some undefined region of 'metaphysics' where, to the duly initiated, all puzzles are made plain. The Logic which the student must expect to be examined in is neither a science nor an art nor even a useful dodge, but only a game—and a very dull game at that (pp. 1-3). So long, however, as a knowledge of its 'rules' is a stepping-stone to a university degree, it has a real, if strictly circumscribed, practical utility.

The consistent, cold-blooded treatment of Logic from this severely practical standpoint in itself constitutes a most effective criticism of the superstitions enshrined therein. The student who carefully 'gets up' Part I. of the book, even if he does not go on to Part II., should not merely be able to pass with *éclat* his examination in Elementary Logic; he should also pass through the ordeal without sustaining any intellectual damage. If he is really intelligent, he will even derive actual benefit from his studies. If he is further gifted with a sense of humour, he will discover that there is, after all, a considerable amount of enjoyment to be got out of the subject. A few quotations from Part I. will illustrate Mr. Sidgwick's irony in teaching the traditional Logic. His merciless exposure of its futile artificiality saves the earnest student the trouble of trying to find in the subject a meaning which is really foreign to its aims.

¹ "As a help against confusion of the two points of view I shall adopt the plan of spelling the traditional Logic [also Logical, Logically and Logician] with a capital letter and the modern logic with a small one. This seems at any rate a less offensive mode of distinction than by giving the old Logic the doubtful dignity of inverted commas" (pp. viii-ix).

"All that matters from our present point of view is that the division into Subject, Copula and Predicate, is one of the rules we have to abide by. In order to get material for playing the game, propositions must be regarded as made up of two 'terms' (Subject term and Predicate term) *connected by a copula*. It is assumed that there are in existence a large number of words unattached, whether ranged in order as in a dictionary or floating about casually in our minds. You can take any two of them and join them together with a copula . . . and then you have got a proposition, whether true or not. Out of propositions so obtained you can then proceed to construct syllogisms by following certain further rules to be presently explained. To analyse an ordinary sentence and express it so as to show its two terms and its copula is called 'putting it into Logical Form' or 'showing its Logical character'" (pp. 4-5).

"So far as Logic is to be not merely a game but a real help in distinguishing between good and bad reasoning it cannot afford to ignore the problem of translating from ordinary language into the forms; an inquiry which involves some consideration of the 'matter' asserted, and therefore of the intended meaning. It cannot altogether ignore this problem, but it can and does feel reluctance in pressing the inquiry. To ignore it altogether would be to confess its own inapplicability to actual reasonings; to pursue the inquiry is to depart from its own fundamental assumptions; and so it steers a middle course, neglecting the difficulties just so far as common sense can be persuaded that they are negligible. This is a position of unstable equilibrium, and the inevitable fall has already begun" (p. 67).

"Just as Logic has to minimise the difficulty of distinguishing between the 'simple' and the compound proposition so it has to deal lightly with the distinction between one proposition and 'another'; and therefore it takes difference of form, rather than of meaning, as the test of 'otherness'. . . . I assume that the reader at present wants to know what processes are traditionally called Immediate Inference, apart from the question whether the name is satisfactory. In general they may be described as *the processes of translation which are still possible after Logical Form has been reached*" (pp. 85-86).

"It must often strike a beginner in Logic as unsatisfactory that as soon as he has mastered the intricacies of the Categorical Syllogism, and has learnt that all assertion can be expressed in the A E I O forms, he is forthwith introduced to another form of assertion and another kind of syllogism [*i.e.* the Conditional Syllogism] with a different set of rules" (p. 64).

After quoting Mr. Joseph as saying "An equivocal term is not a term without a meaning; it is a term with more than one meaning," Mr. Sidgwick makes the comment: "But this is true only of terms considered apart from their use in a given assertion. For if,

owing to an ambiguity in the term 'Y,' the statement 'X is Y' admits of being accepted in one sense and rejected in another, how can we regard *its* predicate term as having now *any* actual meaning? A term which has 'more than one meaning' in a given statement is, for that very reason, 'a term without a meaning,' so far as that particular statement is concerned. It will hardly be maintained that a statement whose interpretation is doubtful *means more* than it would otherwise" (p. 108 n.). The ambiguity here exposed in the expression 'more than one meaning,' with its fatal effect on the meaning of Mr. Joseph's innocent-looking dictum, itself affords a capital illustration of Mr. Sidgwick's doctrine as to the nature and effects of real ambiguity.

I have left myself little space to deal with Mr. Sidgwick's reconstruction of logic in Part II. The philosophical public *ought* by this time to be well acquainted with his views. And now that Mr. Bradley has claimed priority¹ in the discovery that 'formal validity' is no guarantee against ambiguity, the far-reaching importance of Mr. Sidgwick's logical innovations may at last hope to win general recognition. Those who are still unacquainted with them will find in Part II. a brief but admirable exposition thereof.

The *general* principle that underlies the Sidgwickian doctrine is here stated as follows: "The general name or names by means of which the description of S is given in the act of predication *must* (because of their generality) omit to specify the points in which S differs from the rest of the class. For however far we may carry the process of adding closer and closer descriptions of S, the same is true at every step. . . . So that the fullest description that can be given of S—with anything short of infinite time at our disposal—inevitably leaves out some of S's individual peculiarities. However true therefore it may be that S is M, and however lengthy the description 'M' may be, it is also always true that S is M *with a difference*. And in the absence of further knowledge it is an open question whether such difference is or is not important."² The risk of its being unexpectedly important is the risk to which we succumb when our middle term becomes ambiguous. S is not only M, but aM, and a is a quality which may spoil the otherwise justified inference that S is P. This risk, then, is always present when we make a predicative statement, however carefully worded the statement may be. There is no way of escaping it, short of ceasing to make any predications at all. It is the price we pay for the power either of generalising or of describing a Subject; it is a defect that belongs to a quality. . . . As the quality of living involves the defect of being liable to die, so the quality of descriptiveness involves a constant risk of reasoning through an ambiguous middle term" (pp. 196-197).

There is one small point—which seems to me not merely verbal

¹ *Essays on Truth and Reality*, p. 368 n.

² Italics mine in this sentence.

—in which I find myself unable to agree wholly with Mr. Sidgwick. What he calls the 'vagueness' of descriptive language, and speaks of as a 'defect' therein, I should prefer, with Dr. Schiller, to call by some such name as 'indeterminateness'¹ for the reason that it does not appear to me to be rightly called a 'defect'. On Mr. Sidgwick's own principles we are not warranted in calling a certain characteristic of judgment a 'defect' *simpliciter* merely because it may operate as such in some particular context—any more than we can call a word really ambiguous except in the context of some actual assertion. In fact the 'defect' in question, as Mr. Sidgwick has shown, is the defect of ambiguity, so far as it operates to make our *reasonings* defective. And in predication, as such, deficiency of 'information' need not be defective information in the sense in which a defect is something to be deplored. True, the 'defect' is irremediable, from the human 'point of view': but the remedy would, for us, be worse than the disease. For no one ever *wants to be told* (or even to know) absolutely everything about S. What we really want is as much detail as is *relevant to the purpose in hand*; and more than this is a superfluity and a bore. Now superfluity, or irrelevance, as Mr. Sidgwick is well aware, is always a very real logical defect. The thorough-going recognition of this is indeed, above everything else, what distinguishes pragmatist from absolutist logic. What, nevertheless, may possibly have misled Mr. Sidgwick is that, from 'the point of view of the Absolute,' the 'universal' element in human knowledge must truly be condemned on the score of vagueness, for by piling up such universals we can never reach 'the really concrete'. For an absolutist, knowledge which is incomplete must necessarily be 'insufficient,' and therefore 'defective'. But for a leading *pragmatist* logician to stigmatise a judgment as 'vague' and 'defective,' because it does not tell us what we don't want to know, is surely somewhat anomalous. Possibly this may read too much into Mr. Sidgwick's use of the word 'defective'. In that case he should at once clear himself from the faint but awful suspicion, which his language engenders, of still harbouring remnants of the absolutist fallacy.

After this slight dissension, it is a relief to draw special attention to the practical suggestions for reformed logic-teaching which Mr. Sidgwick throws out at the end of his book:—

"Such broad statements as, for instance, 'Truth is relative to purpose,' or 'Every individual case is unique,' or 'the details in any fact are innumerable,' or 'the meaning of any statement is determined by the use intended to be made of it on a particular occasion' convey little to us except through the light they throw upon other doctrines of narrower scope [*i.e.* the meaning of these general statements must itself depend on their application]; and I would suggest that, both for teaching purposes and for setting

¹ Cf. p. 180 n., and *Formal Logic*, p. 27 n.

questions in an examination, a good method would be to take any list we choose to make of these narrower doctrines and to trace their connexion with each other and their relation to the few main principles themselves" (p. 240). The following are only a few examples from Mr. Sidgwick's short list which "may serve for a beginning, and is capable of extension to any desired extent":—

"‘A’ is A; till we know better.

"‘A’ is not not-A; except when it happens to be so.

"A is either ‘B’ or ‘not-B’; or both or neither.

"No statement with a meaning is indisputable.

"All questions are questions of words, even when they are questions of fact.

"All importance is relative to some purpose.

"A mistake of fact always implies a misapplied distinction.

"Definition, to be effective in removing an ambiguity, must be a postulate, and not a statement of fact.

"Proof is never coercive."

It will be clear from these examples that this logic-book, which calls itself ‘elementary,’ resolves the old Logic into its elements in more senses than one.

HOWARD V. KNOX.

Hauptfragen der modernen Kultur. Von EMIL HAMMACHER, Privatdozent der Philosophie an der Universität Bonn. Druck und Verlag, B. G. Teubner, Leipzig und Berlin, 1914. Pp. iv, 351.

THIS book belongs to the reaction in favour of metaphysic, which it has been pleasant to notice in recent German work. But it unites with a fine mystical creed a curiously pessimistic outlook upon current tendencies, pressing to extremity a critical attitude towards the culture of the modern democratic world, an attitude for which, more temperately adopted, there is a good deal to be said.

The treatise consists, I should explain, of a "Historical and Systematic Introduction" of ninety pages, the latter sixty pages of which contain all that the author says of technical philosophy; and of a second part, comprising the "Critique of Modern Culture," which deals in 200 pages with social, economic, religious and æsthetic questions of the day in their peculiarly German aspects. There is an Appendix with copious notes, and references to recent German literature.

I will first sketch the general argument with its remarkable conclusion, and then say a word on the philosophy.

The ultimate fact of modern culture—so the author believes—is the will to advance towards self-conscious living. But so great is

the specialisation of thought and of practice, owing to the accumulated stores of knowledge and of capital (the parallel is insisted on throughout) that real understanding and practical self-guidance have become impossible for the "mass," the average of humanity. Thus the level of conscious or reflective living can in their case never transcend either that of a rationalistic expediency (the idea of Society having, by the fundamental modern error, been substituted for the true metaphysical idea of Superindividuality) or that of a merely traditional religious superstition, which is a reaction against the former, and on the same moral and intellectual level. Now this spirit of expediency, the culture which belongs to popular "Scientific" realism, has essentially the note of "becoming" and "seeking". It has no element of satisfactoriness or finality, but aims at accumulation of goods, and conquest of the material world by practice and knowledge *ad infinitum*. How extraordinarily like Aristotle's diagnosis of the financial spirit as such!

This characteristic excludes any possibility of peace or rest in unity with the universe. The author applies to it, as the "life-style" of our age, the term Impressionism, indicating at once the apotheosis of the momentary vision, and the analysis of every object into mere relations and unlimited distances. This is opposed to the idea of Impressionism which one derives, say, from Mr. Stevenson's *Velasquez*, the whole point of which is that the sense of totality is preserved.

A *prima facie* Pessimism therefore holds the field. Western civilisation is decadent and doomed; and the reflective self-consciousness of our proletariat excludes the hope that a new spring of life may arise within it. It was the ignorance of the poor in the Roman empire that gave them a chance of opening their minds to Christianity.

But yet, for the author, pessimism is not ultimate. In his view there is a secret of the universe in which peace and satisfaction are attainable; and towards which modern culture is directed, if I understand him right, essentially and inherently through the impulse to intensified self-consciousness, but nevertheless, no less essentially, without hope or chance of adequate attainment. For the secret is metaphysical, and lies in the mystical unity of God and man. But the modern "masses" are too reflective to accept this truth in the form of simple religion, and too superficial to receive it in the shape of metaphysic. Their shallow rationalism of expediency is for them ultimate. The author refers to the Monistenbund and kindred associations, and I am sure that in a great measure his notion of "the masses" is drawn from them. Whereas, he lays it down, the ideas of a small instructed minority cannot constitute a living religion.

Yet the fall of our civilisation, which he confidently predicts, the end of the human race, or the destruction of the earth, from the realist's point of view the ultimate disaster, seem to the author no

ground for pessimism. On the contrary the danger of such events is the final demonstration of supreme values in the universe.

It would prove—it does prove—that our culture, in spite of appearances, is not directed to expediency; but has an intrinsic value as an end in itself. And in this sense, he adopts Spinoza's "brave word" about death.

The difficulty which is thus stated in a highly exaggerated form—the need of a new religion and the impossibility of obtaining it from metaphysic—has been touched upon of late by several of our best thinkers. The author's peculiarity is that he not merely refuses to make the progress of our species the article of a standing or falling universe, for here many of us would be with him; but he definitely sees hopeless contradictions and signs of coming fate in all the social and intellectual movements which to most of us appear relatively hopeful, *e.g.* democracy, the women's movement, recent art and literature, popular education.

The basis of his whole attitude is in his metaphysic and Erkenntnisstheorie. It is fundamental for him that standards of value must be "metaphysical," and cannot be drawn from experience, especially not from *de facto* history. Therefore everything hinges on his theoretical establishment of Absolutism and Mysticism, to which we must now turn, passing over the long and interesting discussion of German culture-problems, with the observation that the author is a moderate Bismarckian, and repudiates the extreme ideas due to Nietzsche, insisting more particularly that it is not Christianity, but rather popular rationalism, which should be ranked as Herd-morality. I suppose, however, that the contempt for the masses and the average, in which the author is strangely at one with Eucken, is an inheritance from Nietzsche. I do not in the least believe in these notions about the "masses," having never met any one who seemed to me all round less human than myself. I believe that a sound religion is their natural attitude, and that their hold on fundamental truth is singularly strong.

He begins his construction with the old anti-sceptical argument from the self-contradiction of denying all truth, which he treats as a deduction from the conditions involved in asking a question, or as "the presupposition of dispensing with presuppositions". He calls this the synthetic *a priori* method, as opposed to any which argues back from assuming the validity of the Sciences (analytic method); and he also contrasts it with Hegel's Dialectic which gives no deductive account of its starting-point, and again with Nelson's intuition and Husserl's self-evidence, which he criticises as merely psychological. I agree here that intuition and the mere *Erlebniss* of self-evidence do not help; but I think that the dialectic method, and (what the author also repudiates) the phenomenological consideration of the import of affirmations, are essentially one with the author's own proof. The whole thing comes back, surely, to understanding that you cannot deny an affirmation except by

another affirmation (or positive basis of denial), and therefore you cannot deny the affirmation of the transcendent as such, but only correct it. And when you set about correcting it you are embarked on the dialectic process. I do not think that such a deduction properly falls within Erkenntnisstheorie. It seems to me to be metaphysical. And indeed, in a note in the Appendix, the author admits (to Nelson) that "Erkenntnisstheorie cannot prove the validity of knowledge, except by presupposing it".

Having thus got a foothold in an undeniable affirmation of Something, he proceeds to connect with it unity, plurality, and relation as *a priori* categories, which constitute a framework of timeless truth, which necessitate however a reflective subject in time, and within which are found as an "empirical *a priori*," time and space, the categories of the finite.

At this point we are encountered by a violent dualism. The detail of experience, the filling of time and space, is non-necessary, and no deduction can connect it with the characters of time and space. And thus, because in experience we have a non-necessary subject with a non-necessary object, we leap to the inference that these are the incarnation of an "ought". Experience then is essentially a struggle to realise reason, involving a battle of its elements for the occupation of a place in space and time.

From the "ought" thus deduced, which takes the shape of the great types of culture—science, morality, art and religion—are derived the standards necessary to a judgment of history and civilisation—standards of value which as we see no realism or empiricism can supply.

Man, then, has a place in the "metaphysical," in the author's quaint language. I understand the meaning to be that he stands for all finite beings who are not merely animals but valuing animals. As such, he has a non-recurrent history which incarnates the "ought," and so is a revelation of values. He is thus seen to have a superfinite (*überendliches*) nature; and it is only necessary to establish that the Absolute or total reality is "mind," which is affected by an argument somewhat lax in form, that the inferior type must follow the nature of the superior, in order to join the finite being with the whole as a finite subject united with the infinite.

The peculiarity derived from the deduction of historical experience distinguishes this course of thought from that *e.g.* of Hegel. For the struggle embodied in the very being of God or the Absolute (they are not distinguished) is one of uncertain issue, as apparently in Eucken's theory; and the necessary revelation in finite existence of an Absolute which is a genuine whole is condemned as leading to inactivity, an argument familiar in James as also in Eucken.

The steps of the metaphysical argument, to which in this brief outline I cannot have done justice, do not appear to me sufficiently

critical or precise to be of very high value. For instance, the sense in which the Absolute is "mind," and is a "timeless becoming," needs more definition than I can perceive that it obtains. But I set them out because they illustrate so emphatically the determination of many mystical thinkers to have it both ways—to retain the uncertain issue which the moral attitude appears to demand and to limit the divine nature accordingly, and yet on the other hand to maintain an underlying mystical unity in view of which the *de facto* issue of the moral conflict is either a certainty or a matter of indifference. Now it is right, in my judgment, to treat finite beings as essential in the realisation of the good and yet not to stake our ultimate faith in the universe, on the ups and downs of a series of temporal events. But it is surely an untenable dualism to accept in principle as it were a pessimism as regards phenomena, along with an optimism as regards things in themselves. And the prevailing tendency to this attitude depends on a half-heartedness which refuses to think out how perfection can be revealed through imperfection.

BERNARD BOSANQUET.

The Idealistic Reaction against Science. By Prof. ALIOTTA.
Translated by AGNES McCASKILL. Macmillan. 1'p. xxii, 483.

THIS translation of Prof. Aliotta's extremely learned and valuable work will be of great use to philosophers unacquainted with Italian. The original was reviewed at length in vol. xxi. of *MIND* by Prof. Taylor, to whom the English version is dedicated. But considerable changes have been made by Prof. Aliotta, so we have largely a new book. A good many of the criticisms on Russell's earlier views of geometry and on the Marburg school have disappeared, and there is a new concluding chapter containing a sketch of the author's own philosophical position.

I shall begin with a few words on the translation; shall then notice certain points in the older parts, not discussed by Prof. Taylor; and shall finally say something about Prof. Aliotta's own views as presented in the new last chapter.

The translation is on the whole sound and intelligible, though scarcely inspired or inspiring. But there are a few criticisms to be made. On page 91, 'ethic' as an adjective is hardly English. On page 130 the following sentence is clumsy and liable to give a totally wrong impression: . . . 'time . . . and mathematical space, constructed so as to be able to act upon things'. This suggests that it is time and space that act on things, whilst what is really meant is that they enable *us* to act on them. On page 173 Prof. Aliotta is made to talk of 'the transmission of light through the air'. He of course means (and, in the original, says) 'through the

ether'. On page 179 there is a misprint, 'word' being written for 'world'. On page 198 the phrase "the *convenience* of two representative contents" is not the proper translation of *convenienza*; the meaning is clearly 'agreement' or 'conjunction'. On page 201 'conscient' is rather unusual English; why not say 'conscious'? On page 204 I cannot conceive what is meant by saying that the Ought 'derives its adhesion from a judgment'. On page 224 in the twelfth line from the bottom 'himself' should clearly be 'itself'. On page 291, line 21, a 'not' has slipped out before 'suffice'. On page 341 there is a curious error which has been carried over from the original, whereby an article by Klein is dated 1807. On page 376 we are told that Gibbs conceived atoms as 'independent of an infinite number of variables'. This is a literal translation of the original, but, so far as I can see, it is meaningless in English. I suppose it to mean 'functions of an indefinite number of independent variables'. Finally on page 470 a celebrated sentence of Leibniz is misquoted. Leibniz did not say: *DUM Deus culculat fit mundus* (which would have been scarcely respectful) but *CUM Deus culculat fit mundus*.

To turn to the older contents of the book, is it fair to talk of Dr. McTaggart's philosophy as a 'mystical degeneration of Neo-Hegelianism'? Prof. Aliotta seems to confuse two questions: (1) Do McTaggart's conclusions agree with those reached by certain mystics? and (2) Does he reach them by philosophic argument or by mystic vision? To answer the first question affirmatively does not give one a right to talk of 'mystical degeneration'; and, with regard to the second, it is clear that (however much we may disagree with this opinion) McTaggart does hold that he proves his mystical conclusions by philosophical arguments.

Prof. Aliotta has an ingenious argument to prove that there is no incompatibility between Euclid and the other two types of geometry. The point is that you call certain curves in Euclidean space non-Euclidean straight lines, and that it is not surprising that these have qualities different from Euclidean straight lines. On the other hand Euclidean geometry is the most general, because, whilst you could represent all non-Euclidean curves in Euclidean space, you cannot represent Euclidean parallels in non-Euclidean space. If Prof. Aliotta be right non-Euclidean geometries are simply fragments of Euclidean geometry. I think that Prof. Aliotta is on the track of the truth here, but he has certainly not reached it. There are curves in hyperbolic space that correspond to Euclidean parallels; *e.g.*, it is just as true to say that the geometry of the horosphere in hyperbolic space is Euclidean, as to say that the geometry of the pseudosphere is Euclidean space is hyperbolic. So the relation of the two geometries can hardly be that of part and whole. Again in hyperbolic space there are equidistance curves which are not hyperbolic straight lines but correspond in some ways to Euclidean parallels.

With regard to Prof. Aliotta's view that the logical definition of order is circular, I suggest that the very appearance of circularity vanishes in an inflected language. It sounds plausible to say that there is a circularity in defining order in terms of the difference between such propositions as *James loves Peter* and *Peter loves James*. But it ceases to be plausible when you define it in terms of the difference between such propositions as *Jacobus Petrum amat* and *Jacobum Petrus amat*. And, with regard to the alleged circularity in the definition of numbers (*viz.* that it involves the recognition of a plurality) it must be noted (1) that a plurality is not a number; (2) that there is nothing circular in being acquainted with what you are defining: it would not be much use defining anything with which you had no practical acquaintance; and (3) that, if Prof. Aliotta's objections were valid, all definitions of the word 'word' must be circular; for they all involve the use of words. And this seems to be false.

In the argument (p. 336 *et seq.*) about the New Realism it is evident that Prof. Aliotta holds that the doctrine of external relations is incompatible with causal interaction. This is a mistake. The doctrine of external relations only says that the fact that A and B enter into a relation R does not *logically* involve any change in their qualities; it never denies that a change of qualities may follow *causally* in time. Hence it is quite idle to oppose to the view that awareness of an object makes no difference to it the fact that the awareness is produced by the causal action of the object on the mind.

Let us now consider Prof. Aliotta's own views. His concluding chapter consists of an admirable defence of the theoretical value of science as against irrationalists of all kinds, and of an attempt to prove a kind of spiritual realism involving the existence of God. The first part is full of good things. The intuitionist who attacks science is reminded that he first makes an abstraction of scientific concepts from all matter of perception—a thing which the scientist himself never does—and then says that science presents us with a mutilated fragment of reality. To this Prof. Aliotta answers that, whilst all science must practise some abstraction, the world of perception seen as a connected system subject to scientific laws is something much fuller and richer than any momentary intuition unenlightened by thought can give.

Another excellent point is scored against Mach and his school who hold that it is only by chance that mechanics has been taken as the fundamental science. Such thinkers forget that motion as treated in mechanics is not perceived motion but is an intellectual construction suggested by the latter. This concept can be dealt with scientifically, and, by correlation with it, the data of the other senses can be made objects of scientific study; but if, as Mach suggests, we had started from our temperature experiences, they would have indicated no comparable intellectual concept to us.

Prof. Aliotta's positive views do not strike me as being so good as his criticisms. His argument seems to be as follows. We must assume that our own minds exist and that our knowledge of them is perfect as far as it goes (*i.e.* there can here be nothing corresponding to illusions of sense). But our thoughts claim to refer to objects that exist when we are not thinking of them. Hence, even if we wanted to be solipists, we should have at least to admit the existence of unconscious processes in our minds and permanent traces of past events. But, as soon as we do this, all ground for solipism vanishes and we can discuss the *nature* of an external world without further question as to its reality. It cannot consist of a single all-embracing thought of which our minds are parts; for then the impenetrability of one finite mind to another would be inexplicable. But neither is there any reason to think that it consists of nothing but other finite minds of various orders of intelligence. If what we call matter consist of minds they will be so unlike our own that this piece of knowledge will not be worth having. Yet we can be quite certain that external reality is not unknowable; for in order to say anything about it we have to apply *our* categories like being, cause, etc., to it. And we do actually find that the external world can be successfully dealt with by *our* categories. The conclusion is that the external world is striving towards intelligence but has not reached it, and that it only reaches it when it is understood by us. Our knowledge of matter really does make a difference to it; it, so to speak, raises it to our intellectual level. Matter then exists for an end, and is subject to the norms of mind. But an end can only be operative through the actual existence of an idea of it; now matter does not know that it is aiming at intelligence nor are we constantly trying to raise matter to our level. Hence there must be a God who is intelligent and has adapted matter and our minds to the progressive realisation of more and more complete intelligence. It is he who creates a rational mind whenever certain material conditions are fulfilled, and it is he who preserves the validity of the norms of thought when actual thinking disobeys them. Prof. Aliotta refuses to make a sharp separation between pure and practical reason; his proof of theism rests on what Kant would have called pure reason, but it is of the same type as Kant's own arguments from practical reason, and, if these be valid, they will furnish another equally good proof.

These arguments do not convince me. (1) They rest on the view that the categories are in some sense part of the framework of our minds which we impose on external things. It then becomes necessary to explain how it is that our thoughts fit things. But this view of categories seems to me wholly mistaken. I quite agree with Prof. Aliotta that we do not learn that there is such a thing as causation either (*a*) by direct sensible experience, as we learn that there are colours, or (*b*) by inductions founded upon

sensible experience. But this does not mean that the category itself is in any sense a part, state, quality, form (or what you will) of our minds which we impose on things. Our thinking does not impose *c.g.* causation on things, but finds that things exemplify it. We might put the argument in this way: Either events do have causal relations independently of our thoughts about them or not. If not then things are not adjusted to the mind and Prof. Aliotta's arguments based on this adjustment would break down. But if so (as Prof. Aliotta himself so ably argues) then there is no problem of *adjustment*; our thought *discovers* causation by reflecting on the processes of nature just because these processes are instances of causal series. The only thing left to explain is the fact that our mind can discover the universal in its particular instances. (2) I find Prof. Aliotta's own explanation of the nature of the adjustment difficult to follow. Things are adjusted to our minds because they are tending towards intelligence. This is ambiguous, and the ambiguity appears noticeably in Prof. Aliotta's discussion. It might mean that things are tending to become intelligent or that they are tending to become intelligible. Prof. Aliotta's view seems to be that the former implies the latter. But, as far as we can tell, it is only the matter that forms part of brains that can be said in any sense to become intelligent. On the other hand this is not the only matter that can be understood, nor it is the best understood matter. If we take the other interpretation and say that matter is adjusted to our minds because it is tending to become intelligible we merely commit the folly of saying that matter is intelligible because it is tending to become so. And this is not, I think, Prof. Aliotta's view.

And I do not see how the hypothesis of God will help us here. Are we to say that the matter which is intelligible and yet does not form the part of any finite brain is really intelligible because it forms part of God's brain and has thus become intelligent? This does not seem to be Prof. Aliotta's view. His view seems to be the still stranger one that matter is *now intelligible* because God knows and has arranged that it shall *some day be intelligent*. I really cannot see the least connexion between the actual fact and its alleged ground here. Even if we take a much more moderate view, which Prof. Aliotta sometimes mentions and seems (quite wrongly) to identify with his view that to be intelligible a thing must be tending towards intelligence, we shall not reach the required conclusion. Grant that God must be postulated to endow certain aggregations of matter (brains) with consciousness if thought is to be regarded as trustworthy. This only proves that if *any* matter is to be understood *some* matter must be endowed by God with a suitable understanding. But it has not the least tendency to prove that *all* matter that can be understood must be tending to be or capable of being endowed with understanding.

I have insisted more on my disagreements than on my agreements with the author. But I wish to close with a tribute to his learning, fairness, and acuteness; and I heartily welcome this translation of his book on behalf of English philosophic students.

C. D. BROAD.

Il Vecchio e Il Nuovo Problema Della Morale. By E. JUVALTA. Bologna, 1914. Pp. x, 135.

PROF. JUVALTA rightly considers that morality as a science took an entirely new start with Kant. Before that philosopher wrote the principles of human conduct had been regarded more or less as a question of individual interest. Even the austere Butler confessed that as a matter of cool calculation no man could be expected to sacrifice his happiness to that of other men. The good Bishop knew that morally such a sacrifice was sometimes incumbent in this life; but he got over the difficulty by referring us to another life. Kant's attitude is a little ambiguous; but his Categorical Imperative may be accepted without accepting his theology, his personal belief in which is indeed doubtful. But with Prof. Juvalta the moral imperative is really categorical—it is an absolute imperative, not to be confounded with any other motive, dictating without reference or appeal the course of action to be pursued.

The other supposed sources of morality are briefly passed in review and shown on analysis to be either invalid or to involve surreptitiously the very Categorical Imperative that they are designed to supersede. An ethics based on theology must be either unmoral or unmeaning, seeing that religious people only do what God commands because it is right; nor can we know that what He commands is right unless we know the meaning of rightness from some other source. Nor is it permissible to deduce morality from the nature of things, whether statically or dynamically regarded; for that can only be done by first reading morality into nature. Thus the theory that distinguishes "degrees of reality" in the external world in fact discriminated between those degrees by their relative approximation to moral perfection. And similarly those philosophers who judge of human conduct by an evolutionary standard are assuming, to begin with, that evolution progresses on lines of advance to moral perfection. Prof. Juvalta must not be understood to deny this tendency as a historical fact; only his contention is that evolution does not give but finds and applies the moral law. This originates from within not from without, and it is primarily concerned neither with the reason nor with the sensibilities—æsthetic or other—but with the Will.

Prof. Juvalta is not a hedonist in any sense, universalistic or egoistic, nor indeed does he seem very careful to distinguish between the two, incidentally referring to altruism as a taste like

another, not necessarily associated with genuine morality. The dictates of utility may very well coincide with the moral law but they do not give it; they are not imperatively binding on the will. Here the Italian philosopher seems to go beyond Kant, who at any rate admitted that the happiness of others though not his own should be the moral agent's end. By the way one does not precisely see how Kant got hold of this altruistic happiness-principle except empirically, from contemporary opinion, nor how it fits on to the transcendental principle that all rational beings should be treated as ends, never as means. The last-mentioned canon seems to be constantly violated in war, where human lives are sacrificed wholesale every day without moral rebuke for the purpose of winning important military positions. Prof. Juvalta suffers under the same difficulty as Kant. He also has to extract the content of morality from its form. With no guidance either from theology or from natural knowledge or social utility, from the mere fact of obligation we have to discover what it is our duty to do.¹

For a solution of the problem recourse is had to two methods. In the first place, with the modern theory of a categorical imperative is combined the still more modern theory of values. I say 'modern' for the word itself goes back, I believe, no farther than Lotze; but the thing itself is very old. According to Plato Justice is the greatest of all goods and should be sought after without the hope of a hedonistic reward either in this life or in another. The same principle was strictly carried out by Stoicism; and even Epicurus could profess to be perfectly happy when dying in agonies of pain. But after all the voluptuary may and will decline to accept the moralist's scale of values, refusing to do his duty unless forced thereto by the primitive application of pains on the part of the State. And so the second method comes in, under the form, as would seem, of an appeal to the authority of public opinion. The point is one on which I cannot speak with complete certainty; for Prof. Juvalta, who generally writes clearly, writes also with extreme concision, giving neither illustrations nor developments; and in this instance concision is not favourable to clearness. The case as he puts it is this: Life has various competitive ends; and as a matter of simplification it has been attempted to resolve morality into one or other of these, to explain it by self-interest or the interest of others, by the love of beauty, or intellectualism, or religion. Each of these pursuits assumes a compelling form of its own and awakens a peculiar force of conscientious obligation in its devotees. But for its matter each has a certain set of duties whose fulfilment is demanded in preference to all others. Each has its own values, which are cultivated in a narrow and exclusive spirit; but nevertheless they occupy a certain amount of common ground; their attainment postulates the performance of certain

¹ The problem is not new; it beset Dr. Whewell when he held the Chair of Morals at Cambridge.

conditions necessary to all. Among these may be mentioned zeal, perseverance, self-control, and daring. And this involves the recognition as values of personal liberty and integrity, the observance of contracts, the exchange of good offices, and so forth, together with the habits, institutions, and laws insuring the preservation and increase of these conditions. And by following out this method we finally arrive at the primary and fundamental values of every moral system: Liberty and Justice (pp. 94-105).

Much of the above seems good and true; but it strikes the present reviewer that more satisfactory results might have been reached by an easier and less artificial process of reasoning. There are great systems of morality in which neither liberty nor justice, as we understand them, find a place. They might be sought for in vain in a recent manifesto signed by the representatives of German art, intellect, and religion. The values of life depend on life itself and on its conditions. There may be a morality even in the face of certain death. Sidney was mortally wounded when he handed over his glass of water to the soldier who, for all the story knows, may also have been doomed. Another point raised by this whole discussion is the interest of the lower animals—a subject never once touched on by Prof. Juvalta in the whole course of his book, nor involved in the principles he lays down. It was summarily brushed aside by his master, Kant, but a moralist ought to know better now. We are told that the conscience of Abraham Lincoln gave him no rest until he rode back half a mile to extricate a pig from a swamp where he had seen the animal vainly struggling. A somewhat similar story is told of the Sultan Mohammed II., and others besides; but the very facility with which the anecdote migrates from one celebrity to another proves how inseparably associated the duty of relieving pain, wherever it occurs, has become with the binding obligations of conscience.

And this widened view leads us on to another issue of the gravest importance. Admitting the supreme authority and sacredness of moral obligation, does it follow that the Categorical Imperative cannot be analysed into or deduced from any wider form of ideation? Like Kant, Prof. Juvalta seems to be a spiritualist who holds that such a derivation is impossible. But here we come up against another problem. One may admit that the evolution of man with all his rational and moral endowments from a creature without reason or conscience is not yet proved. But such an evolution is at any rate incomparably more probable than the transcendency of the moral law. 'Given the elements of any brute to evolve the perfections of any angel' was the epigrammatic defiance flung down by James Martineau to the empirical school of psychology. Philosophers must now put it the other way round. The angel has to be derived from the ape—or from its equivalent.

A. W. BENN.

VII.—NEW BOOKS.

Mechanism, Life and Personality. An Examination of the Mechanistic Theory of Life and Mind. By J. S. HALDANE, M.D., LL.D., F.R.S., Fellow of New College and Reader in Physiology, University of Oxford. London: Murray, 1913. Pp. vi, 139. Price 2s. 6d. net.

THESE four lectures form a valuable contribution towards the fulfilment of the task of "bringing the great biological movement of the nineteenth century into definite relation with the main stream of human thought". They are very skilful, and though they will not please either mechanists or vitalists, they are notably fair-minded. In the first lecture, indeed, we are almost persuaded to be mechanists. For the organism is of a piece with its surroundings; it obeys the laws of energy; it makes no difference to the energy balance whether it is conscious or not; its activity consists of physical and chemical processes; the application of the methods of physics and chemistry has yielded the science of physiology; the nervous inter-connexions and the diffusion of regulative secretions by the blood account for the co-ordination of the various mechanisms that make up the body; in short "the peculiar phenomena of life are due to the play of the physical and chemical environment on intra-protoplasmic mechanisms which have been evolved through the influence of natural selection acting for ages." When bio-physics and bio-chemistry are taken away from biology, there is nothing left!

Having given a very attractive picture of mechanistic interpretation in the first lecture, Dr. Haldane proceeds in the second to show that it is an illusion. In the light of subsequent lectures we know that he regards it as a bubble, but he does not tell us the whole truth too suddenly. "Somehow or other a living organism never *seems* to be a mechanism, however often it may be called one." This intuition is corroborated by scrutiny. The nervous mechanism, for instance, is a misnomer, for "in identifying stimulus and response with physical or chemical cause and effect the mechanistic theory makes a gigantic leap in the dark". Physical and chemical methods are of course useful for studying the physical and chemical processes that go on in the body, and they give us physical and chemical results, which suffice for isolated processes and are useful for certain purposes, *e.g.* in medicine and dietetics. But the problems of biology cannot be solved piecemeal, for they are problems of life; and Dr. Haldane maintains that there is not forthcoming any physico-chemical explanation of any vital function,—of muscular movement, of a nervous reaction, of secretion, of respiration, of excretion, or of any functional activity whatsoever. It is obviously very important to have this statement from a physiologist of high standing, and we would quote a sentence (p. 47): "To sum up, the application to physiology of new physical and chemical methods and discoveries, and the work of generations of highly-trained investigators, have resulted in a vast increase of physiological knowledge, but have also shown with ever-increasing clearness that physico-chemical explanations of elementary physiological processes are

as remote as at any time in the past, and that they seem to physiologists of the present time far more remote than they appeared at the middle of last century".

It might be said that this is an *argumentum ad ignorantiam*, and it would be so if any vital function admitted of adequate physico-chemical interpretation, but Dr. Haldane points out that mechanistic physiology has not won any success. If the outlying forts had been stormed, one might fear for the central citadel; but it is not so. The self-regulating correlation of parts, the continual maintenance of specific organisation and activity, the phenomena of reproduction and development, and so on: "no physical or chemical explanation of them is remotely conceivable".

"What the mechanistic theory must assume in the case of an organism such as man is a vast assemblage of the most intricate and delicately adjusted cell-mechanisms, each mechanism being so constituted as to keep itself in working order year after year, and in exact co-ordination with the working of the millions of other cell-mechanisms which make up the whole organism." And all this must be condensed into a germ-cell, which will fuse with another, and divide many times, and develop into an organism—the implicit becoming explicit again. It seems far away from mechanism. While we agree with the author in thinking that a mechanical interpretation of heredity and development is out of the question, we are not prepared to abandon Weismann's far from mechanical hypothesis of the germ-cell as an implicit organism, consisting of a multitude of living determinants or primary constituents or factors, often in multiplicate representation. We cannot explain any case of cell-division in terms of anything simpler, it is a vital process; but the division of an amoeba in the pond and the division of the fertilised ovum of a higher animal surely differ only in degree. When Dr. Haldane says that we have to postulate for the germ-plasm 'on the one hand absolute definiteness of structure, and on the other absolute indefiniteness,' he is not so convincing as usual, for the definiteness refers to the specificity of the organisation and activity, and the indefiniteness to the power of dividing over and over again. What is the antithesis?

Becoming convinced that the mechanistic interpretation does not work, we naturally seek for a vitalistic one,—that there is operative in organisms some agency which does not appear in the purely physical domain. Some sort of guiding and controlling influence is manifested only in living organisms, and acts in a manner wholly different from anything known in the inorganic world. But Dr. Haldane will not allow us to take refuge in the hypothesis of a 'vital principle' or 'entelechy'. He is as stern with the vitalists as with the mechanists. He maintains, for instance, that "any 'guidance' of living organisms by the vital principle would imply a creation or destruction of energy," and imply "a definite breach in the fundamental law of conservation of energy". It should be noted, however, that Driesch very stoutly denies that this would necessarily follow. Haldane brings forward other objections, such as this, that an effective internal guiding principle would require a superhuman knowledge in order to guide aright. We do not follow the answer given on page 27 to Driesch's second proof of vitalism. But the fact is, that the arguments in favour of the vitalistic interpretation are mostly found in the breakdown of the mechanistic; and every one admits that to prove one solution wrong does not prove another right, unless the answer must be either the one or the other. Dr. Haldane proceeds to develop a third position.

When we pass from the inorganic world to the life of organisms, we need new concepts, for the old ones do not fit. We must utilise the concept of the living organism, an autonomous whole, the several ac-

tivities of which are all determined in a definite relation to the activity and structure of the whole. "There is constant active maintenance, constant renewal, constant breaking down and reproduction of the living structure; and this is of the very essence of our conception of life." "All living structure is active structure; and it lives in actively maintaining itself and reproducing its structure." Both structure and activity are the expression of an organic and indivisible whole.

The idea of life is nearer to reality than the ideas of matter and energy, but the idea of personality is nearer still. "The man as a person is more than the man as an organism; but we must not make the mistake of supposing that he is anything different from his organism perceived and understood more fully. It is absolutely vain to attempt to separate in any other sense the personality of the man from his organic life." The relation between mind, organism, and matter "is not a spatial one, capable of being stated in any sort of terms of interaction. The relation is simply one of different degrees of nearness to reality in the manner in which phenomena are described." "In actual fact we do not understand, except in the most imperfect manner, the reality which lies behind the appearance of a physical world. But we understand enough to be certain that this reality has, and can have, no existence apart from personality, since existence itself has no meaning apart from spiritual existence." Just as we must seek to throw the light of the organism-concept on the domain which for certain purposes we call purely physical, so we must throw the light of the personality-concept on both. It is thus that the author carries the war into the enemy's country and wins a notable victory.

J. ARTHUR THOMSON.

Henri Bergson. An Account of His Life and Philosophy. By ALGOT RUHE and NANCY MARGARET PAUL. Macmillan & Co., 1914. Pp. vii, 245.

This is by far the best, as it is certainly the most complete, account that has so far been published of Bergson and his philosophy. Mr. Algot Ruhe is a Swede, and has translated Bergson's works into the Swedish language. The translation is in six volumes, and this book is his own introduction to that work. Mr. Ruhe knows his subject perfectly and has studied with minute care everything of M. Bergson's which has appeared in print. He is also to be congratulated on his collaborator. Miss Paul is one of the English translators of *Matière et Mémoire*, and it is no doubt due to her and to her full acquaintance with M. Bergson's works that this volume is an original English work and not merely a translation from the Swedish.

The book is not an exposition of Bergson, still less is it a criticism. It is a simple and full account of the philosophy, often in the very words of the original. It is not intended to take the place of the philosopher's writings, but to be in the full sense of the word an introduction, easy for those who like to have a complete account of their author and his work before they begin a detailed study, and useful as a companion to those who know their author.

The life of Bergson is not characterised by striking events. It is to be read in his work. A studious scholar, a hardworking schoolmaster, a university professor, from the first and throughout deeply intent on the problems of life and mind, the chief crisis of his life was the decision he had to make as to whether he would specialise in classics or in mathematics or in philosophy. Winning his way by sheer hard work and

intense living interest in his work he came to be recognised as the leader of a new direction in philosophy, and suddenly found himself world-famous, he knew not why. Since then his main struggle has been to pursue the work to which he is devoted amid the distractions of a world-wide correspondence and the desire to respond to the solicitations of admirers and friends. For the charm of Bergson is personal as well as literary, as all who have been privileged to hear him lecture know.

We are told of his quiet home in Paris, its shady seclusion and easy access to the centre of the life of the city, and of his villa in the Jura overlooking Lake Lemman, where he spends the summer preparing his college courses. But intensely interesting are the early papers and essays, mostly inaccessible, which are here described or quoted. We are able to see the beginning of Bergson's great ideas and the characteristic direction of his thought. Perhaps the most remarkable is the earliest of all, an address at a school distribution on the subject of specialisation. "It is because we have looked at reality itself as it were with a microscope, that we have divided it into parts. If we do not begin by giving a glance at the whole, if we pass at once to the consideration of the parts, we may perhaps see very well, but we do not know what we are looking at." Have we not here the simple ground of the doctrine of intuition and intellect? This address was delivered in 1882, Bergson being then twenty-three, and holding his first appointment as schoolmaster at Angers. A year later he received an appointment at Clermont Ferrand, and the five years that followed were the most important of his life. They are here described as a "spiritual retreat," for during that time although his work was heavy "all the main lines of his philosophic structure were laid down and he prepared himself by special studies for its building". At the end of the time he had produced his two theses for the doctor's degree, one in Latin: *Quid Aristoteles de loco Senserit*, and the other in French, the *Essai sur les données immédiates de la conscience*, this last well known as the first of the three books which constitute his main contribution to philosophical theory, entitled in the English edition *Time and Free-will*.

The authors have also reproduced for us in this account of Bergson's life and personality two other prize-distribution addresses, one spoken in 1885, on "La Politesse," which is a beautiful illustration of his power of subtle analysis and of the quiet humour which is characteristic even of his most difficult metaphysical work. The other is ten years later and entitled "Le Bon Sens et l'Éducation". In this the main theme is the contrast (also a main theme in *Matière et Mémoire*, published in the same year) between good sense, "the very essence of spirit," and the "dead weight of errors and prejudices we are condemned to carry along with us". "Education must step in, not so much to impart an impulse as to clear away hindrances; to raise a veil rather than to bring light."

In 1900, the year of the Universal Exhibition, the first International Congress of Philosophy was held in Paris. At the same time the *Société française de Philosophie* was formed. Bergson was associated with both of these movements, and many of his most valuable contributions to current philosophical controversy were called forth by the discussions at these gatherings. M. Bergson is now engaged in re-editing the principal articles he has contributed from time to time for a new volume of *Essays and Lectures*, but until this appears the articles are difficult to obtain, most of them being out of print, and the account of them which the authors of this volume have given us is therefore specially valuable.

The remainder of the book is an account of the philosophy. It is ranged under four heads, namely, Change, Freedom and the Will, Body and Soul, Life. The arrangement follows the order suggested by Bergson's three books. The chapter on "Body and Soul" contains under

the title "Intellection," a short account of one of Bergson's most important occasional articles, "L'effort Intellectuel," which appeared in the *Revue Philosophique* for January, 1902.

There is one disadvantage that Bergson's philosophy suffers from presentation in this condensed form, crystallised as it were round definite doctrines which are made to fit into one another or at least to lead one to another, it makes it appear much more systematic than it is. This is perhaps inevitable and only to be overcome by direct contact with the living thought itself. The unity of Bergson's philosophy is the indivisible flow of a movement, not the rigid consistency of a system.

H. WILSON CARR.

The Ethical Implications of Bergson's Philosophy. By UNA BERNARD SALT, Ph.D. Archives of Philosophy, No. 4. New York: The Science Press, 1914. Pp. 183.

Mrs. Salt has already earned the gratitude of students by preparing the excellent bibliography of M. Bergson's writings and the ever-increasing mass of literature directly bearing upon them, published by the Columbia University Press. It is a bibliography conveniently arranged in a chronological order so that any collector can go on adding to the catalogue until the interest dies out or loses itself in the general stream of the world's thought. In the present work the author shows that she is no mere collector, but a profound student and assimilator of the new philosophy. Another teacher besides Bergson has also influenced her, Prof. Dewey, under whom she has studied, and to whose inspiration, as she gratefully acknowledges, the particular form of her ethical theory is due. In this most thorough and adequate study which she prepared and presented as her thesis for the doctorate which the University of Columbia has conferred upon her, she has endeavoured to expound the principles and definite doctrines of Bergson's philosophy and to indicate their special bearing in practice.

"On the subject of Ethics," she says, on page 67, "Bergson has so far, in his writings, had practically nothing to say." And she goes on to suggest that "Bergson cannot, at least initially, have been enthusiastically interested in ethics. His personal attitude throughout his writings seems to be a combination of that of the scientist and that of the artist, and, of course, this has had its effect on his philosophy." No doubt. But then if this be true of Bergson himself, his followers have not been slow to make practical application of his doctrines, witness Le Roy, Sorel, Wilbois, to name only a few of the best known. Indeed he has been claimed as the philosopher of revolution in religion and politics and morals. His doctrines have even been held by Sorel in his *Réflexions sur la Violence* to justify the advocacy of violent methods as opposed to peaceful persuasion for securing social progress. One of Bergson's hostile critics, René Berthelot, has tried to show that Bergson's doctrine is in substantial agreement with, if not inspired by, Nietzsche, and seeing that just now the aggressive militarism and materialism which is held to be responsible for the present calamitous war, is traced by many to the influence of Nietzsche, the question of the true ethical implication of Bergson's theories cannot be unimportant.

It is not, however, with this aspect of the ethical problem that Mrs. Salt has dealt. Her book was written before the terrible events of this war turned all thoughts to the question of strife and conflict and the part they play in the evolution of "culture". Whatever may be the ethical implication of Bergson's philosophy, no one is likely to charge it with

the attempt to justify the maxim that might is right. The ethical implications which the author treats in this book concern the individual and his relation to society. What she appears anxious to show is that Bergson's philosophy is consistent with all the old and generally approved moral ideals. She does not suggest that it implies other and altogether new ideals. She has therefore nothing startling for us. This may be disappointing but it is just as well. If new ideals are lying implicit in Bergson's philosophy it is to Bergson himself we shall look for their revelation. Two difficulties in particular seem to confront the author in her attempt to find on Bergson's principles an objective meaning of good and evil and consequently of right and wrong. The first is the denial of final end or purpose in the form of a pre-ordained plan to which the world conforms. Evolution is a process, the vital impulse is behind us, driving us forward in a need of creation. It is not an attractive force drawing us to fill our place in an already prepared city of God. Reality is making itself. The other difficulty is the doctrine of the tensional nature of experience. Activity is manifested in extension and extension is the inverse direction of the vital impulse itself. Hence in making itself life is also defeating itself. It is these principles, apparently at variance with our ordinary postulates of morality, which the author seeks to reconcile with the concept of an objective moral order and progress. How far she is successful the reader must judge.

One word of warning seems called for. The terms "sympathy" and "intuition" bear in Bergson's writings a definite and technical meaning. We cannot call to mind any passage in which they carry any ethical implication whatever, yet these terms are the keynote of Mrs. Sait's ethical interpretation. This is not an error into which Mrs. Sait has fallen, she is fully conscious that she is extending the meaning of the terms, and she tells us in her introduction that she considers that Bergson has not himself fathomed the depths of the conceptions for which these terms stand. It may be so, but we wish she had guarded more carefully against the danger of a complete misapprehension. When we read for example, on page 154, that "through growth of sympathy and recognition of unity, all should come to be animated with a common purpose, the welfare of the whole society," we may find no fault with the aspiration, but is it not clear that the term "sympathy" is used not in an extended but in a quite different meaning from that of Bergson? The behaviour of the paralysing wasp is an instance of what Bergson means by his doctrine that instinct is sympathy.

We may call particular attention to the author's views of the part which women are to play in the society of the future. She is under no illusion. "It is in man," she tells us, "that intellect has reached its fullest development." This she considers is not due to the incapacity of women. In the true Bergsonian spirit she conjectures that intellect slumbers in women ready to awaken when artificial restrictions are removed and freedom is attained. It may even be destined to surpass its achievements in man.

H. WILDON CARR.

Religion and Free Will: A Contribution to the Philosophy of Values. By W. BENETT. Oxford: Clarendon Press, 1913. Pp. 345. Price 7s. 6d. net.

The controlling interest of Mr. Benett's previous writings has been, as he himself puts it on page 62, the review of all kinds of judgments passed upon human conduct as determined by final ends. His conclusion

was that all such judgments are determined by the relation in which conduct stands to the final end of evolution. In the present massive and well-informed argument he advances to the study of religion as disclosing a final end which is neither properly conceivable nor subject to phenomenal law. He rejects the ethical mean as the test of goodness, mainly for the reason that evolution demands a conflict of opposites, and stops when either conflicting principle becomes weak. Unless the existence of absolute values is to be given up, "we must assume that there is some final end external to the process of evolution, and beyond the limits of our reason" (p. 33). The distinction he makes between ethics and religion is so extremely sharp as to constitute a dualism. We are not prepossessed in favour of having a black ugly ditch between the two, but for Mr. Benett it could scarcely be more impassable. "In ethics," he says, "we deal with phenomenal facts and hypotheses: for conceptions of reality we must appeal to religion." The truth is surely rather that moral experience itself puts us in contact with a non-phenomenal reality which first lends meaning to the word "absolute". But Mr. Benett's view of a transcendental order, revealed by religion, and forming a necessary complement to ethics, naturally gives shape to his whole argument; and alongside of it goes a dualism of religion and intelligence which is hardly less acute. "As a belief, in order to serve as the basis of worship, must be irrational," he declares, "so, in the same way, a belief once formed loses its vitality as soon as it is exposed to criticism and analysis" (p. 104). It might have been supposed that no belief is quite irrational whose irrationality you can prove to be *necessary*; but apart from this, it is only fair to say that for Mr. Benett ethical belief is in the same condemnation, and that two pages later he proceeds to give grounds, which may be allogical enough but need not be irrational, for discriminating "the doctrinal absurdities which are worthy of belief, from those which are not". Religious beliefs are true, he holds, which are consonant with evolution. What this means is later explained by saying that religion, too, like the evolutionary process, must be a *complexio oppositorum*; thus there can be no permanent religion "without both the faith which is spiritual, and finds its expression in love, and the faith which is intellectual, and expresses itself in dogma" (p. 156). But religion should keep clear of contemporary philosophy. And to make a prophylactic barrier between itself and science, it must expel all mathematical ideas.

We have no space to consider Mr. Benett's interesting chapters on Dogma and Asceticism, in the second of which he owes much to Harnack; but his treatment of Free Will and Determinism merits notice, and is perhaps of more distinctive philosophical importance than anything else in his book. He differentiates in a clear and sound fashion between the scientific and the teleological methods, the one dealing with external, the other with internal experience in certain aspects; and in consequence rejects the idea of a science of ethics as intrinsically absurd. It could only be realised, anyhow, on a basis of Hedonism. And free will cannot be real if Hedonism is right. He declines to inquire explicitly whether the will is free or not, but on page 267 he commences an investigation of what precisely is meant by "freedom of the will" that forms a quite useful substitute. It is argued at length that while no doubt a clear conception of evolution implies new departures, and this position may be used to discredit moral freedom as nothing more than a natural spontaneity, yet in the province of thought, unlike extension, freedom occupies the foremost place, almost to the exclusion of law. When Mr. Benett comes finally to ask what the practical results would be of a universal acceptance of neces-

sitarianism, we are treated to the best writing and thinking he has yet given us, and this holds good particularly of his searching scrutiny of the meaning attached to expediency by Bentham and Hume. One striking circumstance is pointed out, namely, that "the beneficent reform [in criminal administration], for which Bentham deserves a large share of the credit, was in fact brought about by the substitution of the principle which he attacked, in place of the principle which he regarded as his own". His theory was expedience, but the great effects produced by his work had their sanction in justice. Reference must also be made to a convincing argument in favour of retributive justice as the one fixed standard by which all punishments should be determined.

It is curiously difficult to sum up the total effect of Mr. Benett's volume. Each paragraph, as it comes, appears to make its own contribution, and does make it; yet when we ask ourselves finally how much we have learnt, we are at a loss. The book would at least gain immensely by the insertion of a full table of contents. It closes, except for a valuable note on the misuse of terms, in a tone which is very characteristic. "The final stage of a nation, whose beliefs are based on a denial of free will, is a collection of individuals undistinguished from one another either by great virtues or great vices, but resembling one another in their respect for money, and well endowed with the instincts which lead to success in making it. A society so constituted would be incapable of further evolution."

H. R. MACKINTOSH.

The Divine Right of Kings. By JOHN NEVILLE FIGGIS. Second Edition, with Three Additional Essays. Cambridge University Press. Crown 8vo. Pp. xii, 406. 6s. net.

The second edition of Mr. Figgis's work is accompanied by three essays produced since 1896, the date of the first impression. One of these, on Erastus and Erastianism, was written in 1900, and according to the author "it shares with the main body of the book the defect of being written beneath the shadow of the Austinian idol". The objection of Erastus to the interfering "discipline" of the Church is well established, but it is curious to find him exalted as a hero of liberty (p. 332). His system, as the author repeatedly points out, is only applicable to a State wherein the sovereign and subjects alike profess the true religion (p. 322). But such a State, even if it existed, would hardly guarantee the rights of individuals; sins and crimes would be identified externally and the civil magistrate would deal with both (p. 334). In any other kind of State Erastus admitted that the right of "discipline" lay in the Church. If we let abstract theory go, and judge by practical effects—as Mr. Figgis is inclined to do in the case of the Anglican clergy under James II. (pp. 211, 282)—we are immediately overwhelmed in difficulties. Who shall judge of the "truth" of the sovereign's religion, and what is to happen in the obvious case when the subject does not agree with his sovereign's view? Erastus himself departed to another city, but to the normal subject this course might not be convenient.

There is, however, much valuable information in the essay, and its matter fully justifies its inclusion in the book, since Erastus's clear conception of sovereignty links him with the upholders of the divine right of kings. The chapter on "*Jus Divinum* in 1646," too, is germane to the main thesis, asserting as it does the fundamental resemblance between the theory of the High Church Party, and that of the Presbyterian zealots. Both sought to make the basis of the State something higher

than mere utility. A keener appreciation of the doctrine of the "two kingdoms" has made Mr. Figgis realise more clearly the value of the Presbyterian revolt against State authority, but he does not like the "eldership," which he regards as a domineering meddlesome force, lacking the dignity but not the stringency of the Roman system. He does not mention the fact, that since Presbyterianism could seldom rely on the sword ("purged" armies were notoriously unsuccessful) its authority must have rested in some measure upon popular consent, and since the "eldership" was elective it is scarcely just to regard the system as a narrow oligarchy.

The essay on "Bartolus and the Development of European Political Ideas" is valuable and contains much information hard to obtain elsewhere, but it appears to be somewhat alien from the main body of the book. To Bartolus "the law was not so much a pursuit as a passion" (p. 349); to the doctors of the Divine Right School, it was secondary to the personality of the sovereign (p. 255), who was beyond the trammels of law altogether (p. 234).

On the whole the new edition of Mr. Figgis's book marks a modification of the writer's views on the divine right of kings; it remains none the less an exposition of the Austinian position. Sovereignty must be a clear-cut, definite thing. It is true that if two forces of equal magnitude act directly counter one to another, no operative force will emerge—merely a state of strain. In any other case may be produced a "resultant" force which will act freely along its own line. Is not "sovereignty" the "resultant" of a whole complex of forces?

J. D. MACKIE.

Philosophy: What Is It? By F. B. JEVONS, Litt.D., Professor of Philosophy in the University of Durham. Cambridge University Press, 1914.

This little book consists of five lectures delivered to one of the branches of the Workers' Educational Association. It is therefore addressed in the first place to those who are engaged in practical pursuits and who have not the time, if they have the inclination, to indulge in that serious study of the problem of knowledge and existence which is the business of the philosopher. Philosophy, in Dr. Jevons's view, comes at times to most, if not to all, men. It comes as a challenge—What does it all mean? What is the good of it all? And so far as a man accepts the challenge, and seriously reflects, and tries to find an answer, he is a philosopher. Personally of course any one may fall back on religious faith, or even on robust health, and satisfy himself that there must be both meaning and value in existence, but if he is really interested in his questions he will not be satisfied till he has understood and answered possible doubts. The purpose of the author is, therefore, to guide the inquirer through what we may perhaps be allowed to call the classical doubts which beset the philosopher and to indicate briefly but surely the path of safe conduct through them.

The first lecture deals with the distinction between philosophy and science. The sciences deal with particular sets of things, philosophy is concerned with the whole. And the demand of our rational nature that the whole shall be good, and that this good of the whole shall be distinct from, and more than, all particular goods, is in the final chapter shown to be the ground of the concept of God, which in Dr. Jevons's view, is the final reconciliation. But to reach this end of philosophy we

have to combat various forms of doubt due to the partial views of experience which obscure its final purpose. The intermediate chapters deal with materialism and idealism and scepticism, and with practical problems such as that of freewill and determinism. Dr. Jevons illustrates the problem of reality by the figure of a curve, on the outer side of which is the external physical universe, consisting, so it seems, of matter in motion, and on the inner side is the mind, consisting of our thoughts, feelings and desires. The materialist affirms that the outer side of the curve alone is real. The idealist denies the independent reality of this outer world and affirms reality in the full sense to that alone which lies within the curve. The sceptic can find no ground for either belief. The answer to the sceptic is that even he must affirm reality, for otherwise even scepticism is groundless. Dr. Jevons has certainly succeeded in packing an extraordinary amount of sound suggestive argument into an excellent, small manual.

H. W. C.

The Applications of Logic: A Text-book for College Students. By A. T. ROBINSON, A.B. Longmans. 4s. 6d.

The purpose of this book is "to treat the whole subject of logic in so far as it bears on the practical work of thinking and of expressing thought; it is intended as a text-book of applied logic, suitable for use as an introduction to the subject with college classes". The exercises aim at cultivating both expression and the critical faculty. The author says: "It would be surprising and disconcerting if this book were found to contain any original thought, but I am not aware that the ideas in it have been anywhere put to quite the same use before". Part I. deals with the Order of Statements; Part II. with the Meaning of Statements; Part III. with the Verification and Proof of Statements. The conclusion, entitled *The Point of View*, contains much practical wisdom. "Study the opposite." "If you are rich learn of the poor. Find the man who stands at the other end of the diameter and make him your schoolmaster."

ARTHUR ROBINSON.

A New Philosophy: Henri Bergson. By EDOUARD LE ROY. Translated from the French by VINCENT BENSON, M.A. Williams & Norgate. 5s. net.

English readers will be grateful to Mr. Benson for rendering this book accessible to them. The first part is a reprint of two articles published in the *Revue des Deux Mondes* in 1912, and entitled "Une Philosophie Nouvelle," and containing a general view of Bergson's method and teaching. The second part, under the title of "Additional Explanations," discusses the theory of immediacy, perception, &c. The conclusion contains some interesting remarks on the alleged incompatibility between Bergson's philosophy and the point of view of ethics and religion; this incompatibility, of course, M. Le Roy denies.

ARTHUR ROBINSON.

Un Romantisme utilitaire. Étude sur le mouvement pragmatiste. Par RENÉ BERTHELOT. *Le Pragmatisme chez Bergson.* F. Alcan. Pp. 358. 7 fr. 50.

In the first volume of his work M. Berthelot dealt with the Pragmatism of Nietzsche and Poincaré, in the second he passes to the Pragmatism of

Bergson. The first chapter sets out the pragmatist elements in *Les données immédiates* and in *Matière et Mémoire*. Bergson has never employed the word "pragmatism" to designate his doctrine, but in his works we find a partial pragmatism, limited to intellectual knowledge, but not extending to knowledge by intuition. In his first book Bergson finds that psychological processes are misrepresented by the application to them of forms of thought moulded on the material world and adopted for their practical utility; in *Matière et Mémoire*, perception, memory and intellect are each and all held to be determined in their nature by practical needs. M. Berthelot devotes his second and third chapters to tracing the pragmatistic element in *L'Évolution Créatrice*, and his fourth to a comparison of the pragmatism of Poincaré, Nietzsche and Bergson. Nietzsche differs from Bergson by his radical determinism.

The sources of Bergson's pragmatism are found in Ravaisson (doctrine of habit) and in Schelling (intuition which does not sacrifice science) (chap. v.); his views on instinct, life, and contingency are traced directly to Shaftesbury and Hutcheson, and indirectly to nearly every philosopher on record (chap. vi.). Chapter vii. brings this historical investigation to a close with an inquiry as to the influence of Speucer on Bergson. The conclusion is that the characteristic doctrine of Bergson is *durée réelle*. "C'est en fin la notion de cette durée qui donne sa signification spéciale à l'opposition établie par lui entre l'intuition et l'intelligence, c'est-à-dire à ce qu'il y a de plus caractéristique dans son pragmatisme." One may be permitted to doubt whether much is gained in reaching this conclusion by way of Heraclitus, Plotinus and the rest. The remainder of M. Berthelot's book is occupied with a detailed criticism of Bergson's views on mathematics, logic, physics, biology and psychology. Most of these views are held to be either not new or not true, or both old and untrue, except the doctrine of "real duration". "Je crois cependant qu'il y a une idée foncièrement nouvelle dans sa doctrine. . . . Il paraît vrai de dire qu'il existe ce qu'on peut appeler un temps psychologique ou un temps sensible, différent du temps mathématique" (p. 350). Of this conception M. Berthelot thinks something may be made when corrected and interpreted by a rational idealism. But he thinks Bergson has made an ambiguous use of the notion of immediacy, and has failed to establish the possibility of an intuition quite cleared of the work of intelligence.

It is to be regretted that M. Berthelot permitted himself to class Berkeley and Bergson among "les petits maîtres de la philosophie". Every condemnation of this sort certainly condemns somebody. But who is condemned here? Berkeley and Bergson—or M. Berthelot?

ARTHUR ROBINSON.

Die Antithetische Structur des Bewusstseins. Grundlegung einer Theorie der Weltanschauungsformen. Von Dr. PAUL HOFMANN, Privatdocent an der Universität Berlin. Berlin: Georg Reimer. Pp. xviii, 421. M. 8.

This ingenious study, dedicated to Benno Erdmann, is mainly concerned with the conditions of the possibility of consciousness. Any consciousness, we can say at the outset, must be the unity of a manifold; and the unity must be such as to give the manifold at least some of its determinateness. Dr. Hofmann goes further than this. The unity must somehow be a scheme which gives each member of the manifold its own relative self-existence, and at the same time relates it to the rest of the manifold. From this the consequence is drawn, in my opinion, wrongly, that the members of the manifold, whatever other characters they may possess,

must have each a determinate 'position' in one or more 'forms of order'. Position in such a form of order gives the manifold sufficient unity to make consciousness at its lowest level possible. When the writer comes to deal with our actual empirical consciousness, he shows space and time to be such forms of order, and the rest of his discussion makes it clear that he regards space and time as essential to our consciousness of anything whatever. This means, unless I have misunderstood him, that he would reject the suggestion that it is possible for our consciousness to deal with anything into which space and time do not enter as relevant elements. I do not agree with this. In Arithmetic, and indeed in all the formal sciences, you seem to have a unity where the various parts are definite, and definitely separated off from one another, not by any relation to time or space, but by their relation to the science as a whole. This latter relation does not constitute a "form of order" in Dr. Hofmann's sense. While I should insist that experience is throughout continuous with experience in time and space, I should be inclined to deny that space and time are necessary conditions of all experience, in Dr. Hofmann's sense.

If, however, we admit Dr. Hofmann's account of the general nature of the unity involved in consciousness, then it is clear that these conditions would so far be satisfied, as the author suggests, in an experience whose only form of unity was space alone or time alone. That is to say, an experience which held various sense-data—touches, sounds, etc.—together by means of space, or one which held them together by means of time (without any categories whatever) would provide a unity sufficient to satisfy Dr. Hofmann's conditions. Thus, if our experience had possessed only one of these forms, there would be, it seems, no need for any further development. But the whole trouble arises for us, because we have the two forms. For the unity which we have when we confine ourselves to either form breaks into bare multiplicity as soon as we try to bring in the other form. The difficulty of bringing these two forms to the unity demanded by consciousness provides the thesis of this book.

The predominance which one or other of these forms tends to assume over the other comes out clearly directly we examine our experience on the purely perceptive level. This experience may easily be regarded as an objective unity if we consider merely what there is in space at any given moment of time; but then there is no way of connecting the various cross-sections at successive moments. It is a unity if we take what happens in time at any given point of space, but then there is no way of connecting the various temporal cross-sections at different points of space. Thus, from the first point of view we have to regard any temporal connexions, from the second point of view any spatial connexions, as purely subjective. Is it possible to take up a point of view from which both space and time are objective? It is, replies Dr. Hofmann, but to do it consistently will take us very far beyond perception. For the general difficulty is this: If the space unity is objective, the time unity is subjective; and thus time is "in" the I, which is itself "in" space. If the time unity is objective, the space unity is subjective; and here space is in the I, which is itself in time. But if we endeavour to regard both as objective, we have to reconcile all these characteristics; space and time must each be capable of being regarded as both subjective and objective, and the I, as at once a single object in space and time, and as having space and time in it. In this way Dr. Hofmann leads us to what for Kantians may be regarded as the problem of problems.

The justification for this particular mode of approach is found in the light it throws on the various erroneous philosophies, which are shown to lay undue stress either on the spatial point of view or on the temporal.

Truth for Dr. Hofmann lies in reconciling both these points of view, and in accepting whatever is necessary to do this. Each of these aspects is shown to be a partial description of actual experience on the lowest level, which consists of a self which is in both time and space as a given among other givens, and relatively to which, as the "here-now," all other givens are ordered. Such an empirically given self he calls the "objective-subject". The here-now of the self is thus the point round which everything in the experience of the self is arranged. On this level, then, experience would consist of a given multiplicity (not merely subjective), brought together into the space-time unity of the self. As unifying givens in different times, the self would be describable as a substance. There would be no other substance.

Although such an experience is, as Dr. Hofmann says, unbegreifbar, rätselhaft, yet it contains all that is necessary. Our inquiry, then, as to the conditions of the possibility of an experience which contains both time and space as objective, stops at this point. The categories and principles which are found in developed experience are not necessary for consciousness; they only become necessary when we endeavour to obviate the difficulties to which the elementary experience gives rise. The process is discussed by Dr. Hofmann at length.

I have indicated briefly what I take to be the fundamental point of view of the book, omitting much that is necessary to the proper understanding of its main position. The book is dominated throughout by the antithesis between the spatial and the temporal points of view, with the result that the reader is left with the feeling of a lack of true perspective. This feeling is increased by the subjective turn which is given to many of the discussions. The investigation into the conditions of the possibility of consciousness (if such an investigation is possible at all) is beset with many pitfalls, which Dr. Hofmann has not always succeeded in avoiding.

The format of the book is excellent. The book is written in clear and simple German, and is supplied with a very full and adequate analytical summary in addition to the index.

L. J. RUSSELL.

Rudolf Eucken: His Philosophy and Influence. By MEYRICK BOOTH, B.Sc., Ph.D. (Jena). London: T. Fischer Unwin, 1913. Pp. xxviii, 207. Price 3s. 6d. net.

This little book begins by making rather a bad impression, but it captures the reader's interest, and ends by deserving a distinctly favourable judgment. The bad start is almost wholly due to the 'Introductory Historical Sketch' (pp. xi-xxviii), the purpose of which is to trace the treatment of the relation of Nature and Spirit in the history of philosophy down to Eucken. It is a 'sketch' in the worst sense, being both thin and inaccurate. *E.g.*, Protagoras is classed with Democritus as giving 'to the Ionian philosophy a thoroughly materialistic turn' (p. xiv); the main impression left of Aristotle is his alleged 'devotion to the world of external reality' (p. xvii), with not a word about *θεωρία* or *νόησις νοήσεως*; and Kant is said to have held that 'reason was concerned with the natural world only' (p. xxv). Where, one wonders, has Mr. Booth collected these astonishing views? Seeing that he professedly writes for 'those who have made no special study of philosophy or theology' (Preface), this sketch comes near being mischievous.

But once we are past this unfortunate introduction, the book improves rapidly. The first chapter is mainly biographical; the next four give a

clear and straightforward statement of the main points of Eucken's philosophy, which in an admirably brief and lucid summary on page 52 are given as follows: '(1) The break with the merely natural life; the negation without which there can be no spiritual experience. (2) The recognition of an independent but indwelling spiritual life; the new birth which is the beginning of all positive religion and morality. (3) The free, active and personal appropriation of the spiritual life. (4) The organisation of human life and civilisation in the interests of the spiritual life and subject to its norms: *The overcoming of the antithesis between spirit and nature.*' Incidentally, the opposition of Eucken's 'Activism' to Naturalism, Intellectualism, Voluntarism, Pragmatism is duly explained; also the emphasis on concrete life-movements as against abstract thought-processes; and the nature of truth as 'a spiritual creation, an advance, a self-formation of life as a whole' (p. 35).

The bulk of the book (chaps. vi.-xii., pp. 53-204) is occupied with applications of Eucken's principles to some of the central problems of modern life. These, slight though they are, are by far the most interesting chapters. Of course, the topics dealt with, Civilisation, Socialism, Education, Religion, covering in detail such questions as the dwindling birth-rate and eugenics, the spiritual effects of the introduction of machinery, the over-pressure of modern life, the practicability of the Socialistic state, poverty, the women's movement, the control of education by a secular state, present-day tendencies in education, the place of Christianity and Christian Churches in the modern world—all these, and many more, are intrinsically of supreme interest. But there is an interest beyond these. That Eucken would always appeal to the temper of the moral reformer was, of course, clear. But we must be grateful to Mr. Booth for having here shown us strikingly, in his own person, how a man keenly alive to many of the mistakes, abuses, and evils of modern civilisation draws his inspiration from Eucken's philosophy—applies it and finds it work. I note, amongst other things, a *propos* of an argument about the dependence of spiritual movements on population, a curious calculation (pp. 103, 104) according to which, owing to limitation of child births, the Protestant Middle Classes in England may practically die out in four to five generations, whereas in the same time the corresponding Roman Catholic population, reproducing itself without limitation, will treble. On page 151, Mr. Booth is, of course, quite sound in his apparent paradox that many a modern socialist is 'at heart a pure individualist'. It is rather more far-fetched to interpret the existing examination system, and the preference for office over agricultural work, as both symptoms of the vice of Intellectualism in modern life (p. 85). That Eucken has always championed the cause of the lesser nationalities, and in particular has written stirring appeals on behalf of Finland (p. 144), is certainly a fact worth remembering in view of his participation in a more recent manifesto.

But what, after all, is it in Eucken's philosophy that makes it the inspiration of life to the author? Is it anything that will give more precision and substance to what Dr. Bosanquet has called Eucken's 'deluge of ethico-religious rhetoric' (*Quarterly Review*, April, 1914)? The answer, as far as I can see, must be 'No'. What appeals to Mr. Booth, because it voices the temper in which he approaches life, is the vindication of the reality of the spiritual life in which man is rooted, the moral combat needed to realise this life inwardly in oneself, the reformer's zeal and hope of a 'reconstruction of our entire life and civilisation upon a positive spiritual basis'. The attraction lies in the demand for a 'self-renewal,' a 'heightening' of life, a 'rebirth' as in religious conversion; and in the forward-looking attitude towards a betterment of the world

('progress') by human activity. But however much one may sympathise with this attitude—and who would not?—two questions find no answer. In the first place, Mr. Booth brings us no nearer to giving Eucken's 'spiritual life' a positive content, something definite to grasp. This is true of the past: Eucken's analysis of historical 'syntagmata' moves wholly in generalities. It is no less true for the future, if we ask for definite guidance as to the lines of reform. *E.g.*, in his book, *Can We Still Remain Christians?* Eucken demands a far-reaching modernisation of Christian dogma, but his positive hints as to the character of this reconstruction are singularly scanty and vague. To Mr. Booth the 'spiritual life' is full of meaning, I should guess, because he identifies it with the teaching of Protestant Christianity. As for the rest, his criticisms of social abuses and dangers can, of course, be largely supported by quotations from Eucken, because Eucken's statements are so conveniently general, but much the same ideas have been voiced by many others who have never heard of Eucken at all. Eucken encourages reformers to reform, but he gives them next to no positive directions. His call to effort and action is stimulating, but he does not tell us, except in vague adumbrations, what this spiritual life is of which we must possess ourselves. He points out the promised land from afar. He does not lead us there.

And in the second place, Mr. Booth neglects the speculative difficulties of Eucken's position altogether—especially the contradiction between the conception of progress by moral effort and that of a spiritual reality which is eternal and exempt from change. Granted that man is both *in* time and *beyond* it, and that the Eternal manifests itself in his life as a struggle from lower to higher, surely we cannot attribute any 'advance' to the Spiritual Reality *quâ* eternal? Past and future, progress and betterment, are relative to human life in its moral aspect: it is surely meaningless to make them features of the Absolute—even though we call it God.

R. F. ALFRED HOERNLÉ.

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VIII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xxiii., No. 5. **H. R. Marshall.** 'Responsibility.' [If a man is what he now is in virtue of his whole past, there is no such thing as irresponsibility. This view clears the way for a treatment of accountability, crime, punishment.] **W. Fite.** 'Pragmatism and Truth,' II.—[If the facts of science are responses, the expression of underlying motives, then, while they remain independent, we may come to agreement with them, just as we come to agreement with independent fellow-men.] **G. W. Cunningham.** 'Bergson's Conception of Duration.' [Bergson admits the anticipatory aspect of consciousness which, if supplied, changes duration from a heterogeneity to the elaboration of a growing and ripening homogeneity.] **N. Wilde.** 'The Pragmatism of Pascal.' [Pascal finds rationalism insufficient, relies on experience, recognises active factors in belief, emphasises custom, appeals to religious experience as the source of religious truth.] **Reviews of Books. Notices of New Books. Summaries of Articles. Notes.**

PSYCHOLOGICAL REVIEW. Vol. xxi., No. 5. **S. W. Fernberger.** 'On the Elimination of the Two Extreme Intensities of the Comparison Stimuli in the Method of Constant Stimuli.' [The two extremes of the scale may be eliminated without marked change of the measure of sensitivity or the point of subjective equality. Subjective attitude influences the interval of uncertainty.] **R. A. Cummins.** 'A Study of the Effect of Basket Ball Practice on Motor Reaction, Attention and Suggestibility.' [The game favours concentration and suggestibility, but breaks up control of motor reaction.] **J. Weidensall.** 'Psychological Tests as Applied to the Criminal Women.' [Forty per cent. of the records probably resemble those of working women; both classes stand below the college girl.] **M. F. Washburn.** 'The Function of Incipient Motor Processes.' [Argues that the initiation of a specific motor response, with attention to a given stimulus, induces activity in sensory centres most directly connected with that response through the previous occurrence of their own response together with it, and that this activity is accompanied by images.] **Discussion. G. v. N. Dearborn.** 'The Inhibitory Factor in Voluntary Movement.' [Critique of Langfeld; we must not ignore the inhibitory kinesthetic nature of the cortex.]

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS. xi., 7. **A. R. Schweitzer.** 'Some Critical Remarks on Analytical Realism.' [A criticism by a pragmatist mathematician of Russell and E. G. Spaulding's essay on analysis in *The New Realism*. Charges Spaulding with not discriminating "the conceptual constructive systems from the crude percepts which led to them" in the case of space, continuity, time and motion. Charges Russell with a bias in favour of asymmetrical relations which is not mathematically justifiable, and both with arbitrariness and uncertainty in their accounts of relations.] **T. S. Moore.** 'Value in Relation to Meaning and Purpose.' [Meaning being

the genus, divided into the species logical or cognitive and affective-conative meaning, 'purpose and value are subspecies, conative and affective.'—xi., 8.

W. H. Sheldon. 'A Definition of Causation.—I.' [Ignoring Hume, the author proposes to study causation by "ascertaining the logical structure of the typical events" in Mechanics, the Properties of Matter and Electricity.]

M. R. Cohen. 'Rule v. Discretion.' [It is a form of the issue 'rationalism v. empiricism'.]

I. Babbitt. 'The Modern Spirit and Dr. Spiugarn.' [A reply to a review in x., 25.]—xi., 9.

H. C. Brown. 'The Work of Henri Poincaré.' [A useful appreciation and summary.]

A. Balz. 'Music and Emotion.' ["There is a general analogy between the sounds which call up a certain type of emotion and the tendencies in the vocal sounds that commonly occur in the expression of that same emotion."]

J. S. Moore. 'The System of Transcendental Values.' ["The final step in the interpretation of the physical, mental and social consists in their correlation and unification as still partial expressions of an Absolute Being."]—xi., 14.

W. H. Sheldon. 'A Definition of Causation.'—iv. [Examines 'causation in the field of electricity,' and sums up. His 'answer to Hume' is that given two terms in a certain relation, "the rest of necessity and by pure deduction follows". Hume's mistake was to try to derive necessity from one term, and the meaning of causation is "two facts or events such that one precedes the other, temporally or logically, and the second is defined by the first, i.e., the same as the first; a second case of it with added differences".]

W. C. Gore. 'Externality and Inhibition.' [The truth in the neo-realistic contention that objects are not affected by being known, is that inhibition is an essential aspect in knowing. But the arrest is only temporary, and leads to further development.]

W. T. Bush. 'Concepts and Existence: A Reply to Prof. Pitkin.'

W. B. Pitkin. 'Rejoinder to Prof. Bush.' [(Cf. xi. 5, x. 25.) Bush wants to know how, if mathematical entities are regarded by realists as non-existential, they can also imagine they can see straight lines, etc. Pitkin replies that the difficulty had not occurred to him, and admits that the geometrical properties are not all perceived; but they are 'present' in the real complexes. He does not appear to be aware that he is merely reverting to Plato's *παρρησία* metaphor to express the connexion between universals and particulars.]—xi., 15.

A. W. Moore. 'Isolated Knowledge' [Anacute and detailed criticism of Russell's *Problems of Philosophy*, which attacks especially the failure to explain the 'sharing' of Platonic universals and the possibility of error.]

H. L. Hollingworth. 'Report on New York Branch of the American Psychological Association.'—xi., 16.

A. O. Lovejoy. 'Relativity, Reality and Contradiction.' [Criticism of M. R. Cohen's attempt (cf. x., 2) to get over the difficulty that for realism "all perceptual experience, hallucinatory or otherwise, is equally objective," by conceiving every quality as relative to a system, and so as not really contradicting any qualities extrinsic to that system. In one sense of 'relativity' however "his disproof of the subjectivity of the secondary qualities amounts to a proof of the subjectivity of all qualities: in the other it fails to abolish the distinction between subjective and objective qualities. For the former would then be qualities which are functions of the object's relations to diverse percipients. Even if the 'contradictory qualities' be taken as subsisting between the objects themselves no tenable sense can be given to the doctrine, and a cleavage among neo-realists is in consequence appearing."]

G. A. Tawney. 'Transcendentalism and the Externality of Relations.' [A criticism of Russell which "finds in his theory of knowledge the same shadowy ambiguity as to the terms entering into relations that one finds in the philosophy of Green".]

G. A. Feingold. 'The Fitness of the Environment for the Continuity of

Consciousness.' [Experiments (with picture cards) to determine the optimum mixture of homogeneity and heterogeneity for the best mental life. The ratio found was 30 : 70.]

ARCHIVES DE PSYCHOLOGIE. Tomo xiv., No. 3. **J. Kollarits.** 'Observations de psychologie quotidienno.' [(1) The visual images aroused by thought of unknown persons and places depend on style, views, nationality, associations of names, etc. (2) Certain automatic or awkward movements may be due to other than Freudian factors.] **J. Kollarits.** 'Contributions à l'étude des rêves.' [There are pure fear-dreams, as well as Freud's wish-dreams. Freud's sexual symbolism is not universal.] **R. de Saussure.** 'Le temps en général et le temps bergsonien en particulier.' [The subjective is quality, the objective quantity; time may be regarded under either aspect. Real quantities (time, force, space,—which appear in that order) are continuous; intellectual quantity or number is discontinuous.] *Recueil des faits: documents et discussions.* **C. Werner, R. de Saussure.** 'IX^e Réunion des philosophes de la suisse romande.' [Discussion of preceding paper.] **E. Cramausse.** 'Intelligence d'un lapin?' [Protection of a burrow against rain.] **E. Claparède.** 'De la représentation des personnes inconnues, et des lapsus linguæ.' [Rôle of suggestiveness of names, coloured hearing, casual association.] Notes diverses.

REVUE DE MÉTAPHYSIQUE ET DE MORALE. Mai, 1914. **D. Roustan.** 'La Morale de Rauh.' [Rauh desired an experimental ethics. So far he agreed with the sociologists, but he refused to recognise actual prevalence in society as the sole test of a moral opinion. It is no objection to the experimental method that moral hypotheses are not verifiable by *sensible* experience, for there are orders of reality (e.g. pure mathematics) that have to be otherwise cognised. A moral hypothesis is tested by opposing it in thought to varied conditions and seeing if we still accept it. Rauh's epistemology approaches that of the Chicago School, but he is clearer as to what is meant by the relative independence of reality, and is not tempted to take momentary success as an ethical criterion.] **M. Caullery.** 'La Nature des Lois biologiques.' [Rejects vitalism as needless and discusses a number of cases where it seemed plausible and was found on further investigation to be unnecessary. The only serious difficulty at present for a purely mechanistic theory is the origin of living matter; and it were rash to consider this permanently insoluble.] **É. Bréhier.** 'Philosophie et Mythe.' [All philosophies that wish to leave room for human action contain a mythology (defined as an ideal history of the past and future of the individual or race). The three main myths have been those of a plurality of lives, of salvation by grace, and of a future social Utopia attainable by human effort. Myths, though introduced for the sake of action, impede it if taken too concretely. The man of action merely uses an abstract schema of myth to direct his course.] **E. Laskine.** 'Les Transformations du Droit au XIX^e Siècle' (concluded). [The notion of legal responsibility for damage has been greatly widened. In employer's liability for accidents to their employees and to others the notion of culpability tends to be replaced by that of a risk normal to the industry which must be borne by the *entrepreneur*. This principle is less clear in damages due to public works. The complete substitution of risk for culpability would be morally retrograde and socially dangerous. We must not exaggerate the gradual limitation of the rights of individual ownership as against the public. Many communal rights in agricultural land have been abolished and new forms of private property (e.g. copy-rights and patents) have been evolved. It is impossible to find any one

general trend in modern legislation.] **Ch. Dunan.** 'Le droit de l'Électeur.' [The rights of citizens demand that all should have representatives and not merely those whose views are in a majority. The rights of the State demand that votes shall be weighed as well as counted. The former can be met by Proportional Representation; no satisfactory way of meeting the latter has yet been offered.] **New Books. Reviews and Periodicals.** July, 1914. **G. Belot.** 'La Valeur morale de la Science.' [A conflict is possible between the scientific ideal of truth at all costs, and social ideals to which some truths may be dangerous. Science may depend for its existence on society, but scientific truth is not identical with what prevails in a society and may conflict with it. The conflict cannot be solved by suppressing science as antisocial, for society would lose materially and morally by the suppression of science. The only possible reconciliation is to replace in society the bonds of tradition by those of reason; and how far this can be done remains to be seen.] **E. Gilson.** 'L'Innéisme cartésien et la Théologie.' [St. Thomas held that there could be no *a priori* proof of God's existence because the necessary connexion of the human mind with a body prevents its having an innate idea of God, though it has innate capacities for knowledge about him. Descartes' sharp separation of body and mind forced him to reject St. Thomas's *phantasmata* and to find some new theory of knowledge that should allow an *a priori* proof of God's existence. In spite of St. Thomas the doctrine of innate ideas had always had some credit among the orthodox. Descartes would have met with something approaching it in Suarez, and it was definitely revived at his time by Mersenne and others of his orthodox friends as a defence against a growing atheism.] **G. Dwellshauvers.** 'Du Sentiment religieux dans ses Rapports avec l'Art.' [Only a certain class of works of art produces an emotion closely connected with that of religion. These need not have religious subjects, but must reveal directly the inner harmony of the universe as it is felt by religious persons. Such works make an eternal appeal.] **G. Aillet.** 'La Coutume ouvrière d'après M. M. Leroy.' [Leroy's book tries to show the connexion between modern Syndicalist ideas and those of other times and classes. He tries to avoid external criticism and to give a perfectly objective account of the system of rights and duties which has grown up within French trades unions. Some of these may shock the middle classes, but they will be found when studied to possess a certain internal consistency and to present analogies to some modern developments of State law.] **G. Siméon.** 'Le Sentiment patriotique.' [The object of this sentiment is not directly one's race or native soil, but the State institutions which one holds to be realised or realisable within the boundaries of one's country and not realisable if those boundaries be seriously invaded. Thus equally patriotic people are fighting side by side for different and incompatible ends, but the maintenance of the national territory intact, being a necessary means to all their ends, provides the fictitious appearance of a single object.] **New books. Reviews and Periodicals.**

ZEITSCHRIFT FÜR PSYCHOLOGIE. Bd. lxx., Heft 5 und 6. **A. Gelb und H. C. Warren.** 'Bibliographie der deutschen und ausländischen Literatur des Jahres 1913 über Psychologie, ihre Hilfswissenschaften und Grenzgebiete' [2,740 titles, as in the corresponding *Index*; 1912 had 3,229].—Bd. lxx., Heft 1 und 2. **K. Reichardt.** 'Über den Vergleich erinnelter Objekte, insbesondere hinsichtlich ihrer Grösse.' [Experiments with coloured rectangles.] Besides the numerical results, the author gives details regarding the images, the processes of impression and comparison, etc. Judgment may be based, according to direction of attention, upon

area or upon form.] **L. Edinger.** 'Zur Methodik in der Tierpsychologie: i. Der Hund H.' [It is important in animal psychology, as it is in psychiatry, that the history and *status præsens* of the individual under observation be known. Characterisation of a collie bitch.] **A. Aail.** 'Der Traum: Versuch einer theoretischen Erklärung auf Grundlage von psychologischen Beobachtungen.' [The dream-consciousness gains by the absence of sensory distraction, loses by the lack of sensory support; hence the disturbance of time, space, self, judgment,—though the dream is not illogical; hence also the affective, imaginative, symbolic character of the dream. Comparison of dream with fairy tale.]

ARCHIV F. D. GESAMTE PSYCHOLOGIE. Bd. xxxii., Heft 3 und 4. **E. Wentscher.** 'Die Aussenwelts- und das Ich-Problem bei John Stuart Mill: eine Studie zur Assoziationspsychologie.' [Mill was true to his method in his treatment of the problem of an external world; but his self-psychology results in a persistent, self-identical subject gifted with memory.] **P. Schwirtz.** 'Das Müller-Lyersche Paradoxon in der Hypnose.' [Experiments with suggestion show that the illusion is a matter of bare perception.] **V. Benussi.** 'Gesetze der inadäquaten Gestaltauffassung; die Ergebnisse meiner bisherigen experimentellen Arbeiten zur Analyse der sogenannten geometrisch-optischen Täuschungen (Vorstellungen ausser sinnlichen Provenienz).' [Condensed report of the author's researches since 1902.] **A. B. Fitt.** 'Grössenauffassung durch das Auge und den ruhenden Tastsinn.' [Where the space-limen is of a certain magnitude, cutaneous distances are rightly estimated; where it is larger, they are underestimated; where it is smaller, overestimated.] **F. M. Urban.** 'Über einige Formeln zur Behandlung psychophysischer Resultate.' [Wirth's formulas are useful, but other constants are required.] **S. von Maday.** 'Begriffsbildung und Denken beim Menschen und beim Pferde.' [Allows the horse germinal concepts (*anschauliche Sachvorstellungen*) and germinal thought, or an activity of imagination operating by trial and error.] **W. Poppelreuter.** 'Bemerkung zu dem Aufsatz von G. Frings "Über den Einfluss der Komplexbildung auf die effektuelle und generative Hemmung".' Literaturbericht. [Tichy on Krcel's *Psychologie*.] Bd. xxxiii., Heft 1 und 2. **M. Scheinermann.** 'Das unmittelbare Behalten im unermüdeten und ermüdeten Zustände unter besonderer Berücksichtigung der Aufmerksamkeitsprozesse.' [Experiments upon immediate memory for letter-series (visual and auditory presentation) in fatigued (natural and induced) and fresh states. The quantitative results are supplemented by notes on feeling, attention, ideational type, etc.] **W. Freytag.** 'Bemerkungen zu Leibnizens Erkenntnistheorie im Anschluss an Caturals Werk *La logique de Leibnitz d'après des documents inédits* (Paris, 1901).' **J. K. Kreibitz.** 'Beiträge zur Psychologie und Logik der Frage.' [General characterisation of the question; species and particularities; the views of earlier writers. Psychologically, we begin with an historically conditioned conscious attitude (the *nativum*); a supervening perception or idea leads to an inhibition of the course of ideas, with unpleasantness and an act of 'will to know' (the *rogativum*); finally there is pleasant resolution (the *responsivum*).] **E. Hurwicz.** 'Der psychophysische Parallelismus und die Assoziation verwandter Gefühle.' [The reinforcement or pathological areal of emotion by its physiological (expressive) factor imperils the doctrine of parallelism.] **R. Beck.** 'Studien und Beobachtungen über den psychologischen Einfluss der Gefahr.' [Dangerous exercises are recuperative because they demand concentration of attention and thus divert the mind from care or routine.] 'Akademische Preisaufgabe für 1917 aus dem Gebiete der Philosophie.' Literaturbericht. [Betti

on Gemelli's *Metodo degli equivalenti*.] Referate. A. Kronfeld. 'Zur Abwehr.' [Against Kastil.]

"SCIENTIA." RIVISTA DI SCIENZA. Vol. xiv., No. 2, September, 1913. A. Mieli. 'Le teoria delle sostanze nei presocratici greci. 1a Parte: Dalle primo speculazioni fino ad Empedocle.' [Short examination of the theories held in Pre-Socratic times to explain the continual transformations of the various substances in nature. Many of the opinions will be discussed in a book shortly to be published by the author. The present article first deals with the first Greek thinkers (Thales, Anaximander, Anaximenes, Heraclitus, Pythagoras, Parmenides). The problem was, after them, found to be: All transformations being illusory appearances of the senses, to seek what is true and stable behind all these false phenomena. The solution of the problem was strangely enough obtained, for the greater part, by the appropriation of a doctrine which had failed in geometry,—the doctrine of the Pythagoreans that geometrical figures were sums of points. This doctrine was destroyed by the discovery of incommensurables and by the reasoning of Zeno. Future mathematicians built up geometry on new and more secure bases; and the fundamental conception of the theory of composition of points passed into the theory of the composition of bodies. Three directions then presented themselves: (1) Empedocles's theory which admits of a limited number of primitive substances which are invariable and, by their mixture, make very different substances appear; (2) the theory of Anaxagoras which considers all substances as existing from the beginning and independently of one another, and makes the appearance of that which predominates depend on phenomena of association and dissociation of similar elements; (3) the theory of Leucippus and Democritus which postulates one and one only original element and explains the various aspects which it presents by the fact that the atoms are susceptible of receiving different forms or of having different relative positions. The fact is emphasised that these theories are connected with Parmenides's idea of the invariability of the true being. The doctrine of Empedocles is examined in some detail: it was the one most generally adopted by antiquity, by the middle ages, and even by the theoretical chemistry of the nineteenth century. The article will be followed by another.] Th. Moreux. 'Où nous entraîne notre soleil.' [A sketch of the history and results of the question as to the proper motion of the fixed stars, up to quite modern times.] A. J. Herbertson. 'The Higher Units. A Geographical Essay.' ['If the geographical region is a macro-organism, then men are its nerve cells. In some of the huge regional creatures this collection of human units is more or less amorphous, a scattered mass of undifferentiated nerve cells, an unimportant part of the whole. In others he is well organised and specialised as an essential part of it, having set his mark all over its surface, in fact he is a sort of a higher nervous system in it. But he is no more, though no less, to be considered apart from the rest of these leviathans than the nervous system is to be considered apart from the rest of the organism of which it is an essential element. For purposes of investigation it is often necessary to consider one element alone; but for the full understanding of the organism, or of the macro-organism, the nervous system, or the human society, cannot be separated from it. That such regional leviathans exist, and that we each are a part of one, is the theme of this paper. The personality of such leviathans, like the personality of men, is another question.'] E. Rignano. 'L'evoluzione del ragionamento. IIª Parte: Dal' intuizione alla deduzione.' [In the first part of this article, the author had said that parallelly to the passage from concrete forms to forms more or more

abstract, and in consequence of this passage, reasoning acquires an increasing complexity and an increasingly extensive capacity of application. It is with this aspect of the evolution of reasoning that this part is concerned. A further article dealing with the higher forms of reasoning is promised.] **S. Freud.** 'Das Interesse an der Psychoanalyse. I. Teil: Das psychologische Interesse.' [Psycho-analysis is a medical method which tries to cure certain forms of nervous disease by a psychological technique. This article explains, by a series of examples, what the author has claimed for the new science.] **H. Jacobi.** 'Was ist Sanskrit?' [The article studies the importance and the position of Sanskrit in the evolution of language and Indian civilisation.] Critical note: **S. Jankelevitch.** 'Les chevaux pensants d'Elberfeld.' Book Reviews. General Reviews: **S. Feist.** 'La question du pays d'origine des Indo-Européens.' Review of Reviews. Chronicle. Supplement containing French translations of German, Italian and English articles. Vol. xiv., No. 3, November, 1913. **A. Mieli.** 'Le teorie delle sostanze nei presocratici greci. 2a Parte: Anassagora e gli atomisti' [In this second part, the other doctrines are considered. The theory of Anaxagoras has not been understood until lately, and has, at least when developed, a quasi-modern signification.] **J. C. Kapteyn.** 'On the Structure of the Universe.' [Considers the questions as to what the discovery of what is called "star-streaming" has done and what it promises to do for the solution of, (1) the problem of the distances of the stars from one another on the line of sight; (2) the problems of the history of the stellar system. A good beginning of the work in question has been made.] **W. Mecklenburg.** 'Die Lehre von den Elektrolytlösungen.' [A somewhat technical article, but the subject is of philosophical interest as showing how two currents of investigation, which had seemed quite independent of one another, were united in a higher synthesis.] **S. Freud.** 'Das Interesse an der Psychoanalyse. 2 Teil; Ihr Interesse für die nicht psychologischen Wissenschaften.' [Its interests from the points of view of the sciences of language, philosophy, biology, the history of evolution, the history of civilisation, the fine arts, sociology, and pedagogy.] **C. Guignebert.** 'Le dogme de la Trinité. 1ère Partie: Les triades primitives et la formule baptismale.' [Shows, on a particular example, how the fundamental beliefs of a religion originate, develop, are fixed, weaken, and die.] Critical note: **A. Van Jennepe.** 'Les lacunes de l'ethnographie actuelle.' Book Reviews. General Reviews: **H. Piéron.** 'L'évolution de l'opinion scientifique actuelle sur la question du mimétisme.' **W. Oualid.** 'Revue annuelle d'économie.' Review of Reviews. Chronicle. Supplement containing French translations of German, Italian, and English articles.

IX.—NOTES AND NEWS.

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 4th October, 1914.

SIR,

With reference to Mr. Paton's interesting review of my translation of B. Croce's *Filosofia della Pratica*, I think it would be fair to me if Mr. Paton would be so good as to indicate where I have ignored 'grammar' or 'sense'.

The literary elegance of the translation has been extolled in the *Times*, and while pointing out one or two printer's errors of punctuation and possible ambiguities of phrase, quite comprehensible in a work of such length, Mr. Bosanquet in the *Hibbert Journal* describes it as "fluent and readable". I mention these two instances from many similar against which Mr. Paton's view of the translation stands, so far as I know, alone, looking in consequence very like a wilful misstatement of fact.

Hoping that in justice to the first English discoverer and translator of a masterpiece you will insert these lines,

I remain,

Your obedient servant,

DOUGLAS AINSLIE.

My judgment upon Mr. Ainslie's translation was carefully formed and deliberately expressed. I am sorry to hurt his feelings, but I am perfectly convinced that my judgment is sound, and I cannot discuss the opinion of other reviewers, still less the needless insinuation that I have been guilty of wilful misstatement.

Restrictions of space prevent me from giving a selection of his worst mistakes, but I will give one glaring example. I choose it because it makes nonsense of Croce's most fundamental doctrines, and if Mr. Ainslie is capable of this kind of error, there are few kinds of error of which he will not be capable. It will repay careful study, and, in the necessary absence of greater detail, will at least go far to suggest that there are probably good reasons behind my criticism.

Croce, *Filosofia della Pratica*, page 73.

"So, infatti, dalla filosofia teoretica sappiamo che la vera e propria conoscenza si assolve nel ciclo di arte, filosofia e storia, e che, fuori della conoscenza dell' universale, che ci dà la filosofia, e di quella dell' individuale, così ingenuo come riflesso, che ci dà l'arte e la storia, non vi ha altro modo di conoscenza ; . . ."

This is a clear, simple, straightforward statement of Croce's most fundamental principles in regard to knowledge. Consider what it becomes in the hands of Mr. Ainslie, page 103 of his translation.

"If indeed we know that the true and proper knowledge of theoretical philosophy is resolved into the cycle of art, philosophy, and history, and that we possess no other means of knowing the individual, both ingenuous and reflective, outside the knowledge of the universal given by philosophy, . . ."

This is obviously not a temporary lapse. It is comparable to the work of a schoolboy looking up words in a dictionary and setting the results down anyhow. It ignores grammar and it ignores sense. It is in fact unmitigated nonsense. To read Croce through this medium is to get a distorted view of his whole philosophy, and, sharing, as I do, some of Mr. Ainslie's enthusiasm for the original, I am all the more obliged to reaffirm a criticism which I hold to be perfectly just.

H. J. PATON.

By the courtesy of the Editor I am enabled to make one correction of my article "Objectives, Truth and Error," in the last number of *MIND*. I was unfortunately unable to return the proof in time to have the correction made before the October number was finally made up. On page 501 I urge as against Mr. Russell's statement that the multiple relation of judging, in virtue of its sense, arranges the objects of the judgment in a certain order, that the objects of the judgment are already arranged in an order independent of the relation of judging, and that it is just the point of a true judgment that it announces such an objective order independent of itself. But then I went on to say that this objection that the mind in judging can only add itself to an independent objective complex, although true, is really a denial of Mr. Russell's main point that judging is a multiple relation. This, however, I saw almost as soon as I had sent my article to the Editor, is not the case. To adopt this common-sense, objective view of judgment is in no wise tacitly to deny that judging is a multiple relation. The matter can be illustrated by means of the relation of 'between'. When a third thing C adds itself to the two things A and B in a certain way the relation of 'between' arises. Nevertheless, 'between' remains a multiple relation subsisting between the three things A, B and C, although we have at least two new dual relations, namely that between C and A and that between C and B. Similarly when I judge that A is to the right of B, the two objects A and B are already arranged in an ordered complex to which the judging mind can only add itself. But this does not necessarily mean that the relation of judging which we are seeking to characterise is a dual relation between the mind, on the one hand, and the ordered objective complex A-r-B, on the other, although again we get new dual relations, namely between the mind and each of its objects, relations which, Mr. Russell insists, are involved in judgment but are not the essence of judgment. What the objection does tacitly deny is that the relation of judging is, so to speak, purely multiple, i.e. that the objects are never found except as related by the multiple relation of judging. But this can be rightly denied, for what all judgment seeks to do is to characterise such relations subsisting independent of the judging mind in its objects.

The objection, however, although sound so far as it goes, is not one on which we should rely before we have offered some solution of the difficulty of impossible objects and of error. It succumbs in turn to the counter-objection that to talk of the mind's adding itself to an objective complex is not to do justice to the essential nature of judgment. Judgment is no more such a complex + mind than it is two peas + a third pea. When, however, we have found some sort of solution of the problem of error, as e.g. by the doctrine of Objectives which I afterwards tried to formulate, it should encourage us to have this pre-scientific view as to the objective nature of judgment on our side.

E. H. STRANGE.

OBITUARY NOTICE.

ON the 2nd December, 1914, a great loss to philosophy and a personal loss to an extremely wide circle of friends occurred in the death of Prof. A. Campbell Fraser, at the advanced age of ninety-six. An account of his career is being arranged for by this review.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—MR. BERTRAND RUSSELL ON OUR
KNOWLEDGE OF THE EXTERNAL WORLD.

BY H. A. PRICHARD.

PHILOSOPHY, it is to be gathered from Mr. Russell's recent *Lowell Lectures*, is now for the first time in history coming into its own, thanks to the recent development of mathematical logic.¹ One of the firstfruits of this new logic Mr. Russell now gives to the world in the shape of an account of our knowledge of the physical world, based on the new logic as the instrument of discovery. It is the object of this paper to examine certain of the more important features of this account, as presented in the *lectures* and in a recent article in *Scientia*.² It must, however, be premised that any discussion of Mr. Russell's account, to be adequate, would have to take the form of a commentary on it sentence by sentence. No shorter procedure could reveal the number and nature of the difficulties which it involves. This paper is intended as the merest *pis aller* and, for brevity's sake, textual comments will be, as far as possible, relegated to notes.

Mr. Russell's view of the problem to be solved is the old one common to the empiricists from Locke to Mill. It arises from the fact that, broadly speaking, in reflecting on his own and other people's pre-critical beliefs, Mr. Russell unquestioningly accepts the empiricist's starting-point. Taking for granted that what is known by perception or observation

¹ Pp. 46, 59.² July, 1914. The lectures and the article will be referred to as L. and S. respectively.

is limited to what he calls the 'immediate data of sense,' viz. 'certain patches of colour, tastes, sounds, smells, etc., with certain spatio-temporal relations';¹ he is naturally struck by the difference between this primitive knowledge and the beliefs of common sense and of science. Common sense believes in the existence of things, *i.e.* 'fairly permanent and fairly rigid bodies—tables and chairs, stones, mountains, the earth and moon and sun'.² The physicist believes in the existence of a world the contents of which are very different from sense data; 'molecules have no colour, atoms make no noise, electrons have no taste, and corpuscles do not even smell'.³ The contrast with respect to science is also brought out thus: 'We thus have still in physics, as we had in Newton's time, a set of indestructible entities which may be called particles, moving relatively to each other in a single space and a single time. The world of immediate data is quite different from this. Nothing is permanent; even the things that we think are fairly permanent, such as mountains, only become data when we see them, and are not immediately given as existing at other moments. So far from one all-embracing space being given, there are several spaces for each person, according to the different senses which give relations that may be called spatial.'⁴ The question therefore arises, 'What sort of justification can we give for these beliefs of common sense and science?'

Mr. Russell's treatment of this problem is largely determined by his natural, and, I would venture to add, reasonable distrust of the common attempt to show that we may *infer* the existence of the 'things,' *i.e.* bodies, of common sense and the atoms of science from the data of sense, by appeal to some *a priori* principle, such as that 'our sense-data have *causes* other than themselves and that something can be known about these causes by inference from their effects'.⁵ Mr. Russell's rejection of this method, however, is not unqualified. 'It may be necessary to adopt this way to some extent, but so far as it is adopted, physics ceases to be empirical or based upon observation and experiment alone. Therefore this way is to be avoided as much as possible.'⁶

¹ S., 1. Mr. Russell gives no reason except convenience for the inclusion of 'certain spatio-temporal relations' among sense data.

² L., 102.

³ S., 1.

⁴ L., 104.

⁵ S., 2.

⁶ S., 2. I do not understand the qualification 'as much as possible'. It must either be maintained that we know some given principle *a priori* or that we do not. In the former case, why should we not be allowed to

As the only alternative to such an inferential apprehension of the existence of bodies would seem to be a direct apprehension of their existence, and Mr. Russell's mere statement of the problem has excluded the view that a direct apprehension is possible, it might seem to follow that no justification of common sense and science is possible. But Mr. Russell thinks otherwise. A third method of vindicating these beliefs is possible, the discovery of which is the achievement of the new logic.

"We may succeed in actually defining the objects of physics as functions of sense-data. Just in so far as physics leads to expectations this *must* be possible, since we can only expect what can be experienced. And in so far as the physical state of affairs is inferred from sense-data, it must be capable of expression as a function of sense-data. The problem of accomplishing this expression leads to much interesting logico-mathematical work."¹

The account of this new method is developed later. It is described as a process of 'construction' or 'logical construction'. Instead of inferring the existence of the things of common sense, and the atoms and the one all-embracing space and time of physics we are to 'construct' them, the supreme maxim in scientific philosophising being that 'wherever possible, logical constructions are to be substituted for inferred entities'.² As Mr. Russell's answer to his own problem is throughout on terms of 'construction,' and as Mr. Russell seems to think that the notion of construction has introduced the same kind of advance into philosophy as Galileo introduced into physics,³ it is important to ascertain exactly what Mr. Russell means by 'construction'. Unfortunately this is difficult to do. Not only does Mr. Russell not explain what he means by 'construction'—though he often refers to construction as 'logical construction,' as 'hypothetical construction,' and as 'intellectual construction,' presumably to distinguish it from literal construction, such as the making of a chair—but there is also great variation in the nature of the things said to be constructed. Sometimes what is said to be constructed is 'an hypothesis,' 'an explanation,' 'a largely hypothetical picture of the world,'⁴ but sometimes—and even in the same

use the knowledge? In the latter, what could we gain by allowing ourselves to do what could only amount to pretending that we had the knowledge?

¹ S., 2. This work is also (L., 133) referred to as 'logical manipulation', a phrase which recalls Jowett's description of logic as a dodge.

² S., 9.

³ L., 59.

⁴ L., 87, 93.

context as the preceding—it is some reality, *e.g.* ‘a world’, ‘perspective space’, ‘physical space’, ‘an instant’, ‘a point’, ‘the state of a thing’, ‘matter’. The latter, however, is plainly the normal usage. Further, this process of constructing a reality is implied to be closely related to, if not identical with, the process of definition. Thus ‘a complete application of the method which substitutes constructions for inferences would exhibit matter wholly *in terms of sense-data*,’¹ and from another passage² it appears that to ‘define a thing as a class’ is to construct it in terms of that class. Perhaps two passages, taken together, best reveal Mr. Russell’s meaning.

“The method by which the construction proceeds is closely analogous in these and all similar cases. Given a set of propositions normally dealing with the supposed inferred entities, we observe the properties which are required of the supposed entities in order to make these propositions true. By dint of a little logical ingenuity, we then construct some logical function of less hypothetical entities which has the requisite properties. This constructed function we substitute for the supposed inferred entities, and thereby obtain a new and less doubtful interpretation of the body of propositions in question.”³

“The space of geometry and physics consists of an infinite number of points, but no one has ever seen or touched a point. If there are points in a sensible space, they must be an inference. It is not easy to see any way in which, as independent entities, they could be validly inferred from the data; thus here again, we shall have, if possible, to find some logical construction, some complex assemblage of immediately given objects, which will have the geometrical properties required of points. It is customary to think of points as simple and infinitely small, but geometry in no way demands that we should think of them in this way. All that is necessary for geometry is that they should have mutual relations possessing certain enumerated abstract properties, and it may be that an assemblage of data of sensation will serve this purpose. Exactly how this is to be done, I do not yet know, but it seems fairly certain that it can be done.”⁴

It would appear from these passages that the meaning

¹ S., 10. The italics are mine.

² S., 9.

³ S., 10.

⁴ L., 113-114. We naturally ask ‘How could anything but a point possibly have the properties of a point?’ and we are not surprised to find Mr. Russell saying a little later (p. 124): ‘when a point or an instant is defined as a class of sensible qualities, the first impression likely to be produced is one of wild and wilful paradox’.

and *rationale* of the process of construction is as follows. Certain beliefs of common sense and science presuppose the existence of certain realities, such as geometrical points, which are neither given in sense nor capable of being inferred from realities given in sense. When such a reality, say an X, is presupposed, we must try to find a group of sense-given realities, A, B, C, D, which, though it is, as we know different from an X, has the properties which an X must have, if the beliefs which presuppose the existence of Xs are true. In other words, we have to find a group of sense-given realities, A, B, C, D, such that the group, though different from an X, has at least up to a certain point the properties of an X. Hence (1) 'constructing an X,' means finding a group of sense-given realities severally and collectively different from an X, but possessing, up to a certain point the properties of an X; and (2) when an X is called 'a construction,' it is meant that certain other realities, as a whole and in their mutual relations, though different from an X, have the properties which common sense or science presupposes an X to have.

This interpretation enables us to understand two pieces of Mr. Russell's subsequent terminology which would be otherwise incomprehensible. (1) Nothing in the sequel is stranger to the simple-minded reader than what strikes him as Mr. Russell's habit of defining things as being what they palpably are not. Thus Mr. Russell defines a 'thing', *i.e.* a body, as the class of its appearances. Now 'a thing' being according to Mr. Russell a construction, what this means is not that a thing or a body really is the class of its appearances, but that this class has the properties which common sense presupposes a body to have, so that while we can criticise common-sense beliefs as presupposing the existence of certain realities, *viz.* bodies, which are essentially unverifiable, we can still find a core of truth in these beliefs, by treating them as if they were beliefs not about bodies but about the classes of their appearances, the reality of which is indubitable. (2) Mr. Russell speaks of using the realities he has constructed to 'interpret' the facts of physics and physiology.¹ This will really mean that if in the statements of physicists we take the terms 'atoms', 'physical space', etc., to stand not for what the physicists mean them to stand but for Mr. Russell's 'constructions', these statements will become defensible, being no longer statements about realities of whose existence we must ever remain doubtful.

¹ *E.g.* I., 93.

We should naturally gather from the passages referred to that since the materials out of which the world is to be constructed are data of sense, Mr. Russell would be bound to end with a Berkeleian view of the physical world, 'a thing' standing simply for what Berkeley called 'a collection of ideas, observed to go together', and for what Mr. Russell would call a certain collection or assemblage of sense data of some particular mind.¹ And a passage in the Lowell Lectures² seems to make this conclusion inevitable. He is there discussing how we are justified in describing what common sense would describe by saying that a table viewed from one place presents a different appearance from that which it presents from another, and that by putting on blue spectacles we alter the appearance of a table. And he urges that the experienced facts can be stated without the common-sense assumption of 'a table of which we see the appearances' and of 'blue spectacles'. The passage—which is throughout reminiscent of Berkeley—is too long to quote. But two sentences will show its drift. 'By experience of the correlation of touch and sight sensations, we become able to associate a certain place in touch space with a corresponding place in sight space. . . . All that is really known is that the visual appearance in question, together with touch, will lead to certain sensations, which can necessarily be determined in terms of the visual appearance, since otherwise they could not be inferred from it'.³ And Mr. Russell concludes: 'I think it may be laid down generally that, in so far as physics or common sense is verifiable, it must be capable of interpretation in terms of actual sense-data',⁴ meaning, I suppose, that the true beliefs corresponding to the beliefs of common sense and science must be beliefs about actual sense data.

At one point Mr. Russell goes even further and represents as the ideal of scientific knowledge an account of the objects of physical science based on a solipsistic view. 'A complete application of the method which substitutes constructions for inferences would exhibit matter wholly in terms of sense-data, and even, we may add, of the sense-data of a single person, since the sense-data of others cannot be known without some element of inference. This, however, must remain for the present an ideal, to be approached as nearly as possible, but to be reached, if at all, only after a

¹ In L., 108, Mr. Russell speaks of 'certain fairly stable collections of appearances, such as landscapes, the furniture of rooms'.

² L., 77.

³ L., 80.

⁴ L., 82.

long preliminary labour of which as yet we can only see the very beginning.'¹

This, however, is not the direction which Mr. Russell's thought actually takes. Though Mr. Russell does not say so, he seems to feel that the sense-data of a single individual, even if supplemented by those of others, are inadequate to form what he describes as the 'ultimate constituents' out of which the world is to be constructed. And he takes the apparently heroic remedy of maintaining in effect that the sense-data of any individual, *e.g.* 'that patch of colour which is momentarily seen when we are said to look at the table, that particular hardness which is felt when we are said to press it, or that particular sound which is heard when we rap it', exist independently of being given in sense to that individual, *i.e.*, of being seen, felt, or heard, etc., by him. The remedy at least *seems* heroic, for Mr. Russell does not hold that these qualities, though independent of the individual, are dependent on something else, *viz.* bodies of which they are the qualities, as common sense might be supposed to think. The very notion of a substratum belongs, according to him, to the prehistoric metaphysics to which common sense is due.² What Mr. Russell holds is that smells, colours, sounds, etc., have an independent existence of their own, in the way in which common sense thinks of bodies as having an independent existence.³ In consequence he prefers to refer to the various realities which

¹ S., 10. This ideal, if it is to be anything, must, it would seem, be not merely *an* ideal but *the* ideal. If so, what could be the use of trying to do anything but to attain it, and how could the falling back on any other method as a *pis aller* be of any use at all?

² S., 8 (*cf.* L., 102). Mr. Russell's habit of representing common-sense beliefs as the outcome of metaphysical theorising makes it hard to see how Mr. Russell could distinguish common sense and philosophy.

³ A passage (S., 4-6) in which *prima facie* Mr. Russell is stating this view only gives us a stone in response to our appeal for bread. He is explaining that he regards sense-data as not mental, and further that whether this is so or not, he is concerned to maintain that they are physical. But when we look for the meaning which Mr. Russell attaches to 'mental' and 'physical,' we find (*a*) that 'a particular is called mental when it is aware of something'—which implies that only a mind is mental, and then only when it is aware of something. Yet no one would wish to contend that a sound or a colour was mental in the sense that it was a mind when it is aware of something. And we find (*b*) that 'physical' in preliminary discussions only means 'what is dealt with by physics' and that 'physics is a subject which tells us something about some of the constituents of the actual world'. But, since the question is simply about the nature of the constituents, how does the statement that sense-data are physical in *this* sense of 'physical' take us any farther?

form the sense-data of individuals, *i.e.* smells, colours, etc., as *sensibilia* rather than as sense-data.¹

¹ Considering the importance which Mr. Russell attaches to the proper formulation of any problem, the following passage (S., 4) is remarkable :—

"I shall give the name *sensibilia* to those objects which have the same metaphysical and physical status as sense-data, without necessarily being data to any mind. Thus the relation of a *sensibile* to a sense-datum is like that of a man to a husband: a man becomes a husband by entering into the relation of marriage, and similarly a *sensibile* becomes a sense-datum by entering into the relation of acquaintance. It is important to have both terms; for we wish to discuss whether an object which is at one time a sense-datum can still exist at a time when it is not a sense-datum. We cannot ask 'Can sense-data exist without being given?', for that is like asking 'Can husbands exist without being married?'. We must ask 'Can *sensibilia* exist without being given?' and also, 'Can a particular *sensibile* be at one time a sense-datum, and at another not?' Unless we have the word *sensibile* as well as the word 'sense-datum,' such questions are apt to entangle us in trivial logical puzzles."

To follow this passage it is necessary to realise that Mr. Russell really uses his own term 'sense-data' in two senses. If we gauge its meaning from general statements which throw light on its meaning, we find that, as its etymology suggests, it is a relative term which stands for realities given in sense to a mind—whatever 'given in sense' turns out to mean—and which conveys nothing about their intrinsic nature. If, however, we ascertain its meaning from Mr. Russell's instances, we find that it is an absolute term which stands for the genus of which certain realities having an intrinsic nature of their own, *viz.* colours, sounds, smells, tastes, and feelings of touch are the species (I exclude 'certain spatio-temporal relations' as incapable of being brought into line with the rest), and which conveys nothing about any relation in which these realities stand to a mind. Probably the nearest term in ordinary language for this genus is 'sensations'. (This double usage is, of course, no accident. It is based on Mr. Russell's view that the realities which are given in sense, *i.e.* which are sense-data in the first sense, consist of sense-data in the second sense. But to be justified, the two senses must be convertible, which would require not only that what is a sense-datum in the first sense must be a sense-datum in the second, but also that what is a sense-datum in the second sense must be a sense-datum in the first—which is just the view that Mr. Russell wishes to avoid.)

Given this distinction it is clear that the proper formulation of Mr. Russell's problem is "Are sense-data in the second sense necessarily also sense-data in the first?" But consider Mr. Russell's view. Of course Mr. Russell rightly says that the question, "Can sense-data exist without being given?" is trivial, because he here means by 'sense-data' realities given in sense, *i.e.* sense-data in the first sense. From the very form of the question the answer is necessarily 'No'. But is Mr. Russell's emendation any improvement? If '*sensibilia*' is taken in its etymological and natural sense of 'realities capable of being given in sense,' the question, "Can '*sensibilia*' exist without being given?" is equally trivial, since the very form of the question requires the answer to be 'Yes'. And if we take '*sensibilia*' in the sense assigned to it by Mr. Russell of 'objects having the same metaphysical and physical status as sense-data, without necessarily being data to any mind'—which can only mean 'realities which are sense-data in the second sense, but which need not be sense-data in the first sense',

The reasons given by Mr. Russell appears to be two : (1) 'Logically a sense-datum is a particular of which the subject is aware. . . . The existence of the sense-datum is therefore not logically dependent on that of the subject. . . . There is therefore no *a priori* reason why a particular which is a sense-datum should not persist after it has ceased to be a datum, nor why other similar particulars should not exist without ever being data.'¹ Since this contention really identifies 'being given in sense' with 'being apprehended,' we should expect the conclusion, if any, to be that what is given in sense not only *may* but *must* be independent of being so given. But in any case the contention must be untrue, since in certain acts of memory, *e.g.* in remembering a past thought, there is certainly awareness of a particular, and if Mr. Russell's contention were true, the particular in being remembered would be given in sense. (2) "I regard sense-data as not mental, and as being, in fact, part of the actual subject-matter of physics. There are arguments, shortly to be examined, for their subjectivity, but these arguments seem to me to prove *physiological* subjectivity, *i.e.* causal dependence on the sense-organs, nerves, and brain. The appearance which a thing presents to us is causally dependent upon these, in exactly the same way as it is dependent upon intervening fog or smoke-coloured glass. . . . We have not the means of ascertaining how things appear from places not surrounded by brain and nerves and sense-organs, because we cannot leave the body; but continuity makes it not unreasonable to suppose that they present some appearance at such places."² Any such appearance would be included among *sensibilia*. . . . What the mind adds to *sensibilia*, in fact is *merely* awareness." Here Mr. Russell's language suggests that he is not even convinced by his own argument. Its weakness lies on the surface. Not only does the appeal to continuity suggest the opposite conclusion, since the argument presupposes the existence of the brain, nerves, and sense organs, but Mr. Russell is not justified, at any rate at this stage of his argument, in presupposing the existence of these bodies of common sense at all.³ The really remarkable thing, how-

the question is not only trivial but also begs the question at issue by tacitly assuming that sense-data in the second sense need not be sense-data in the first. The truth is that not merely does Mr. Russell not deliver us from his 'trivial logical puzzle' but it is simply Mr. Russell's own equivocal use of the term 'sense-data' that is responsible for it.

¹ S., 6.

² S., 4, 5.

³ Mr. Russell actually says : 'Berkeley's attack (*sc.* on an independent physical world) is reinforced by the physiology of the sense organs and

ever, is that Mr. Russell confines himself to physiological considerations and never even raises what would seem the natural question to put, *viz.* 'Is it not simply nonsense to speak of an appearance which is not an appearance to some one?' and that consequently he never even does so much as to refer to the arguments used by Berkeley to establish the dependence of what is perceived upon a percipient.

So far I have only summarised Mr. Russell's view (1) of the proper *method* of vindicating common sense and science, *viz.* that of 'constructing' their worlds, and (2) of the *materials* out of which these worlds are to be constructed. We have now to turn to Mr. Russell's account of the actual process of construction. This is stated to be a long and difficult journey. That Mr. Russell may not be misrepresented, his account is best exhibited by quotations of which the first is inevitably lengthy.

We have now to explain the ambiguity in the word "place," and how it comes that two places of different sorts are associated with every sense-datum, namely the place *at* which it is and the place *from* which it is perceived. The theory to be advocated is closely analogous to Leibniz's monadology, from which it differs chiefly in being less smooth and tidy.

The first fact to notice is that, so far as can be discovered, no sensible is ever a datum to two people at once. The things seen by two different people are often closely similar, so similar that the same *words* can be used to denote them, without which communication with others concerning sensible objects would be impossible. But, in spite of this similarity, it would seem that some difference always arises from difference in the point of view. Thus each person, so far as his sense-data are concerned, lives in a private world. This private world contains its own space, or rather spaces, for it would seem that only experience teaches us to correlate the space of sight with the space of touch and with the various other spaces of other senses. This multiplicity of private spaces, however, though interesting to the psychologist, is of no great importance in regard to our present problem, since a merely solipstic experience enables us to correlate them into the one private space which embraces all our own sense-data. The place *at* which a sense-datum is, is a place in private space. . . .

In addition to the private spaces belonging to the private worlds of different percipients, there is, however, another space, in which one whole private world counts as a point, or at least as a spatial unit. This might be described as the space of points of view, since each private world may be regarded as the appearance which the universe presents from a certain point of view. I prefer however to speak of it as the space of *perspectives*, in order to obviate the suggestion that a private world is only real when some one views it. And for the same reason,

nerves and brain, is very powerful'. (L., 64. The italics are mine.) The remark seems only comparable with that of Dr. Johnson.

when I wish to speak of a private world without assuming a percipient, I shall call it a "perspective".

We have now to explain how the different perspectives are ordered in one space. This is effected by means of the correlated "sensibilia" which are regarded as the appearances, in different perspectives, of one and the same thing. By moving, and by testimony, we discover that two different perspectives, though they cannot both contain the same "sensibilia," may nevertheless contain very similar ones;¹ and the spatial order of a certain group of "sensibilia" in a private space of one perspective is found to be identical with, or very similar to, the spatial order of the correlated "sensibilia" in the private space of another perspective. In this way one "sensible" in one perspective is correlated with one "sensible" in another. Such correlated "sensibilia" will be called "appearances of one thing". . . .

The arrangement of perspectives in a space is effected by means of the differences between the appearances of a given thing in the various perspectives. Suppose, say, that a certain penny appears in a number of different perspectives; in some it looks larger and in some smaller, in some it looks circular, in others it presents the appearance of an ellipse of varying eccentricity. We may collect together all those perspectives in which the appearance of the penny is circular. These we will place on one straight line, ordering them in a series by the variations in the apparent size of the penny. Those perspectives in which the penny appears as a straight line of a certain thickness will similarly be placed upon a straight line, and ordered as before by the apparent size of the penny. By such means, all those perspectives in which the penny presents a visual appearance can be arranged in a three-dimensional spatial order. . . .

The space whose construction has just been explained, and whose elements are whole perspectives, will be called "perspective-space".

The world which we have so far constructed is a world of six dimensions, since it is a three-dimensional series of perspectives, each of which is itself three-dimensional. We have now to explain the correlation between the perspective space and the various private spaces contained within the various perspectives severally. It is by means of this correlation that the one three-dimensional space of physics is constructed; and it is because of the unconscious performance of this correlation that the distinction between perspective space and the percipient's private space has been blurred, with disastrous results for the philosophy of physics. Let us revert to our penny: the perspectives in which the penny appears larger are regarded as being nearer to the penny than those in which it appears smaller, but as far as experience goes the apparent size of the penny will not grow beyond a certain limit, namely that where (as we say) the penny is so near the eye that if it were any nearer it could not be seen. By touch we may prolong the series until the penny touches the eye, but no further. If we have been travelling along a line of perspectives in the previously defined sense, we may, however, by imagining the penny removed, prolong the line of perspectives by means, say, of another penny; and the same may be done with any other line of perspectives defined by means of the penny. All these lines meet in a certain place, that is, in a certain perspective. This perspective will be defined as "the place where the penny is".

¹ As Mr. Joseph has observed to me, since no two appearances in different perspectives are ever presented to the same individual, we could not possibly discover the similarity by testimony or otherwise.

It is now evident in what sense two places in constructed physical space are associated with a given "sensible". There is first the place which is the perspective of which the "sensible" is a member.¹ This is the place *from* which the "sensible" appears.² Secondly there is the place where the thing is of which the "sensible" is a member, in other words an appearance; this is the place *at* which the "sensible" appears. The "sensible" which is a member of one perspective is correlated with another perspective, namely that which is the place where the thing is of which the "sensible" is an appearance. To the psychologist the "place from which" is the more interesting, and the "sensible" accordingly appears to him subjective and where the percipient is. To the physicist the "place at which" is the more interesting, and the "sensible" accordingly appears to him physical and external. The causes, limits and partial justification of each of these two apparently incompatible views are evident from the above duplicity of places associated with a given "sensible".

We have seen that we can assign to a physical thing a place in the perspective space. In this way different parts of our body acquire positions in perspective space, and therefore there is a meaning (whether true or false need not much concern us) in saying that the perspective to which our sense-data belong is inside our head. Since our mind is correlated with the perspective to which our sense-data belong, we may regard this perspective as being the position of our mind in perspective space. If, therefore, this perspective is, in the above defined sense, inside our head, there is a good meaning for the statement that the mind is in the head. We can now say of the various appearances of a given thing that some of them are nearer to the thing than others;³ those are nearer which belong to perspectives that are nearer to "the place where the thing is".⁴

After enunciating even greater paradoxes Mr. Russell goes on to define matter, *i.e.*, I suppose, the atoms of the physicist. "The *matter* of a given thing is the limit of its appearances as their distance from the thing diminishes."⁵ And Mr. Russell shortly afterwards goes on to say: 'Consider for example the infinite divisibility of matter. In looking at a given thing and approaching it, one sense-datum will become several, and each of these will again divide.'⁶

¹ As Mr. Russell defines a perspective as a private world without the assumption of a percipient, he is here definitely *identifying* a private world without a percipient with a point.

² Surely this place should only be described as 'the place from which the percipient perceives the sensible which appears'. It cannot be, as Mr. Russell's language implies, that the sensible appears from this place; at best it can only be that the percipient of it perceives it from that place.

³ Why should any one want to find a meaning for saying that some appearances of a thing are nearer to it than others, or even for saying that the mind—which after all is not a body—is in the head?

⁴ S., 11-15.

⁵ S., 16. I take 'the limit of its appearances' to mean that appearance which forms a limit.

⁶ How can a sense-datum, *e.g.* a noise or a colour, become several or divide?

Thus one appearance may represent ¹ many things, and to this process there seems no end. Hence in the limit, when we approach indefinitely near to the thing, there will be an indefinite number of units of matter corresponding to what, at a finite distance, is only one appearance. This is how infinite divisibility arises. ²

I append one more quotation, which throws light on Mr. Russell's 'interpretation' of 'a thing'.

We have seen how correlated appearances in different perspectives are combined to form one "thing" at one moment in the all-embracing time of physics. We have now to consider how appearances at different times are combined as belonging to one "thing," and how we arrive at the persistent "matter" of physics. The assumption of permanent substance, which technically underlies the procedure of physics, cannot of course be regarded as metaphysically legitimate: just as the one thing simultaneously seen by many people is a construction, so the one thing seen at different times by the same or different people must be a construction, being in fact nothing but a certain grouping of certain "sensibilia".

We have seen that the momentary state of a "thing" is an assemblage of "sensibilia," in different perspectives, not all simultaneous in the one constructed time, but spreading out from "the place where the thing is" with velocities depending upon the nature of the "sensibilia".³

In considering this position I shall endeavour to ignore the endless minor difficulties and to concentrate on essentials. The position plainly falls into three parts, which may be dealt with in order, the doctrine of private worlds, each containing a private space, the doctrine of 'perspective' space, and the doctrine of 'things'.

The first doctrine is expressed by saying that the individual, so far as his sense-data are concerned, lives in a private world, which contains a private space. We have to consider in turn: (1) the justification which Mr. Russell offers for this statement, (2) its precise meaning, and (3) its truth.

The justification offered for it lies in the thesis that no sensible is ever a datum to two people at once, and this again is justified thus: "*So far as can be discovered,*"⁴ no sensible is

¹ This view of the relation between an appearance and the thing of which it is an appearance is not elucidated either here or elsewhere.

² S., 17. What is meant by 'arises'?

³ S., 19-20. Mr. Russell appears to be thinking of such a fact as that if two persons stand at different distances from a bell which is being rung, they hear different sounds at different moments. If so, (1) the implied attribution of velocity to noises involves an erroneous identification of a sound with the vibrations of air which form part of its physical conditions, and (2) the implication that the noises, taken together, are, or are at least a substitute for, the state of the bell is plainly untrue, even if we ignore the fact that the noises take place at different times.

⁴ The italics are mine.

ever a datum to two people at once. The things seen by two different people are often closely *similar*.¹ . . . But in spite of this similarity it would seem that some difference always arises from difference in the point of view." Now if this passage be examined, it will be seen that the consideration which is really moving Mr. Russell is different from that which he ostensibly puts forward, and that while the latter is both untenable in itself and quite inconclusive, the former presupposes the truth of the very view which it is Mr. Russell's object to destroy.

Ostensibly, as is shown by the words, 'so far as can be discovered,' Mr. Russell's reason for holding that no sensible is ever a datum to two people at once is empirical or inductive. It is that, so far as experience has gone, the appearances presented by things to different people have never been more than closely similar. Now not only does this assertion convey the false suggestion that if experience had shown two appearances to be identical in character, they would be numerically identical, but it implies equally falsely that *experience* can decide that appearances presented to *different* individuals are only closely similar. And it is wholly inconclusive, since to maintain only that, so far as experience has gone, the appearances are different is to imply that in certain cases they might be the same. And what could Mr. Russell say of the case which common sense would describe as that where two men with precisely similar organs saw precisely similar bodies from precisely similar points of view? The case is certainly possible, and how could Mr. Russell deny that in that case the appearances would be identical in character? Yet what Mr. Russell has to show is that in *all* cases the appearances *must* be different. For what Mr. Russell wants to show is that A's data of sense form a world private to him, distinct from the private world formed by B's data of sense, and from the world of science. And, though 'distinct worlds' can only be a *façon de parler*, since after all there is only one world, it is clear that when Mr. Russell refers to A's data of sense and B's data of sense as distinct *worlds*, he is implying that they each form a different system such that a datum belonging to the one cannot belong to the other. Otherwise the distinction between them as distinct worlds, *i.e.* distinct systems, would break down, and they would be implied to be parts of *one* world or system. Hence Mr. Russell has to show that there is something in a sense-datum to A which makes it *impossible* for it to be a sense-datum to B.

The consideration which is really moving Mr. Russell is

revealed by his reference to *difference in the point of view*, and is one which is not empiricist at all. It is that which the plain man would express, and, to my mind, truly express, by saying that since two men in looking, *e.g.* at the same chair, must look at it from different positions, there *must* be some difference between the appearances which it presents to them. And this contention presupposes the truth not only of the position which at the moment Mr. Russell is trying to destroy, *viz.* that two people can see the same thing, but also of the position which it is one of Mr. Russell's chief objects to supplant, *viz.* that the realities which we see are the things of common sense, *i.e.* bodies, and spatial relations between them, and not appearances and spatial relations between them. For how can it be argued that the appearance presented by the reality which A sees must differ from that presented by the reality which B sees *owing to the difference of point of view*, unless it is assumed (1) that the realities which they see are bodies, and (2) that these realities are one and the same body. It is meaningless to speak of such differences unless the realities seen are bodies and not, *e.g.*, tastes or sounds or smells. And the bodies seen must be one and the same body; for there is no difficulty whatever in allowing that two different bodies might present appearances identical in character to two different people, provided only that they saw them from corresponding positions. And when Mr. Russell says that the things seen by two different people are often closely similar and then goes on to add that some difference in the things seen always arises from difference in the point of view, there is absolutely no argument unless what he means is that the appearances presented by the *same thing* seen by two people are, though often closely similar, always different. It looks as though Mr. Russell, in order to establish his conclusion that the appearances are different, starts from the common-sense view that A and B in certain cases see the same thing, and then, in order to make his conclusion conform to his general view that what A and B see is never one body but always two different appearances, goes back upon his starting-point by expressing his conclusion in a form which implies that what A and B see are the different appearances.¹

We have now to ask what exactly is *meant* by the statement: 'Each person, so far as his sense-data are concerned,

¹ 'No sensible is ever a datum to two people at once' must in the case of sight mean that two people never at once see the same *appearance*. The qualification 'at once', it may be noted, is inconsistent with Mr. Russell's doctrine that the sensibilia of each man forms a private world.

lives in a private world. This private world contains its own space.' 'Lives in,' though vague, is easily interpreted. Mr. Russell obviously means: 'The realities which are given in sense to each individual form a private world'. But what is meant by referring to this world as 'private'? The context suggests that Mr. Russell's 'private,' which must of course be expanded to 'private to some one,' is most naturally interpreted, if 'private to me' is taken to mean 'capable of being perceived by me alone,' with the implication that whatever is so called exists independently of my perception. For Mr. Russell seems to mean by 'my private world' that system of realities which I alone can perceive, and he holds that my sense-data exist independently of me.

But this sense of 'private' would be fatal to Mr. Russell's distinction between different worlds, *viz.* the 'private' worlds of individuals and the 'non-private' world of science. For imagine two groups of realities, each only capable of being seen by different individuals but independent of them. Imagine, for instance,¹ another planetary system so remote from ours that I who live on this earth could not possibly perceive any body belonging to it. Imagine also an inhabitant of that system similarly incapable of perceiving any body belonging to our planetary system. What shadow of a reason could there be for referring to the two systems as distinct worlds? Each being independent of its percipient, there is no difficulty whatever in allowing that the members of both together form one system, *viz.* one system of bodies in space. And I should have to think of them thus. For suppose the inhabitant of the other system had some means of communicating with me about his system. I should in fact, and should have to, think of his system as forming part of one world in space with mine. The mere fact that I could not discover and should know that I could not discover the distance between the two systems and their relative positions would not prevent my thinking that they were parts of one system and that there was a certain distance between them and that they had a relative position. Perhaps Mr. Russell would rejoin that what he would call *a* space consists of the realities which occupy it in their mutual relations, and that therefore the two systems supposed must be regarded as occupying two spaces, since we could never relate, *i.e.* discover the relations between, the two systems.

¹ Mr. Russell may object to the instance, on the ground that it implies that the objects of sight are bodies, but the argument will apply to any instance which Russell may prefer.

But even on this view of a space—which is plainly untenable, since no space can consist of whatever it is that occupies it—we should still have no right to speak of two spaces and two worlds, since our inability to discover the relation would not imply its non-existence, and we should in fact know that they were spatially related, even though we knew that we could never discover the character of this relation in detail. The truth is—and I venture to press the point—that the mere assumption that what is given in sense exists *independently* of being so given is enough to destroy the possibility of maintaining that the realities so given to two different people belong to worlds distinct from one another and from a world of science supposed to be incapable of being given in sense to any one. Once this independence is granted, there is absolutely *no* reason for maintaining that the groups of realities forming the so-called distinct worlds are anything but parts of one world, *i.e.* one system. Hence even Mr. Russell's formulation of his starting-point, in that it refers to what can never be a sense-datum to two people at once as a *sensibile* is fatal to the very conclusion which he desires.

To save Mr. Russell's view from inconsistency there is one and only one meaning to be given to 'private to me'. It must mean 'dependent on me,'¹ *i.e.* such that if I had not existed, it would not have existed, the dependence consisting in the various species of being 'given in sense,' *viz.* being seen, heard, etc., by me. Given this meaning, though not otherwise, the phrases, 'a private world' and 'a private space' have a perfectly good meaning. For suppose, as Mr. Russell does, that what we see is appearances, and not bodies; suppose, as Mr. Russell does not but as he should, that an appearance, as being necessarily an appearance to some one, is dependent on that some one; and suppose, as Mr. Russell has to do, that the spatial relations which we perceive are not relations between bodies but relations between appearances. Suppose also that there are bodies related in space, independent of our perception. We should then have to think of the spatial relations which I perceived, as belonging to a space different (1) to that to which belonged the spatial relations which some one else perceived, and (2) to that to which belonged the spatial relations between bodies. For the spatially related appearances to me, as dependent on me, the spatially related appearances to

¹ I am aware of, but see no force in, Mr. Russell's objection to the phrase. Cf. L., 74.

some one else, as dependent on him, and the spatially related bodies, as independent of both of us, would form separate systems, *i.e.* systems such that a reality belonging to one of them could not belong to either of the others. For the unity of each of the first two systems would lie in a characteristic incapable of being shared by the other or by the third, *viz.* dependence on a certain given individual.

Since, then, the doctrine of 'private worlds' is plainly vital to Mr. Russell, it must be assumed that 'private to me' means dependent on me, this being the only meaning which affords any justification for the phrase 'a private world' at all. Several things now become clear. (1) The appearances which are not appearances to me, which Mr. Russell introduces into 'my private world' apparently to give it a completeness without which it is difficult to describe it as a world have no right to be there, being really of the nature of putty inserted to fill up the cracks in the view. (2) Mr. Russell's notion of 'a perspective', *i.e.* of a private world without the assumption of a percipient, involves a contradiction. (3) The view which really occasions Mr. Russell's doctrine of private spaces is that usually known as subjective idealism, *i.e.* the view that what I perceive is always something dependent on me for its existence. (4) Mr. Russell's view, stripped of inconsistency, is that what I see consists of appearances and spatial relations between them, that these appearances, and therefore also the spatial relations between them, are dependent on me, and that for this reason, the realities which I see form a spatial world distinct from that seen by others and from the independent spatial world of science.

Now is there any truth in this doctrine of private worlds each containing a private space? Surely none whatever.

In the first place the realities which are capable of being spatially related are not appearances to some one but bodies. No one thinks, or could think, that an appearance to me could be, say, to the left of, or near to, another. The thing is impossible. To realise this, we have only to face the issue directly, when not under the obsession of some theory. Such statements are as obviously untrue as to speak, as Mr. Russell does, of the *appearance* of a penny as circular, or of a certain *appearance* as blue.¹ The impossibility is in no way removed if we substitute for an appearance a patch of colour and say with Mr. Russell: 'This patch of red is to the left of that patch of blue.'² Moreover, Mr. Russell's doctrine is

¹ S., 13; L., 79. The italics are mine.

² S., 2.

general and applies also to smells, tastes, sounds and to whatever he supposes to be the objects of touch. Yet is there any one who, so long as he does not confuse such realities with their physical conditions, really thinks that they are or can be spatially related *inter se*?

In the second place we should ask whether there is any sense whatever in speaking of a plurality of spaces, apart from asking the subsequent question whether, if there is, there would be any sense in speaking of some of them as private. Mr. Russell seems so much under the dominion of his theory that what we perceive is private to us that he appears not even to have *asked* himself the question. Here again, if we face the issue on its merits, without having some theory to vindicate, we are bound to admit that it is simply not sense to speak of a plurality of spaces at all, and that there neither is nor could be any thought corresponding to the phrase, since we cannot think impossibilities. And if we look for the reason, we find it in that given by Kant, in spite of, or perhaps rather in consequence of, his 'psychological innocence'.¹ "We can represent to ourselves only one space, and if we speak of many spaces we mean thereby only parts of one and the same unique space."² There seems no more to be said. Here at least is something which any one who faces the issue must find indubitable. If we try to think of different spaces, we only find ourselves thinking of parts of the one space, and if we try to think of systems of bodies in different spaces, we only find ourselves thinking of the different systems as in different parts of the one space. I would venture to suggest to Mr. Russell that he should extend a statement which he makes with reference to doubt so as to make it apply to thought. "Verbal doubt may occur when what is nominally being doubted is not really in our thoughts, and only words are actually present to our minds."³

In the third place, if there cannot be such a thing as a space, in distinction from the one all-embracing space, there cannot of course be such a thing as a *private* space. But is there any way in which the term 'private' can legitimately be used in connexion with space? Since there is no such thing as a space, the term can be applicable, if at all, only to the particular spaces which form the parts of the one space. And if some particular space were said to be private to me, it is clear from the only meaning which can be attached to 'private to me,' that the particular space meant must be a

¹ S., 7.² Kant, *Cr. of Pure Reason*, B., 39.³ L., 71.

space which I am perceiving and that the statement must mean that this space is dependent on me as the percipient of it.¹ But unfortunately this statement would be inconsistent with what we know to be the nature of a particular space. For it would imply that particular parts of space perceived in succession exist only in succession, whereas a particular space—as is obvious when we reflect on its nature—implies the co-existence of adjacent spaces, and these the co-existence of others, and so on *ad infinitum*. If space exists at all, as we know it does, and as Mr. Russell himself implies when he places spatial relations among sense-data, and so among indubitable realities,² it exists all together.

In view of these considerations it is plain that we cannot account for Mr. Russell's coming to speak of private spaces at all, unless we regard him as really, though contrary to his nominal doctrine, under the obsession of the subjective idealist's view of perception.

But Mr. Russell's impossibilities are not exhausted. For, according to him, each so-called private space is a plurality, consisting of several spaces. 'The first thing to notice is that different senses have different spaces. The space of sight is quite different from the space of touch; it is only in experience in infancy that we learn to correlate them. . . . The one space into which both kinds of sensation fit is an intellectual construction, not a datum. And besides touch, there are other kinds of sensation which give other though less important spaces; these have also to be fitted into the one space by means of experienced correlations. . . .' 'And as in the case of others, so here: the one all-embracing space, though convenient as a way of speaking, need not be supposed really to exist. . . . The one space may turn out to be valid as a logical construction, compounded of the several spaces, but there is no good reason to assume its independent metaphysical reality.'³

In endeavouring to follow this passage, we may, I think, fairly be excused for finding it difficult to keep our heads.

¹ Mr. Russell may deny that we perceive particular spaces. But since he expressly includes certain spatial relations among our sense-data, he ought to allow that we perceive at least that portion of space within which the realities are which are thus related, *e.g.* as near together. To think that we could perceive the relations without perceiving the space within which they are is as impossible as to think that we can think of a geometrical line except as the boundary of a geometrical surface, or of a geometrical surface except as the boundary of a portion of space.

² L., 71-72.

³ L., 113. Cf. S., 12. This statement throws a vivid light upon Mr. Russell's faith in the new method.

What does Mr. Russell *mean* by saying that the space of sight and the space of touch are quite different? Apparently that what he calls sight sensations, A, B, C. . . . and touch sensations, P, Q, R, . . . form separate spatially related systems, *i.e.* spatially related systems such that a sensation belonging to the one cannot be spatially related to a sensation belonging to the other. This interpretation is confirmed by his speaking of correlating the one space with the other, *i.e.*, presumably, finding some correspondence between the sensations which belong to each. But in *this* case there can be no reason for thinking of A, B, C, . . . P, Q, R, . . . as separate systems. If they were sensations given to different individuals, they could be regarded as forming separate systems, because dependent on different individuals, but *ex hypothesi* what dependence there is is dependence on the same individual, and there is no more reason for holding that A, *e.g.*, is spatially related to B than for holding that it is spatially related to P. Again it is maintained that the two kinds of sensation *fit into* one space, *viz.* the space which one passage¹ describes as the one private space and which the context of the passage quoted² inconsistently represents as the one all-embracing space of science. But if they fit into one space, how can they belong to two different spaces, since as so fitting they must together form *one* spatially related system?³ It looks as though Mr. Russell when he speaks of the spaces as different is thinking of his spatially related sensations of the various senses as if they were apprehended in water-tight compartments,⁴ as they would be if each sense belonged to a different person. But if this were the case, plainly they could never be fitted together spatially or otherwise⁵

¹ S., 12.² L., 113.³ It may be noted that while Mr. Russell's phrase 'correlating the space of sight *with* the space of touch' (L., 113) implies that these spaces are different, his phrase 'correlating these spaces *into* one space, implies that they are the same'.⁴ Cf. Theaetetus, 184.⁵ The following statement is significant: "In later life, when we see an object within reach, we know how to touch it, and more or less what it will feel like; if we touch an object with our eyes shut, we know where we should have to look for it, and more or less what it would look like." (L., 113). It suggests that the only correlation which corresponds to Mr. Russell's language is that which obviously exists between *seeing* a body and *touching* it. If I see a thing in a particular way, I know that by doing certain things, I can subsequently have the experience which consists in touching it in a particular way. If this suggestion is correct, Mr. Russell's fundamental mistake is that he is treating a non-spatial relation between two perceptions as if it were a spatial relation between the realities perceived.

Before proceeding, it will be well to raise an incidental but important issue. It may be contended that Mr. Russell's sense-data, though they may not be spatially related, must be temporally related, and that consequently even if his view that there are private spaces is untenable, it is possible to justify his view that there are private times distinct from one another and from the non-private time of common sense and science. For since my sense-data depend on me, as hearing, or seeing them, etc., as the case may be, the temporal relations which I directly apprehend between them will also depend on me. Hence, it may be said, the succession of my sense-data belongs to a private time different from the private time of others and the non-private time of science.

Here, however, the premises do not justify the conclusion. No doubt, even if we do not accept Mr. Russell's view that the objects of perception are necessarily sense-data and so private to me, we must admit that there are certain successions which can fairly be described as private to me, *viz.* the successions of my thoughts and feelings, which depend on me and which I alone can directly apprehend by an act of reflection. But the privateness of these successions does not in the least imply that the time during which they occur is private to me. Whatever Mr. Russell may say, a given time is not the same as the sequence of events which take place in it, and we think, and can only think, of the time during which a particular succession of thoughts and feelings occurs as part of the one time of which every one is aware and which forms the time of science. No doubt if we were directly aware *only* of successions private to ourselves and somehow learned that others were directly aware of successions private to them, we could not discover the particular temporal relations between our successions and theirs; we could not discover, *e.g.*, which came first. Yet we should think, and should have to think, of them all as taking place during parts, though possibly different parts, of the one time. In fact, however, what enables us to discover the temporal relations between our private successions and those of others is that some of the successions of which we are directly aware are *not* private to, *i.e.* dependent on, us, such as the successive movements of a boat—to take Kant's instance—and that we are also directly aware of these successions as contemporaneous with certain private successions. For then, assuming a corresponding apprehension in some one else, we can infer—though, of course, only with limited exactness—either from his testimony or from observation of his bodily movements, that certain processes are taking place in his

private world contemporaneously with what we know to be going on in ours.¹

It may also be noted that it is the refusal of Mr. Russell and of those who think with him to allow or even to entertain the idea that in the cases of sight and touch we have a direct apprehension of bodies which explains their view of the precariousness of our belief in the existence of other minds and their denial that two minds can possibly perceive one and the same thing. Once it is granted that we see bodies, which, as such, must exist independently of our seeing them, there is no difficulty in allowing (1) that when we see a body like our own, there is related to it a mind in a way similar to that in which our mind is related to our body—whatever that may be, and (2) that two minds may perceive the same thing. To both admissions alike the obstacle lies simply in the theory that what we see can only be an appearance, which, as such, must be dependent on ourselves.

We have now to consider Mr. Russell's account of what he at first calls the space of perspectives and afterwards also refers to as physical space.² According to Mr. Russell, besides the spaces private to individuals, there is another space, the space of perspectives. If we ask, 'What are the realities spatially related within this space?' we get as the answer, 'Perspectives,' *i.e.* the private worlds of individuals, without their percipients. Here we seem to reach almost the limit of paradox. These perspectives, *i.e.* systems of appearances which are appearances to no one, each, according to Mr. Russell's own statement, contain their own space. They are therefore infinite. We thus get the amaz-

¹ Mr. Russell may object (1) that since the ether vibrations which form part of the physical conditions of sight take a certain time, we cannot possibly *perceive* a physical change, since, if we did, our perception of the change would occur later than the change by some period however small; and (2) that, in consequence, any apprehension of a private succession as contemporaneous with a non-private succession must be impossible—at best there only being possible an erroneous belief. But (1) I do not see how the fact that, *e.g.*, an eclipse of one of Jupiter's satellites takes place before I see it in a telescope shows that I am not seeing the eclipse; and (2) although before I become aware of the velocity of light, I shall be mistaken as to the exact time at which the eclipse occurred relatively to my perception, the knowledge in question enables me to correct the mistake.

² Mr. Russell, in S., 14, distinguishes them, apparently because he considers a space to consist of the realities related within it. But his statements about perspectives and bodies imply that they are related within the same space (*E.g.*, "We have seen that we can assign to a physical thing a place in the perspective space." (S., 15).

ing result that a number of systems of realities, each spatially infinite, are at finite distances from one another. This result Mr. Russell will be seen frequently to express in so many words, if in reading Mr. Russell we substitute for 'perspective' his definition of it. Thus Mr. Russell speaks of placing on one straight line all the perspectives in which the appearance of a certain penny is circular. Mr. Russell may rejoin that he has only said that in perspective space one whole private world *counts as* a point, or at least as a spatial unit. But (1) what could be meant by saying that a spatially infinite world *counts as* a point? Surely it is only an attempt to evade the difficulty by a word. We may, in certain cases, be justified in treating a thing as if it were different to what we know it to be; in calculating the attraction of one planetary system on another, we may rightly treat or count each as if it were a single body. But it is certain that we are not entitled to treat something spatially infinite as if it had no spatial magnitude at all. (2) Mr. Russell himself speaks of explaining how the different *perspectives* are ordered in one space, and refers to single perspectives as the *elements* of perspective space.¹ (3) Mr. Russell's own summary of his view is decisive. 'The world which we have so far constructed is a world of six dimensions, since it is a three-dimensional series of perspectives, each of which is itself three-dimensional.' No doubt 'a world of six dimensions' is, to adapt Mr. Russell's phrase, mere 'verbal thought,' if the phrase means what it says. But if we are to find *some* thought underlying the statement it can only be that the realities related within the three-dimensional perspective space are themselves three dimensional. And, if so, these realities cannot be points and should not be treated as if they were.

Moreover even if Mr. Russell's perspectives were points or could even be treated as points, there would only be another fatal difficulty. For it is Mr. Russell's view that the space of geometry and physics, and therefore, presumably, perspective space consists of an infinite number of points.² And in spite of all that Mr. Russell may say about continuity and infinite numbers, it is obvious to any one who does not allow his mind to be confused by the pontifical statements of some mathematicians, when they abandon mathematics and take to reflecting about the *ἀρχαί* of mathematics, that space does not consist of points.

These, however, are not the only impossibilities of Mr.

¹ S., 89.

² L., 113

Russell's view. He is also committed to holding that a given appearance must be in three different places, one in private space, and two in perspective space. (1) 'The place at which a sense-datum is, is a place in private space.'¹ (2) As part of a private world, an appearance must be at the place in perspective space 'from which the sensible [*i.e.* the appearance] appears'. (3) Since 'a thing' is defined as the class of its appearances, an appearance must be at that place in perspective space which is described as 'the place where the thing is' of which the appearance is an appearance.

This being Mr. Russell's view of the nature of perspective space, what reasons does Mr. Russell give for its existence? *Prima facie* there would seem to be a difficulty. For if what the individual perceives is a space private to himself, then even granting that he somehow manages to become aware of the private spaces of others, what could lead him even to suspect the existence of any other space? And even if there were a process such as Mr. Russell describes of discovering particular spatial relations within this space, it would have to presuppose the knowledge that there was such a space, just as the search for a coin presupposes the knowledge that there is such a thing as space in which the coin is to be looked for. And when we look for a reason in the long passage quoted we find not only that absolutely none is given but that the process described throughout *presupposes* knowledge of the existence of 'perspective' space. Again in the *Lectures* Mr. Russell says of 'perspective' space—inconsistently with his view that it is a 'construction'—"No one can perceive it, and if it is to be known, it can only be by inference".² But by inference from what? To this problem not even a clue is given.

But if the supposition of perspective space involves impossibilities and is backed by no reason, how has Mr. Russell come to speak of it at all? There must of course be some process which Mr. Russell is describing—and misdescribing. And to find it is easy, provided common sense is not regarded, as Mr. Russell seems to regard it, as a species of lunacy. Grant, as we all think when not philosophising, and as Mr. Russell—to judge from his habitual use of ordinary language when stating the truth—often thinks even when he is philosophising, that what we see is bodies. Grant also as a consequence of the nature of space and of the fact that our seeing is physically conditioned, (1) that

¹ S., 12. 'The' of course implies that it is in no other place.

² L., 86.

bodies must present different appearances to us when seen in different positions relatively to our body, and (2) that we necessarily see bodies as if from a certain point determined with reference to our bodies—though without actually being there, since in that case our mind would be a body. Grant also that, however it has come about, we have become aware of certain bodies (including our own) in certain positions relatively to one another. Then there is no difficulty in allowing that when we remember the appearances which one of these bodies presented to us at certain moments, there may be a process by which we calculate what were the points relatively to that body from which, as it were, we saw it and where our body was at these moments relatively to that body, and again that by a similar process we can calculate what is the point relatively to the given body from which, as it were, we should have to see it, and where our body would have to be, if it was to present to us a given appearance.¹

The possibility of conducting this process presupposes knowledge none of which from Mr. Russell's standpoint ought to be presupposed, *viz.* knowledge of the existence (1) of what Mr. Russell calls the one all-embracing space of science, *i.e.* space, (2) of certain bodies in it, and (3) of certain spatial relations between them. On the other hand it does not presuppose belief in any of the impossibilities which Mr. Russell's account of it would require us to believe in. It does not imply that we think of private worlds or private spaces² or that we think of these as, though infinite, spatially related in another space.

If, as we are driven to hold, the process just described is that of which Mr. Russell is really thinking when he professes to describe the 'construction' of 'perspective' space, we can easily understand Mr. Russell's meaning when he speaks of 'perspective' space as a construction and the real nature of his procedure. For suppose (1), as Mr. Russell does, that 'perspective' space, *i.e.* really space, consists of an infinity of points. Suppose (2), in accordance with this, that 'perspective' space can be regarded as consisting of the points which form the points of view from which, as it were, we see bodies. Suppose (3) that the perceptions correspond-

¹ The fact that we can only do this approximately, does not, of course, affect the argument; for the process throughout presupposes that we know that there are these points and positions, even if we cannot discover precisely which they are.

² The nearest approach to this is the implication that we remember certain of our perceptions.

ing to the various points of view can be regarded as *counting* as these points, and so as standing in the spatial relations in which the points stand. Suppose (4) that we ought to substitute for these perceptions Mr. Russell's 'perspectives', *i.e.* certain groups of appearances without a percipient. Then, on these suppositions, the process just described will be precisely the construction which Mr. Russell wants. It will consist in finding assemblages of sensibilia which, though known not to be 'perspective' space, will 'count' as that space, *i.e.* will have the same properties. The original problem, therefore, will be solved. We shall have given some justification for our belief in the existence of the non-sense-given space of science, without inferring its existence on the strength of some *a priori* principle, and we shall have done so by finding combinations of sense-given realities which will have the same properties as if they were the space of science.

If, as must be the case, this is what Mr. Russell's view really comes to, only two comments are needed. In the first place not one of the four suppositions just stated is anything but obviously untrue. In the second place the process which Mr. Russell is describing, and, I venture to think, misdescribing, throughout presupposes knowledge of the existence of certain bodies independent of the percipient and of certain spatial relations between them. Without this knowledge, there is no process left to describe. Hence if Mr. Russell's account of the 'construction' of 'perspective' space has any fact corresponding to it at all, it presupposes the truth of the very beliefs of common sense which it is his main object to supplant.

We have now to turn to Mr. Russell's account of 'a thing'. Here Mr. Russell's paradoxes reach their climax. The surprising nature of his account is focussed in his definition of 'a thing'. 'A thing' of common sense, *i.e.* really a body, is again and again defined as the class, or the whole class, of its appearances. *Prima facie* the definition is exposed to two fatal objections. In the first place the word 'its' suggests that the definition is not merely covertly but explicitly a definition of 'a thing' in terms of itself. In the second place common sense would object that we do not mean by 'a thing,' *i.e.* 'a body,' the class of its appearances or even any class of appearances, and that therefore at best Mr. Russell can only be defining something else which he manages to refer to as 'a thing' by giving the phrase a new and artificial meaning of his own.

Now these difficulties can be met. Thus in one place

Mr. Russell in defining 'a thing' substitutes for 'its' a phrase which does not refer to the 'thing'. 'Thus a thing may be defined as a certain series of appearances connected with each other by continuity and by certain causal laws.'¹ Again Mr. Russell's account of 'construction' shows that 'defining' is one of the many terms to which he gives a new and peculiar meaning. It shows that when, *e.g.*, Mr. Russell speaks of '*defining*' 'a thing,' he does not mean, as we ordinarily should, formulating the fundamental nature of the realities referred to as 'things,' but formulating the nature of certain assemblages or groups of other realities which will have the same properties as things and which therefore can be considered substitutes for them.² Hence Mr. Russell can fairly meet the objection that he does not really *define* 'a thing,' by urging that he has never professed to define a thing in the ordinary sense of 'define,' and that all he has done is to state the nature of another reality which will do as well, *i.e.* have the same properties.

These difficulties therefore can be set aside as due to obscurities of statement. But the question arises whether their place is not taken by difficulties and fatal difficulties of substance.³ Thus it is involved in a 'definition,' in Mr. Russell's sense that if an X is defined as a certain group of realities, the group must have those properties of an X which common sense and science presupposes an X to have. And this is also involved in Mr. Russell's main doctrine. For after all what his view comes to is that though we are not entitled to speak of things and atoms, in the sense in which common sense and science speak of them, since such realities are essentially unverifiable, we can justify the retention of the language of common sense and science by finding groups of other and indubitable realities which will have the properties of the things and atoms of common

¹ L., 106.

² This peculiar and artificial use of the term 'define' explains what otherwise would be unintelligible, *viz.* Mr. Russell's habit of speaking as though we can overcome certain difficulties about certain realities, such as changes and movements, by a new definition of them. Of course if 'defining a change in a particular way' means formulating the nature of something which is not a change, but which will act as a substitute for a change, a difficulty which can be raised about a change may not apply to the reality, not a change, which is represented as a substitute for it. Yet the difficulty is only postponed, since if the substitute for a change escapes the difficulty just because it is not a change, it cannot be expected to act as a substitute for it. Mr. Russell does not seem to have asked himself whether it is *possible* to define such realities as changes, movements, or bodies.

³ For the difficulty which takes the place of the first, see pp. 175, 176.

sense and science, and then making the terms 'thing' and 'atom' refer to these. Hence it is involved in Mr. Russell's view that in any common sense or scientific statement, we are justified in substituting for the phrase 'a thing' or 'an atom' Mr. Russell's so-called definition of a thing or an atom, and for the phrase for a species of thing or atom, *e.g.* an orange or a hydrogen atom, Mr. Russell's definition with the addition of some differentia. In fact it may be said to be Mr. Russell's chief object to vindicate common sense and scientific language in this way. Hence it would not satisfy Mr. Russell's view to hold that in order to state what is true, we must discard the terms 'thing' and 'atom' altogether and express the facts of experience in substantially Berkeleian language—as Mr. Russell does when he says *e.g.*, "All that is really known is that the visual appearance in question, together with touch, will lead to certain sensations".¹ On Mr. Russell's view, in order to state what is true, we can retain the terms 'thing' and 'atom'—and for that matter the other terms which Mr. Russell 'defines'—*provided that* we give these terms new meanings, *viz.* those given in Mr. Russell's definitions. Thus the common-sense statement, 'My pen dropped upon the floor,' will be true if, though only if, it means 'A certain class of appearance dropped upon another class of appearances'. And 'Bodies move' will be true if, though only if, it means 'A certain classes of appearances move'. 'I see a chair' will be true if, though only if, it means 'I see a certain class of appearances some of which occurred in the past and others of which will occur in the future'. The fatal objection of course is whatever be the meaning which these statements ought to bear if they are to be true, the meaning which has thus to be assigned to them on Mr. Russell's view is one which renders them certainly false. In fact Mr. Russell's view is exposed to the familiar objection which Berkeley quotes against himself, though in a different form: 'After all, say you, it sounds very harsh to say, we eat and drink ideas, and are clothed with ideas.' If for 'ideas' there be substituted 'series of appearances,' this objection applies to Mr. Russell.

The objection may seem to fail from its very obviousness; and Mr. Russell would probably retort that his doctrine has not been interpreted fairly and that an instance of his own will supply the necessary correction. 'We say, for example, that things change gradually—sometimes very quickly, but not without passing through a continuous series of inter-

¹ L., 80.

mediate states. What this means¹ is that, given any sensible appearance, there will usually be, *if we watch*, a continuous series of appearances connected with the given one, leading on by imperceptible gradations to the new appearances which common sense regards as those of the same thing.² But this really only succeeds in describing a perceived change of a body in Berkeleian language. There is no attempt to retain the language of common sense, by introducing the suggested change in the meaning of the term 'thing'. If Mr. Russell had done so, the 'proper' meaning would have run: 'A certain series of appearances changes gradually,' and the falsity of the statement would have been obvious. For a series of momentary events does not change and is not even identical with a change. As the despised Kant remarked,³ coming into being and perishing are not changes of that which comes to be or perishes. Change is but a mode of existence, which follows on another mode of existence of the same object. Moreover not only does the whole drift of Mr. Russell's argument imply that he wants to justify the retention of the words 'things' and 'atoms,' but he practically says so. Thus after defining a thing as a certain series of aspects, he continues: 'Every thing will then proceed as before; whatever was verifiable is unchanged but our language is so interpreted as to avoid an unnecessary metaphysical assumption of permanence'.⁴ And again he says: 'Thus we may lay down the following definition: *Things are those series of aspects which obey the laws of physics*'.⁵ This *must* mean that it is true to say, e.g., of certain series of aspects that action and reaction are equal and opposite or that they attract one another inversely as the square of the distance.

Mr. Russell may reply that words like 'attract' and 'action' should also be given new meanings. But if this process be fully carried out, we shall be left with nothing but language appropriate to Berkeley, and with no justification for retaining *any* of the language of common sense and science, and, in that case, unless I have entirely misunderstood Mr. Russell, his whole mission will have gone. In fact, if Mr. Russell were to persist in this contention, it would be difficult to see any substantial difference between his view and that of Hume, except that Hume did realise

¹ I take it that 'means' means 'must mean, if the statement is to be true'.

² L., 106.

⁴ L., 107.

³ *Critique of Pure Reason*, B., 230.

⁵ L., 110.

that on his own view there was no room left for the language of common sense and science at all and that Mr. Russell would not.

We have not, however, exhausted Mr. Russell's 'paradoxes'. It is difficult enough to regard a certain series of appearances as a substitute for a 'thing' or body of common sense, if the appearances in question are supposed to belong to one person's perspective, *i.e.* private world without a percipient. But Mr. Russell's class or series of appearances which is to take the place of a body include appearances belonging to different private worlds without percipients. Some of them therefore are in one private space and some are in others. What unity therefore can they be expected to have? And not only this, but every appearance which goes to make up the substitute for a body is, as I have urged before, in three different spaces. Hence the assemblage of realities which is to replace the thing and which ought, on Mr. Russell's view, to be what we really see is a curiously confused and confusing assemblage.

We may now endeavour to discover the real nature of the problem with which Mr. Russell is confronted. To do so, we must first analyse what we really mean when in common with Mr. Russell's 'common sense,' we use such terms as 'appearances,' 'things,' and 'appearances of things' and what is the thought which underlies our use of them. Considering that two of Mr. Russell's main objects are to find true 'interpretations' of 'things' and 'appearances of one thing,' nothing is more remarkable than the absence of any such analysis. There is, of course, a full account of what we *ought* to mean by such terms, this being what Mr. Russell calls the true interpretation of them. But this is no substitute. For if a false view is to be replaced by a true one, the precise nature of the false view must, of course, first be determined. Moreover 'appearances' is, I think, the one fundamental term taken from ordinary speech of which Mr. Russell neither offers nor attempts to offer a new and peculiar definition of his own. Presumably, therefore, when Mr. Russell uses it as part of his own philosophical vocabulary, he means it to be understood in its ordinary sense. Hence—and especially since it is really the most fundamental term in Mr. Russell's own philosophical vocabulary—we should expect Mr. Russell to think it important to ascertain what we, as common-sense beings, do mean and imply by it.

Now if we reflect, three things become clear. In the first place, we use the phrase 'an appearance' as a relative, and

a doubly relative, term. We mean by it not merely an appearance presented to some one, but an appearance of, or presented by, a thing. In the second place, we mean here by 'a thing' a body. So much is this so, that if some one did not understand what was meant by 'a body,' he could not possibly be brought to understand what was meant by 'an appearance'. Hence if Mr. Russell were to urge, as I think that from his own standpoint he should, that as we do not and cannot have experience of a body, the phrase, 'a body,' as used by common sense, cannot have a meaning, he would be exposed to an obvious *argumentum ad hominem*, viz., that in using, and allowing others to use, the phrase, 'an appearance,' he is implicitly allowing that not only it but the phrase to which it is relative is significant. Hence also if, as Mr. Russell thinks, we are somehow directly aware of what are called appearances, we must also be directly aware of what are called bodies, since the apprehension of the one must be inseparable from that of the other. In the third place, when we speak—as Mr. Russell does also—of the appearance presented by a thing, we imply not only that we are seeing something, but that the something seen is the thing, i.e. the body, and not the appearance. This becomes obvious when we reflect that if we thought, as Mr. Russell thinks, that what we see is the appearance, the statement that the thing *presented* a certain appearance to us would lose all meaning. It would be, of course, irrelevant to object that we *ought* not to imply this on the ground that we do not see bodies; and, in any case, it can, I think, be successfully made out that even in the case of illusions what we see is a body. Thus if I am said to be looking at myself in a glass, there is no difficulty in allowing that what I see is my face, and not an image on the glass, though no doubt it presents an appearance similar to that which my face would present to some one else, if I was behind the glass and he was where I am now.

It is also clear that we know perfectly well what we mean when we speak of something as a body and also what we mean when we speak of something as an appearance presented by that body. Again it is clear that we mean by 'a body' and 'an appearance presented by that body,' realities which, however closely related they may be, are different in kind from one another and from everything else. We do not think it possible to express the nature of the appearances presented by bodies in terms of bodies or *vice versa*; nor do we think it possible to express the nature of either in terms of any other realities.

It is also clear that we mean by 'appearances of one thing' appearances presented by *one and the same* body. And if we allow, as we must, that by 'an appearance' we mean the appearance presented by a body, the phrase 'appearances of one thing' presents no speculative difficulty whatever. For since it is involved in what we mean by a body that what is so designated is no momentary reality, there is no difficulty in allowing that certain bodies presenting certain appearances on different occasions may turn out to be the same.

It is also clear that when we speak of certain appearances as appearances of one thing, we imply that the appearances have a certain unity. This again presents no speculative difficulty. For since we mean by 'the appearances of one thing' the appearances presented by one and the same body, the appearances so designated must, as appearances presented by the same body, have a unity. We can thus find intelligible a statement of Mr. Russell's which I venture to think Mr. Russell, on his own principles, cannot, *viz.* 'Every aspect¹ of a thing is a member of two different classes of aspects, namely: (1) the various aspects of the thing, of which at most one appears in any perspective; (2) the perspective of which the given aspect is a member'.² For if 'an appearance' means not merely an appearance presented to some one but also an appearance presented by a body, we can think of appearances as forming groups or unities in two ways. We can think of the appearances presented to a given person as forming a unity, whether they are presented by the same body or not; and we can think of the appearances presented by a given body as forming a unity, whether they are presented to the same person or not.

Further, if we grant, as we must, that the phrases 'an appearance,' 'a thing,' and 'appearances of one thing' have these meanings and implications, two other facts become clear. (1) On the one hand not only do we never speak of a process by which we advance from a knowledge of appearances to a knowledge of things but to speak thus would be nonsense. For if we are aware of appearances at all, we are *eo ipso* aware of them as appearances of bodies and are therefore also aware of bodies. (2) On the other hand not only do we speak of a process by which we advance from a knowledge of certain appearances presented

¹ Mr. Russell throughout appears to use 'aspects' as a synonym for appearances.

² L., 92.

by things to a knowledge of them as appearances of one thing but it is sense to do so. We mean a process by which we come to learn that the appearances presented by what at first we do not know not to be different bodies are appearances presented by one and the same body, by discovering that the bodies which presented the appearances are really one and the same. And it is easy to find actual instances within our experience. I can ask, 'Is the fountain pen which I now see the same as the fountain pen which I saw yesterday?' Suppose, however, I did not know that the bodies seen were fountain pens or even pens. I might ask myself, 'Is the body which presents certain appearances to me now the same body as that which presented a certain appearance to me yesterday?' Similarly if I am watching a river, without knowing whether there is a current, I could ask myself, 'Are the various portions of water which I see at different moments the same?' And if my level of knowledge were lower, I could ask myself, 'Is the body which presents certain appearances to me at this moment identical with the body which presented a certain appearance to me at some previous moment?' And such questions are often answered. Moreover when we answer such a question, we do so by deciding that the bodies which present the appearances are the same. Further we cannot decide that the bodies are the same simply by reference to the appearances which they present. For it is involved in the very meaning of the phrases 'a body' and 'an appearance presented by a body' that two bodies may present precisely similar appearances without being identical. And, in fact, to decide the question we appeal, and have to appeal, to our belief in certain empirically derived causal laws,¹ and to certain *a priori* knowledge which underlies these beliefs, such as our knowledge that bodies, or at least the constituent bodies of which they are made up, are indestructible, that if a body is first at one place and then at another, it must have moved through the intervening space, and that all physical processes exhibit causal necessity. It is for such reasons, for instance, that I cannot doubt my conviction that the pen which I have been continuously looking at is one pen and not several, each one of which in turn has suddenly taken the place of another. Again the existence of such processes involves no speculative difficulty. For since we mean by 'an appearance' an appearance pre-

¹ As Hume realised. (*Treatise*, i., 3, 2) and as Mr. Russell seems to feel (L., 109).

sented by a body, there is no difficulty in allowing the existence of a process by which we learn that certain appearances are appearances of the same body. There would only be difficulty, if by 'an appearance' we meant—as we do not—something which was just an appearance and was not an appearance of anything. And since it is implied that it is not the appearances but the bodies which we see, there is no difficulty in allowing that we can decide that certain appearances are appearances presented by the same body by deciding that the bodies which present them are really the same.

Mr. Russell would, of course, deny that there *can* be such processes, since it is not bodies but appearances which we see. But if Mr. Russell persists in this denial, then in consistency he ought, when stating what he takes to be the truth, not only to abandon—as he does—the use of the term 'body' but also to abandon—as he does not—the use of the term 'appearance'. If Mr. Russell maintains that common sense is not justified in speaking of things, *i.e.* bodies, he is bound also to maintain that neither common sense nor he himself is justified in speaking of appearances. Yet Mr. Russell cannot possibly afford to abandon the term 'appearances' for, as I hope to be able to show,¹ it is only in terms of the 'appearances of one thing' of common sense that Mr. Russell succeeds in 'defining' 'a thing' at all.

We may now consider, in the light of this analysis, the nature of the problem with which Mr. Russell is confronted when he seeks to 'define' 'a thing' of common sense. Mr. Russell, of course, uses the phrase 'an appearance' as an absolute term, *i.e.* as a phrase standing for a reality which has a nature in itself, *i.e.* without reference to something else. It stands neither for an appearance to some one, nor for an appearance of a body. This is no accident of terminology; for the usage corresponds to his real view, which comes out, *e.g.* when he speaks of our 'seeing two finitely different appearances,'² and again when he speaks of our 'starting from a world of helter-skelter sense-data'.³

Now, in the first place, to be successful in 'defining' a thing, Mr. Russell has to find a characteristic of certain appearances which will render them such that, as a group, they, though not a body, will have the properties of a body. But from the preceding analysis it is clear that this task must be impossible. Since it is involved in the very nature of the realities referred to as appearances and of those referred to

¹ P. 181.² L., 108.³ L., 107.

as bodies that they are different in kind, the nature of neither being reducible to that of the other, then, however closely appearances may be related to bodies, no appearance and no group of appearances can possibly form a substitute for a body, in the sense of having the same properties. Hence *whatever* be the characteristic which Mr. Russell selects to distinguish the appearances which, as a group, are to be a substitute for a body, he is found to fail. The mere fact that the group of appearances selected is *a* group of appearances,—apart from what constitutes it a group of a particular sort is enough to destroy its claim to be a substitute for a body.

In the second place there is another side to Mr. Russell's task. He has not merely to find a characteristic of certain appearances which will render them such that, as a group, they will have the properties of a body. He has also to show that the characteristic which he selects will render the group identical with a group which common sense would describe as appearances of one thing or body. For the thing of common sense, for which it is Mr. Russell's object to provide a substitute, is the thing of which, according to common sense, certain appearances are the appearances. Mr. Russell grants that common sense is right in speaking of certain appearances but wants to find a substitute for the thing of which they are the appearances. Now if the characteristic on which Mr. Russell fixes give rise to a group of appearances different from these, and forming simply another group, there will be no reason for supposing that this group has anything whatever to do with the thing of common sense and hence none for supposing that it can possibly act as a substitute for this thing. In any case, whether Mr. Russell is bound to hold this view or not, he does hold it.¹

¹ That Mr. Russell must hold this view can be seen in another way. Mr. Russell has not only to give the 'true interpretation' of 'a thing' of common sense; he has also to give the 'true interpretation' of the common-sense phrase 'appearances of one thing'. But there must be this difference. While the 'interpretation' of 'a thing' is to consist in finding a substitute for it in some other reality, the 'interpretation' of 'appearances of one thing' must consist in describing the same reality as that to which common sense refers but in describing it differently. For while in the case of 'things' common sense is speaking and thinking of realities of which it has no right to speak and think, in the case of appearances this is not so. What is the matter with common sense here is that in describing certain appearances as appearances of one thing it is misdescribing them, since, to be truly described, they must be described without reference to a body, a body being something of which we have no right to speak. Hence it is implied that the appearances of one thing, in Mr. Russell's sense of the appearances which, as a group, are a sub-

'A thing,' he says, 'will be defined as a certain series of aspects, namely those which would commonly be said to be of the thing.'¹ Hence Mr. Russell has to show that the distinguishing characteristic of certain appearances which renders them a thing, in his sense of 'a thing' will render them identical with the appearances of one thing of common sense.

But can Mr. Russell possibly succeed in doing this? 'The appearance of one thing' of common-sense *means* the appearances presented by one and the same body. The appearances so referred to, therefore, form a group the unity of which arises from the fact that the bodies presenting the appearances are one and the same. Now Mr. Russell's task is really to find as a characteristic which renders those same appearances a unity one which the appearances possess in themselves, *i.e.* apart from any relation not merely to one and the same body but even to any body at all. But, even if it were possible to think of appearances without thinking of them as appearances of a body, how could any characteristic possessed by certain of them, *so considered*, possibly render them a group or unity such that they would also necessarily have the unity of being appearances presented by one and the same body? There *could* be no such characteristic. For the appearances meant when we or common-sense speak of appearances of one thing, derive their unity solely from the fact that the bodies which present the appearances are one and the same. This, I venture to think, is the true inwardness of what must otherwise be considered Mr. Russell's strange definition of a thing as the class of *its* appearances. Whether Mr. Russell is aware of it or not, this definition is really a tacit confession that what distinguishes, and what alone distinguishes, the appearances which as a group are Mr. Russell's 'thing,' is the fact that they are the appearances of one and the same thing, of common-sense. And it may be noted that this fact not only explains how Mr. Russell comes to 'define' a 'thing' in the class of *its* appearances, but frees the definition from the charge of circularity. For the 'its' really refers not, as the language suggests, to what Mr. Russell is formulating the nature of, *viz.* his substitute for 'a thing' of common-sense, but to the 'thing' of common-sense itself. Again the same admission is implicit in Mr. Russell's definition of a thing as a certain series of aspects,

stitute for a thing are identical with the appearances which common sense describes as appearances of one thing, *i.e.* one body.

¹ L., 107.

namely, those which would commonly be said to be of the thing.¹ In any case it is plain that the appearances of which Mr. Russell is really thinking when he defines a thing, in his sense of 'a thing', are the appearances presented by one and the same body. Since then their unity comes simply from the fact that the bodies which present them are one and the same, it does not matter what he represents as their distinguishing characteristic when he tries to distinguish them without reference to the thing or body of common-sense. Whether Mr. Russell represents it as consisting in obedience to the laws of physics or as consisting in anything else, his account is bound to fail.²

Further, if we grant, as we must, that, whatever Mr. Russell may say, he really only succeeds in distinguishing even to himself the appearances which are to be the substitute for 'a thing' of common sense by thinking of them as the appearances presented by one and the same thing, we see that Mr. Russell, in stating the true view which is to supersede that of common sense, has to presuppose the truth of the very view which it is his object to supersede. For there cannot be appearances presented by one and the same thing, unless there is such a thing as one and the same thing or body, and therefore also unless there are such things as bodies. Since then Mr. Russell's substitute for a thing is really reducible to the appearances presented by one and the same body, to speak of the existence of this substitute is to imply the reality of the very thing for which it is to be a substitute, *viz.* a thing or body. Hence whether Mr. Russell's substitute for 'a body' of common sense will do as a substitute for it or not, the very terms in which this substitute has to be described presuppose the existence of bodies, and consequently Mr. Russell's view that there are these substitutes covertly implies that common sense is speaking and thinking truly when it speaks and thinks of bodies. The point—and I venture to press its importance—may be expressed slightly differently by saying that, whether the view which Mr. Russell takes to be the true view which is to re-

¹ L., 107. The italics are mine.

² It may now be noted that the group of appearances which form Mr. Russell's substitute for 'a thing,' cannot even be a *class* of appearances, as Mr. Russell's definition implies that it is. When we speak of certain realities, *e.g.* Tom, Dick, Harry, etc., as forming a class, *e.g.* the class of men, we imply that they are particulars which form a unity in virtue of there being particulars of one and the same *universal*, *e.g.* manness. But the appearances which are appearances of one and the same thing are particulars which derive what unity they have from their relation to another *particular*, *viz.* the thing of which they are the appearances.

place that of common sense be true or not, it is impossible even to *state* it without falling back on the language of common sense and therefore without presupposing the truth of the thought which underlies this language.

Another consequence emerges as soon as we realise the real nature of Mr. Russell's substitute for a body. It appears that when Mr. Russell professes to 'define' '*a thing*', i.e. to formulate the nature of a substitute for it, what he actually 'defines' is not '*a thing or body*' but '*one and the same thing or body*'. For that for which the appearances of one thing are a substitute, if they are a substitute for anything, is not '*a body*' of common sense but '*one and the same body* of common sense', viz. that one body which on different occasions presents the various appearances. Thus Mr. Russell never succeeds in offering what it is his primary object to offer, viz. a definition, in his sense of 'definition', of '*a thing*', but where he is under the impression that he is doing so, he is really only offering a definition of '*one and the same thing*'.

If we ask ourselves how Mr. Russell is thus unwittingly taken in, we shall see, I think, that Mr. Russell never faces two of the most important problems which he has to face. Mr. Russell has to 'define' a thing not merely in order to exhibit the nature of his substitute for it but also because from his standpoint there must be a process by which we advance from a mere knowledge of appearances to a knowledge of 'things' in his sense of things and this process will imply as a pre-condition the definition of a thing, in Mr. Russell's sense of 'definition'. This process Mr. Russell introduces thus: 'Starting from a world of helter-skelter sense-data, we wish to collect them into series, each of which can be regarded as consisting of the successive appearances of one 'thing'.'¹ Now the terms which Mr. Russell here uses to describe the result of this process show that the common-sense process of which this must be the 'true interpretation' is the process already referred to by which we learn not that certain appearances but that certain appearances *presented by bodies* are appearances presented by one and the same body. It cannot be a process by which we learn that certain *appearances* are appearances of one body. For not only neither is there nor can there be any such process, but if there were supposed to be such a process, it would have to be considered two processes and not one. For how could we be supposed to discover that certain appearances were appearances of *one* body, unless we

¹ L., 107.

were supposed to have already discovered by a prior and different process that they were each an appearance of a body? Hence if we bear in mind that Mr. Russell's process, if it is to be conducted, avowedly requires that definition of Mr. Russell's which is ostensibly the definition of a thing, it becomes obvious that Mr. Russell is thinking of the process by which we learn that certain appearances *presented by bodies* are appearances presented by *one and the same* body as if it were a process by which we discover that an *appearance* is an appearance presented by a body.¹ It is this which explains why when Mr. Russell is 'defining' *one* body, what he thinks he is doing is to define *a* body. And it shows that, whatever Mr. Russell may think he is doing, he does not face two problems the solution of which is from his standpoint vital. He is bound (1) to be able to make out that there is a common-sense process by which, starting by thinking of appearances just as appearances, we come to think of them as appearances of bodies, and, having done so, he is bound (2) to give the 'true interpretation' of this process, this interpretation requiring a 'definition,' in Mr. Russell's sense, of *a* thing. Mr. Russell does not do either and he does not do so because when he thinks he is doing so he is really doing something else.

I venture to think that if Mr. Russell were to address himself to these two tasks, he could not possibly achieve them, simply because there is, and can be, no such process, and therefore, also, no process to interpret. I venture also to think that—with the exception of the fact that Mr. Russell's own account of the truth is throughout only intelligible to us at all because we possess the common-sense view and that it really, though covertly, presupposes the truth of that view—the impossibility of making out the existence of any such common-sense process constitutes the greatest difficulty with which Mr. Russell is confronted. The difficulty may be put in a slightly different form by asking Mr. Russell to ask himself the question which, as has often been remarked, Berkeley did not, and Hume did, ask himself and see the importance of asking. I think that Mr. Russell especially should ask it, because, as it seems to me, in spite of all the difference of language, Mr. Russell has more affinity with Hume than with any other philosopher. The question is simple. If Mr. Russell is right, if his sense-data—mis-called appearances—are all that we are directly aware of in percep-

¹ Kant seems to me to make what is substantially the same mistake. Cf. my *Kant's Theory of Knowledge*, p. 182.

tion, if, in consequence, there is no ground whatever for the common-sense belief that there are such things as bodies—and if, consequently, all the common-sense beliefs implied in the use of such phrases as ‘the appearances presented by a body’ or ‘the different appearances presented by the same body’ are mere illusions, then how did these illusions and the corresponding language arise? This question, as Hume saw, *must* be answered, and it is surely obvious that if Mr. Russell were to undertake this task, he would inevitably share Hume’s failure to achieve it.¹

¹Since the above was written, Mr. Russell has told me (1) that he means his definitions to be understood as literally definitions in the ordinary sense, and (2) that while, of course, he does not believe that there are such things as bodies, his ‘constructions’ are only fictions. I confess that in reading the *Lowell Lectures* several passages (e.g. pp. 93, 113) suggested to me that Mr. Russell held his ‘constructions’ to be fictions, but I thought that Mr. Russell could not possibly mean this. Now, however, I am more than ever at a loss to see any plausibility in his view. If Mr. Russell’s definitions are meant to be really definitions, how can any of them be anything but transparently false, and when common-sense statements, as ordinarily understood, are expressly held to be false on the ground that the realities to which they refer do not exist, how can it be thought possible to give them a true meaning by making them refer to fictions? So far as I can see, Mr. Russell’s views have their origin in the hypnotic influence of pseudo-geometries, which has led to an empiricism, i.e. a distrust of thought, so extreme, that what is practically his own distinction between ‘verbal’ and ‘real’ thought (cf. p. 163) has ceased to have any importance for him. I venture to suggest to Mr. Russell that he should for a time forego the exercise of his ingenuity in the higher regions of ‘logical manipulation’, and—with the distinction between ‘verbal’ and ‘real’ thought in mind—consider whether *all* the presuppositions of the ‘new logic’ may not be fundamentally false, whether in fact the ‘new logic’ may not be after all only an attempt to escape the consequences of old errors—errors which some at any rate had been disposed of once for all in the history of philosophy—by the addition of others which though new are none the less gratuitous.

II.—LOTZE'S RELATION TO IDEALISM.

BY E. E. THOMAS.

PART I.

It may be said that the questions with which modern philosophy concerns itself most move around one great problem, namely, that dealing with the nature of the unity of reality. That the world is a unity is what no one does, or can, seriously deny; even the pluralist cannot hold that the ultimate members of his pluralistic universe are so far disconnected and separate as to be in no respect whatsoever related to one another. To hold that this is the case would be to cut away the grounds for maintaining that the world is a many. Before we can say that things are a many these things must be comparable in some respect or another, and to be comparable they must all find a place in some unity, the principle of which is involved in the comparison. The great question which divides philosophy is as to whether this unity of the world is that of an order, which is prior to the relationships of souls, or that of a relationship of souls determining an order, to which it is therefore prior. Now it is undoubtedly true that there is order, system, or structure in the world. The task of the various sciences consists in discovering and in giving expression to the nature of this order. But to hold that there is order in the world does not involve the holding of the further view that the fundamental unity of the world is one of order. It may be held that order is derived; that it is created in and through the medium of a relationship of minds, which constitutes the more fundamental unity of reality. Lotze's philosophy shows, in a very marked way, the conflict between these two points of view. The development of Post-Kantian Idealism had gone to show that the order in the world possesses a necessity and universality which demand that this order shall possess a self-subsistence of its own, giving it a determining power over all that is and that takes place. At the same time, Idealism had failed to show how this order could take individual minds into itself, and

this failure seemed to point to the view that individual minds and their unity are a something as fundamental and ultimate in the constitution of the world as is order or system. Thus the task of any philosophy following upon Idealism is that of showing how the necessity of order and the plurality of individuals are connected, and it is around this problem that the philosophy of Lotze turns. It cannot be said that Lotze has established any definite conclusions with regard to it, but the whole detail of his philosophy is penetrated through and through with the conflict of opposing views, and in this it serves to clear the ground for reconstruction.

The first thing we have to do is to examine the Idealist view that the fundamental unity of the world is one of order or system. Idealism first took its rise in a theory of knowledge and sought to pass from this to a theory as to the nature of being; from an examination of the principles of knowledge it sought to determine the relation between knowledge and life, between knowledge and reality; it made the principles which underlie knowledge identical with those which underlie reality. With the Idealists knowledge was the determining factor in reality; they held that it is only through knowledge that the structure of reality comes to exist; hence for them, reality was something penetrated through and through with knowledge, and knowledge was a something holding within itself, and through which alone could exist, an ultimate or completed reality. The development of Idealism consists in showing how knowledge gives to reality a structure which is universal and necessary.

Hume made the presupposition that knowledge can only exist if it reveals to us connexions of content penetrating into, and being constitutive of, the matter of our experience; that further, such a system must be expressed by thought in the form of judgments possessing universality and necessity. But he had also shown that any attempt to make connexions between the elements of our experience factual or psychological, *i.e.* something existing in the same way as an actual content of our experience, fails altogether to establish any real system as existing within our experience. If we take any such connexion and try to determine of what it really consists, we find ourselves with nothing in our hands beyond the bare contents of the separate entities supposed to be connected together. From this he drew

the conclusion that experience can never give us a knowledge of reality. The answer of Idealism to the Scepticism of Hume consisted in finding a connexion within reality which is not factual or psychological but logical ; and its great problem is that of showing how logical connexions can penetrate into, and be constitutive of, the reality which is given in perceptual experience.

Leibnitz indeed had already maintained that experience possesses a logical aspect. He saw that if we take certain principles which we use in mathematics, and reason in reference to experience on the basis of these principles, we arrive at universal and necessary truth about this experience. The universality and necessity which experience gains through being brought into relation with mathematical principles consists in this : first that it subjects itself to calculation on the part of the mind which knows it ; secondly that this calculation is guided by the ideas of infinity, absolute equality, etc., these ideas being supplied by reason ; thirdly that reason as consisting of these ideas is a sphere of self-subsistent reality possessing universality and necessity in its own right. But he further maintained that the connexion of reason with the content of experience is accidental and external, and also that this connexion does not render experience a structural whole. The first of these positions he established by an argument which runs as follows : While it is possible to distinguish two moments in any object, namely the material which is ordered, and the mathematical which is order, and while we can see that both of these are involved in any actual constructive activity of our experiencing mind, still they do not belong inherently together. If we take any material content we find that in whatever particular mathematical proportion we divide it, we shall never exhaust it, for we shall never arrive at its ultimate parts. In order to do this we should have to divide it to infinity, when we should obtain something which cannot be divided further ; this something would be content, and only content, and mathematical ideas would not be applicable to it. Again, taking the mathematical moment we find that it extends itself out into a sphere into which content does not enter. In order to perform any mathematical operation upon any content we have to make use of certain conceptions ; if we want to add A to B we have to suppose that both A and B remain identical with themselves. But in any experience of content, *e.g.* that of the colour on the wall, the content never for a single instant possesses identity

of being, for it runs into an infinity of change in which no identity rests. Thus the principle of identity does not belong to content and has no inherent connexion with it.

Leibnitz further widened the rift between these two moments of experience by giving to each an ultimate reality in its own right, independent of experience, in which both come together. He held that the content existing at the basis of the material existence which we experience is made up of an infinity of ultimate reals, each of which has a life of its own into which it is impossible for us to enter; that the ideas or truths of reason, from their nature, cannot be made dependent upon anything else, and hence must constitute an independent and self-subsistent reality.

But Leibnitz really failed in this attempt to keep the mathematical and the merely material moments of experience separate. He maintained that the subject matter of mathematics is ideal and therefore cannot belong to sense; he saw, however, that if mathematical ideas had no connexion with sense then it would be impossible that we should ever apprehend them. In order to become aware of such ideas we must undertake mathematical processes like those of addition, division, etc., and these processes cannot be carried out except in reference to things. Again, he found it impossible to keep sense as a something finding existence apart from, and independent of, the principles of totality which are involved in the application of mathematics to sensible objects. He saw that if mathematical ideas are not applied to sense then we cannot have an experience of sensible things, for it is through the separation of things from one another, through the numbering of them, the setting of boundaries between them that we are able to have an experience of objects. Two quotations taken from him will serve to convince us of this. He writes: "the ideas which are said to come from more than one sense, like those of space, figure, motion, rest, are rather from common sense, that is to say, from the mind itself, for they are ideas of the pure understanding, but related to externality, and which the senses make us perceive".¹ Again, "It seems that the senses cannot convince us of the *existence* of sensible things without the aid of reason".²

The second position, namely, that the connexion between reason and sense does not render experience a structural

¹ *New Essays*, English translation, by Langley, p. 129.

² *Ibid.*, p. 130.

whole, Leibnitz sought to establish by maintaining, that what we do when we apply mathematical ideas to sense, is to analyse the power of the mind in reference to its dealings with the content of experience. If we divide two lines into inches and compare them, then the process of analysis involved in the comparison is really an analysis of the power of the mind which has been exercised, first, in creating certain standards of measurement, and secondly, in applying these standards a certain number of times to each of the lines. The standards of measurement are not derived from sense and do not belong to sense; the application of these standards to sense does not alter the fundamental nature of the content of sense, nor set this content into any system of relations different from those in which, as sense content, it already stands. In exact measurement, inches, *e.g.* must be considered as absolutely equal and are therefore the same in nature as that which is infinitely small. The idea of the infinitely small, however, is not derived from sense but from reason. Again, when any contents of sense are measured and these measurements compared in calculation, the calculation only reveals to us the equality or difference of the number of times the mind can exercise its power of applying certain standards of measurement to the different contents.

But by making mathematical principles extraneous to the sense content involved in experience, and by further maintaining that the application of these principles to this content only results in giving us a knowledge of the way in which the mind can use them, Leibnitz failed to give to the actual content of experience that universality and necessity without which truth, as centring in experience, is impossible. The first task falling to Kant was of showing that mathematical principles are involved in sense, and that through their union with sense, experience is a structural whole possessing universality and necessity. In doing this, however, he developed a theory of the nature of the logical, which is much wider than that held by Leibnitz. Leibnitz held that the logical is that which is given by reason; he further maintained that the ideas involved in mathematical operations are logical, since they are given by reason. The logical came to be a mere body of ideas. True, they possessed a character of inherent necessity and universal validity, through which their logical nature and their source in reason became revealed to us; but this logical nature could not extend itself into systematic wholeness, and could not enter into, and give structural form to, the content of experience.

Kant tried to show how the logical did this. He held that calculation, through which mathematical ideas are applied to sense, is not purely analytical, and therefore possessing no determinate or structural nature of its own; on the contrary it is carried out through the medium of a process possessing a definite character and involving principles of structure or totality. Further, because guided by principles of totality, this process makes that, in reference to which it is carried out, a systematic whole. In the case of the formula $2 + 3 = 5$, we see that the calculation is only possible through the idea of addition. This idea is not a mere definition apprehended through reason; it has a content drawn from a process possessing a definite character. This process is of such a nature that, when it is carried out in relation to sense, a structural whole is constructed. When I take things and add them it is not enough to say that I build up a mere aggregate, and that this aggregate is no real whole. It certainly is a whole of a certain kind, for its various items are external to one another, and such externality is different from that principle of wholeness whereby the parts dissolve into one another's being. Now it is clear from what has been said above that calculation cannot be carried out except in reference to that which is created by the processes involved in the calculation itself. Thus the application of mathematics to experience is that through which the content of sense is formed into objects of experience. But an experience which is not of objects cannot be said to be experience at all. The principles, therefore, through which things are calculated, are principles which render experience possible. This is the meaning which Kant gives to the logical.

Kant now goes further and maintains that all the conditions under which alone experience can be of objects, constitute the form of experience. The first and fundamental condition of all experience is that of the unity of self-consciousness. Experience is because it is the experience of something by somebody. One side of this relation is often expressed by saying that experience is the revelation of reality, or that it claims to be true, or that it has an objective reference; on the other hand, reality is revealed through the medium of consciousness, which distinguishes itself from that which is revealed to it, and thus constitutes itself a subject or self-consciousness standing in relation to objects. This principle of self-consciousness resolves itself into various principles, which are all connected with one another in a peculiar non-temporal, non-factual way. Given the one

principle, then the others are necessarily involved in it. Self-consciousness must be single. In order to be able to say 'Myself' I must think of myself or experience myself as a one who remains the same throughout the awareness which I have of myself. The unity of self-consciousness involves the unity of objective existence; this unity can only come to being if existence is a whole made such by the presence within it of principles of unity or totality; principles of totality involve a plurality which has to be unified; and this plurality involves the existence of sense content. Such connexion is what is meant by a logical as distinct from a psychological or factual connexion. Thus these principles carry a universality and necessity within themselves as being the logical presuppositions of all experience whatsoever. The question now arises as to how these presuppositions can be the form of experience. Now it is undoubtedly true that experience must be of objects standing in relation to a subject. It therefore possesses a definite nature or character. We may call this nature the form of experience, but at the same time we must be careful to note that it is not form in the sense of structure or system. Strictly speaking the term form is only applicable to structure. Self-consciousness, the subject-object relation, and the unity of the world, are not principles binding fact to fact; they are involved in the nature of an experience in which fact is already bound to fact by principles such as those of cause and effect, substance and attribute, etc. It is these latter principles which constitute form as structure. While, however, these two kinds of principles must be distinguished, it is impossible to separate them; for they mutually implicate one another. Self-consciousness manifests itself in structure, and structure reveals itself in self-consciousness. Both moments are therefore presuppositions of experience. On account of this, the definite principles of structure involved in our world of actual experience are considered to be the same in nature as the principles of self-consciousness, unity in the objects experienced, etc. All of these are held to constitute a unity which is the same throughout the whole of its nature, and which is called the logical form of experience. It is logical because the principles rendering structure possible are logical, and form because structure is form. Thus Kant tried to make the fundamental unity of reality one of order, system, or structure, this structure being logical in the sense that it follows from the nature of knowledge or experience as such, in which alone objective reality can rest.

It is, however, impossible to pass logically from self-consciousness to a definite structure. Structure may be of many different kinds; it may be mathematical, historical, or purposeful; and each of these may be exclusive of the others. Hence, while the principles involved in any one of these are necessary to the definite structure which they constitute, still it cannot be held that, as possessing this or that nature, they are presuppositions of, or are logically involved in, structure as such. To maintain then, as Kant did, that presuppositions of experience are form because they give to experience a definite structure, is incorrect. The principles of structure involved in our actual experience are determined by the concrete nature of the sense content of which they are formative. The further development of Idealism depended upon the recognition of this objection, which we have brought against Kant. Idealism came to distinguish between the matter and form of experience in such a way that form came to mean the formal aspect of knowledge, and matter its content; it considered this content as being constituted by structure and that of which it is the structure. Thus the presuppositions of experience came to be identified with the logical forms through which knowledge is expressed. Further, Idealism tried to show that these presuppositions and the definite structure of experience do not stand in a line of logical development, but that they are moments in a unity more ultimate than any given by logic. It was Fichte who set Idealism on this line of development.

Fichte held that the first condition of experience cannot be a presupposition of mere form; it must be a presupposition of the indivisible unity of form and matter, the term form standing for the formal aspect of knowledge. The moment of form must be the condition of all possible forms, and itself not conditioned by any form; and the moment of content must be the condition of all possible content, and itself not conditioned by any content. Fichte finds this unity of form and content in the principle of self-consciousness. This principle, he maintains, holds within itself two moments existing in indissoluble union; these moments are those of subject and object, or of the 'I' and the 'Not-I'. In order to be aware of itself consciousness must have a content which is different from itself. In knowledge man knows *something*, namely, an actual A. Further he *knows* it by maintaining that it is itself, *i.e.*, by setting A over against A and asserting that both are identical. Logic deals with mere forms under which we know, such as A is A, A is B if it

is C, etc., and not with the content of that which is known. The science of knowledge, which for Fichte is the first thing in philosophy, deals with the necessary union of form and content, or of the *how* we know with the *what* we know. When I say 'A is A' that means only that A is identical with itself *if* it exists. In order that form and content shall be united it has to be shown that A exists, and that its existence is necessarily involved in the form of the statement A is A. This can only be done where the A is the knower or self-consciousness itself; for if self-consciousness or the I does not exist then its knowledge of itself, which is involved in the statement 'I am I,' could never exist. Now this awareness of itself on the part of self-consciousness, which guarantees or necessarily carries with it the existence of itself, constitutes the reflective side of our experience; from it issue conditions of the form of experience, conditions which are developed through the reflective process of logical reasoning. Thus formal principles connect themselves with the 'I' moment of self-consciousness. The content of experience, however, connects itself with the 'Not-I' moment of self-consciousness. Now admit, as Fichte did, that all form is derived from the first presupposition of form, namely, the principle of identity; and admit further that all particular content is derived from, or contained in, a principle of objectivity, which is united with the principle of form in the unity of self-consciousness; then no matter how each develops apart from the other, the necessity of the unity of the particular form derivable from the first presupposition of form, with the plurality of content belonging to objectivity, is guaranteed.

The great weakness of Fichte's philosophy lay in the fact that he made the principle of reflexion supreme, and sought to derive from it the objective content of existence. If the fact of the 'I's' existence follows of necessity from the fact of its knowledge of itself, and if this knowledge of itself is confined to the mere formal principle of identity, then the fact of existence must be determined by the mere form of its knowledge of itself. If this is the case, then, it would also seem that the fact, and therefore the content, of any existence whatsoever, is altogether dependent upon the logical form under which it is known. The invalidity of this position, however, can be seen at once if we take any logical form and try to derive from it any pronouncement upon actual existence. The logical form 'A is A,' when expressed as 'I am I,' may pronounce upon the actual

existence of self-consciousness; but it cannot pronounce upon the existence of anything else. A subordinate logical principle such as 'If A is B it is C,' cannot pronounce upon the existence, or the nature of the content, which finds being within self-consciousness. It may be maintained, however, that such principles as 'A is the cause of B' connect themselves with the principle of identity, and are derivable from it; and that these principles do tell us something of the nature of actual existence. Now it is undoubtedly true that we know that A cannot be the cause of B unless both A and B possess a certain commensurability, which allows the causal relation to move through it; but this commensurability of nature between the members of a causal relation is derived from the actual content and plurality of experience, and not from any logical validity which may exist in reference to this particularity and plurality. Further, the causal principle cannot tell us anything as to the actual existence of the things standing in this relation.

Hegel saw that if the principles of reflexion are to carry a necessity belonging to themselves over to a structural content, then they must not be abstract or merely reflective; they must be concrete, and objectivity or content must enter into, and be constitutive of, them. He held that if we try to analyse our experience back to its first presuppositions we shall find that a self-consciousness formed through the unity of form and content is the very first condition of knowledge, that is, of experience of reality; we shall, further, find that the first principle of self-consciousness is not that of identity, as Fichte had held, but of Being; it is self-conscious Being that constitutes the first principle through which the reality revealed in our experience can be known. If, however, we take the mere notion of Being we shall never arrive at an experience in which self-consciousness lives; self-consciousness only exists in concrete Being. Fichte had maintained that the 'I' could not exist except through the 'Not-I'. He had expressed this by saying that the 'I' goes out of itself and posits a 'Not-I' as an objective content over against which it can act, and in this activity return to itself with the fullness of concrete Being. It was extremely difficult to understand the nature of this activity; it could not be a process in time; for a mere 'I' without any content whatsoever could not first exist, and from its contentlessness produce a realm of content through which it afterwards came to move. If, on the other hand, the activity of the 'I' is

logical, then it is wrongly directed ; for it moves from mere reflexion without content, to content. We could understand concrete existence becoming reflective, abstract, and relatively contentless, but the reflective and contentless becoming concrete and full, unless it acted in relation to a content already existing apart from itself, is unintelligible. Thus, neither through a temporal process nor through a logical process can the 'I' of self-consciousness construct from itself a concrete reality. Self-consciousness and fulness of concrete reality involve one another ; self-consciousness exists in, and only in, fulness of reality, and fulness of reality is self-consciousness. While Kant had maintained that the unity of reality is one of order and had made a distinction between order and that which is ordered, Hegel maintains that reality exhausts itself in being an order or structure systematised down to the minutest detail. In this theory of Hegel's Idealism comes to its fullest development.

There is contained in Idealism, however, a tendency which leads to Anti-Idealistic views. It consists in the failure to make order self-subsistent and inclusive of all that is. Kant had to recognise the existence of individual minds, and he had to ask whether it is order that determines their relation one to another. For him, these individual minds consisted of individual wills ; we not only experience and understand things, but we will them. Just as the experience of reality involves a series of presuppositions, which are connected together in a certain way, so willing in relation to reality involves a series of presuppositions of a like kind. The principles of duty and of an objective 'ought to be' stand in the same relation to one another in willing as the principles of self-consciousness and of the unity of objective existence in understanding. Further, presupposed in duty and in an objective 'ought to be' is the principle of freedom. The will cannot act from duty unless it is free from all external determination. The inclinations of man are a something from which he may, and does, act ; but in doing so he is not acting from duty nor from anything lying within the will itself, but from something lying outside the will in the world of objective nature.

Now if will as such is free, it must be that active will is free ; active will, however, exists as the wills of persons ; hence it follows that persons, in willing, are free. The principles binding together objects of experience do not apply to them ; therefore we cannot know them in their

deepest being. They are, Kant maintains, things in themselves. Again, such wills cannot determine one another; for in that case some of them, as being thus determined, would not be free; hence the imperative of duty to treat all persons, not as instruments, but as ends in themselves. At this point, however, a difficulty arises. The ethical life is not lived in itself and by itself, apart from the objects of experience and the inclinations of the flesh; on the contrary, it has to derive its content from these. It follows from this that the things of nature, when brought into relation with the will, have a double determination; on the one hand they are determined by the categories of the understanding, and on the other hand by the categories of freedom. As determined by freedom they reach out into a world of things in themselves. In the *Kritik of Judgment* Kant set himself the task of uniting freedom and necessity. He found that if nature, or the objects of nature, are to be determined through freedom, then some measure of purpose, *i.e.* relation to an 'ought to be,' must enter into their being. He further held that the unity of freedom and necessity is expressed by us in judgments of feeling, which we pronounce upon nature; and that this unity of order and purpose is what we call the Beautiful.

The question that now arises is as to whether the Beautiful is itself an order. If it is an order, then it is difficult to understand how freedom can be subordinate to it. In maintaining that the will is free, and that the Categorical Imperative is a principle involved in this freedom, Kant recognised that persons are not related to one another through the medium of structure. According to him principles of structure are different from, and external to, that of which they are the structure; the nature of sense content constitutes an element of unreason in a world bound down by a structure involved in reason. Thus wills or persons which are related to one another through system would determine one another externally, and would not be free. But if the Beautiful is not an order, it is difficult to understand how the logical order of the world is subordinate to it. When Beauty is made to consist wholly of feeling, then the unity through feeling, of freedom and necessity, leads inevitably to mysticism, to the view that in feeling we are at one with the whole depth of reality. Such mysticism, however, excludes rather than includes knowledge.

Thus Kant failed to make the fundamental unity of reality one of order; individual souls will not reduce themselves to

being members of a system. True, Kant drew a distinction between objective reality and the reality belonging to souls as things in themselves. But such a distinction does not exclude souls from ultimate reality, which must include within itself both souls and things.

In Hegel's philosophy this anti-Idealist tendency is carried still further. It develops through a failure on the part of Hegel to make self-subsistent the form which is constitutive of reality. His views make it clear that this form has a double determination. On the one hand, reality is revealed to finite beings through a process which isolates form; whereas, on the other hand, reality exists in the medium of form. But when form is isolated by the intelligence, the principles of which it consists stand differently related to one another from what they do when this form is constitutive of reality. As it comes to us reality does not possess fulness of being; our experience does not contain within itself completeness of self-consciousness. On the contrary, it can and does exist as relatively incomplete, chaotic, unformed, and a something in which consciousness rather than self-consciousness centres. The process of experience is one in which this relatively incomplete experience comes to attain completeness, and in its completeness reveals an objective reality to the self-consciousness which thereby comes into being. This process is a reflective one. Starting from the most fundamental and comprehensive principle of existence, it proceeds logically until it has laid bare a system of principles through the medium of which the whole of reality, as revealed in experience, can be grasped as a single whole by the intelligence. Thus reflexion first isolates the most comprehensive and abstract principles, and moves through these to the more determinate. Reality, however, does not move in this way; it does not move through Being to Non-Being, and through the unity of these to Becoming; it is Being, Non-Being, and all the further determinations, at one and the same time. But if reality thus contains all these principles at once, it is difficult to see how they are related to one another within reality. In knowledge they are logically related to one another; each principle is held apart, while at the same time it is recognised that we must pass from the more concrete to the more abstract. In ultimate reality the more concrete includes the more abstract. Yet the term "inclusion" does not reveal to us the real relationship in which these moments stand one to another. Again, if we say that the more concrete *is* the more abstract,

we really deny that reality is constituted by the definite and different forms which our knowledge of reality reveals to us. Thus the form through the medium of which ultimate reality exists is only knowable to us in a way which distorts its real nature.

From such a position as this it is not far to the further position, that all reality is determined by principles, whose nature is dependent upon the fact that through them finite beings come to knowledge. If principles of form, in the way in which they determine the nature of ultimate reality, are unknowable, then knowledge and the reality given in it come to be thought of as identical; the principles involved in knowledge are the principles constitutive of reality. Again, if these principles depend upon the knowing subjects being finite individuals, then the nature of these individuals and of the relations in which they stand to one another, determine, and are prior to, the form of reality. A further stage in the development of this view is reached by Hegel when he seeks to show that the reconstruction of our experience, through the medium of thought, leads us to the contemplation of a realm of Absolute existence. He maintains that our experience of reality consists of the contemplation of an Absolute, which will not contain us because we are finite, and therefore incomplete and imperfect, centres of consciousness. To maintain this, however, is to hold the view that the whole of reality is at the same time inclusive and non-inclusive of all that is. Hegel seeks to avoid this contradiction by taking up the view that the contemplation of the Absolute leads us into its life. In the reconstruction of our experience, through the medium of thought, we arrive at fulness of being as belonging to the objects of experience; this fulness of being, however, is taken to mean existence within the Absolute, on the part of that which possesses it. We know ourselves as centres of consciousness through which the content of experience is given, and in reconstructed experience we ourselves come to fulness and perfection of being. Hegel, however, would maintain that we thereby lose our finiteness and are no longer individual persons. But if we lose our individuality, then for the same reason, things must also lose their individuality. Hence reconstructed experience could only reveal to us an Absolute possessing no concreteness of content and no definiteness of nature. Such an Absolute would be indistinguishable from nothingness. Thus individuals, as such, must find a place in ultimate reality.

So far we have not shown that ultimate reality is determined as to its form by the individual souls finding existence within it. To do this we must follow to their logical conclusion other aspects of Hegel's philosophy. He considers that it is through the world of persons that the Absolute is reached by us. He recognises it as an ultimate fact that reality is revealed in incomplete, finite, chaotic portions, and that these incomplete revelations give being to the individual mind, the finite person. The efforts of persons to make the content of their experience complete take place through a reconstructive process, which he calls Dialectic. This process, however, is logically involved in the psychological side of experience. Were there no incomplete revelations of reality it would not be necessary, in order to reach the Absolute, to go through a process which isolates Being and Non-Being, and afterwards combines the two in the conception of Becoming. Were there no dialectic process there would be no knowledge of the Absolute, and were there no such knowledge the Absolute would not exist. The logical order of the form of reality as known by us is dependent upon the fact that we are individual minds. Now reality is complete, self-conscious being, and must therefore have a complete knowledge of itself. But it cannot know itself except through the medium of a logical order which it imposes upon itself. To do this, however, it must be a finite mind standing in relation to other finite minds. Individual minds must be prior to the Absolute, and must determine the order or form in which it exists. Hegel would not have accepted such a conclusion as this. Nevertheless it represents a certain tendency in his thought.

The anti-Idealistic tendency finds a further development in the philosophy of Lotze. One of the great characteristics of Idealism is that it was a Monism dependent upon a certain view as to the place and function of thought in reality. The Idealists had maintained that reality rests in a necessity given by thought; that this necessity is that of an order which is the same for all individuals. Thus the unity of thought involved the unity of the world. On another theory as to the nature of thought and of its place and function in reality it would not be necessary to commence metaphysical inquiries with the view that reality exists in the unity of a world order; on the contrary, metaphysical inquiries might begin in Pluralism. This is where Lotze does begin them, and he is enabled to do so, because he holds a different view as to the nature

and function of thought, from that which had been held by the Idealists.

But his theory of thought, while being opposed to Idealism, was derived from a certain development within Idealism itself. This development contains three stages: first the assertion that the thought constitutive of reality is not the pure thought of the categories. Secondly, the putting forward of the view that complete or perfected experience is attained to through a reflective thought which follows upon immediate experience. Thirdly, the maintaining that reality is given in immediate experience. These positions, however, give rise to a new problem, namely, that as to the nature of the reality which is given in immediate experience, and the relation to it of reflective thought and of the experience reconstructed through such thought. It is this problem which constitutes the motive of Lotze's philosophy. The first two stages of the development mentioned above are contained in Kant's philosophy. Kant saw that reality is not given as a whole, nor in its completeness and perfection, but that it has to be attained to by the individual. This process of attaining to reality is carried out by the exercise of thought on the part of the individual. This thought, which Kant calls Judgment, consists of the subsuming of the particulars of sense under the universals of pure thought and it must therefore be both intellectual and sensuous. That is to say, pure thought, before it can be constitutive of reality, must become concrete by taking and holding within itself the particularity of sense. Sense, however, does not constitute a single order in the same way as pure thought; it is given in a multitude of finite subjects, and in each it is different from what it is in the others. Pure thought, therefore, in becoming concrete, must not only take account of this difference, but must hold it within the identity of universality. In doing this it must become dependent, to some extent, upon the nature of sense and upon the nature of the finite individual through whom sense is given. Kant, however, will not accept this position. The principles of judgment through which pure thought is applied to pure sense he calls the Schemata of the Categories. He maintains that these Schemata do not contain any elements of sense; they are the expression of methods involved in the nature of the categories to which they refer, and used by the pure imagination in order to introduce unity into the various determinations of sense so that they may be subsumed under the categories. But how, through the medium of the sche-

mata, and without taking sense into themselves, pure conceptions can be made to refer to sense, remains a mystery. And Kant recognises this. He says: "This schematism of our understanding, in its application to phenomena and to their pure form, is an art hidden away in the depths of the human soul, the secret of which we need not hope to drag forth to the light of day".¹

Kant is now driven to the conclusion that this process of rendering thought concrete follows upon an experience of the merely particular. He refuses to accept this conclusion, but nevertheless, he cannot shut his eyes to it. He draws a distinction between two kinds of judgment; the determinant and the reflective. The determinant judgment is really the schematism of the Categories, for through it the particular is subsumed under the universal transcendental laws supplied by the understanding. The reflective judgment subsumes the particular under the laws through which the system of actual experience exists, *i.e.* the laws of nature. The determination of the relation between these two kinds of judgment constitutes one of the most difficult problems of Idealism, for it is the problem as to the relation between the presuppositions of all totality and the principles of the actual totality of experience. Now Kant held that the processes of thinking pure concepts and applying them to sense through the medium of the schematised categories, take place in the same moment and in the same act as those in which the content of sense is given to us. He maintained, on the other hand, that reflective judgment is exercised after sense has been given; he calls it reflective because it starts with the particular and seeks after, or reflects upon, laws, under which it can bring this particular. This goes to show that the concrete thought constitutive of reality is mediated in ideas attained to by a process of thought which is exercised after an imperfect and incomplete experience has been lived through. It cannot be said that Kant would have accepted a view of this kind, nor is it representative of the main trend of his thought.

The third stage in the development we are sketching is reached by Hegel. He saw that we do not have to go through a psychological process of thinking, and then through a psychological process of applying the results of our thinking to the content of our experience, before we can have experience at all. He held, however, that perfection of ex-

¹ *Transcendental Analytic*, chap. i., Watson's Translation, p. 87.

perience, and therefore fulness of reality, does not and cannot exist until immediate experience is reconstructed through the medium of reflective thought, or, as he calls it, thought as form. Thought, he maintains, is contained in this first experience which, later, comes to find reconstruction at our hands. He says, "The human content of consciousness which is grounded in thought does not appear first in the form of thought, but as feeling, apprehension, perception, forms which are to be distinguished from thought as form".¹ If this is the case then reflective thought can only lead to the reconstruction of a reality already given in immediate experience. Hegel recognises this when he says: "Often has the error held sway that reflection is the condition, nay, the only way, through which we can arrive at a representation of, and to a judgment as to the truth or falsity of, that which is eternal and true. Such a statement is the same as that which maintains that we cannot eat until we have gained for ourselves a knowledge of the chemical, botanical, or zoological properties of that which we eat."²

This development of Idealism involves the position that the thought involved in immediate experience does not rest in the presuppositions of all experience whatsoever, but in the concrete nature of sense which is constitutive of actual experience. If the reality given in immediate experience is determined in its nature by the individual through whom it is given, and in whom it lives, then we are led to an anti-Idealistic conclusion, for we are forced to adopt the view that whatever order there is in the world is dependent upon the relations in which individuals, as such, stand to one another. If, on the other hand, this reality is over-individual, then the thought involved in it must be over-individual, and we are led back to the spirit of Idealism, namely, the resting of all reality in our order which is prior to the relationships in which souls stand to one another. Lotze tries to hold both of these positions, and there is, therefore, a cleft in his philosophy.

We must turn to the view, adopted by Lotze, that the thought constitutive of experience is dependent upon the nature of sense. This thought he calls intuitive, and distinguishes it from abstract, reflective or discursive thought, which follows upon experience, and whose task is that of giving expression, through the medium of abstract ideas, to the thought involved in experience. Intuitive thought is that characteristic of perception through which a plurality of

¹ *Encyclopædie Einleitung*, p. 4.

² *Ibid.*, pp. 5 and 6.

elements are gripped together in a single act, and in that act are seen to be members of a distinctive whole. This perception of totality, this recognition of a whole having a distinctive nature does not require to be made through the medium of ideas or concepts, but is something which takes place spontaneously. If, however, when we perceive anything, both the plurality of content and the principle of totality are given together in the self-same act, then it would seem that the activity which presents to us the perceptual world is a single, undivided activity. It cannot consist of two activities indissolubly fused together; nor can its product, namely, our experience of the perceptual world, consist of two elements, thought and sense, inseparably welded together. Since this is the case, how then, does there arise a distinction between thought and sense, between principles of unity and a plurality which is unified, between a subject which unifies and objects which are unified? The answer is that this distinction is a relative one. It is due to the fact that we are finite, incomplete minds, who have to gain our experience by means of a psychological process. In any completed experience, or in any experience which comes to us in a completed form, this distinction does not exist. When absorbed in listening to a piece of music the activities of perceiving and knowing, as exercised by a finite mind standing outside of, and gradually taking into itself, that which it knows, do not exist. This is brought about through the fact that the music does not come to us in pieces but forces itself upon us as a whole in its peculiar totality. There is no distinction between a knowing subject, on the one hand, and a known object, on the other; between a plurality of sounds and a way in which these sounds are connected together; but the whole mind is for the time being the piece of music, and the music itself is a distinctive totality, in which unity and plurality are lost in one another's being. It is in the psychological process of gaining knowledge piecemeal that this distinction arises. The mind is the living and active unity of its experiences. When anything new comes to be taken up into its life, this something new acts as a stimulus upon the already existing unity, causing it to give the new content a place in its life by uniting it in ways which the concrete and particular nature of the unity demands, with what already constitutes the life of the soul. This taking up of a new content into the already existing life of the soul presupposes an existing content which has already been brought to unity. In tracing the development of soul life we are continually thrown back upon an already unified content

on the basis of which all further additions to soul life are built. Hence there never could have been a time when there existed, on the one side a bare soul devoid of all sensational life, and on the other side a mass of un-unified sensations. The very crudest sensational life must already be a unity, and it is this unified sensational life, however simple, the unity may be, that forms the first beginnings of soul life. In this way soul life grows, and in and through its growth raises within itself new forms of unity, which change the nature of the developing whole. For instance a child does not first know things as being in three dimensional space and as standing in causal relations with one another; it is only gradually, and with growing experience that he comes to do so. The forms of unity which he thus comes to apprehend are, in reality, the fuller nature of the concrete, individual experience. They are not mere forms, or principles of system, or structural skeletons of experience. The causal relation is no mere relation in which things may stand to one another; it is the concrete nature of the whole which is formed by certain things in certain aspects of their being, when these things are brought together. When this fuller nature is opposed to the new, unabsorbed content, that seeks to find a place within the life of the soul, then it appears as form or abstract order standing over against that which has not yet been absorbed in it. Further, the new, in-coming content changes the nature of the whole into which it enters, and it cannot be known whether or not the development of new experiences, such as those given through increasing social and historical knowledge, may not bring it about that the causal relation, and other relations of a like kind, may have no place in our experience.

This view of Lotze's is antagonistic to that put forward by the Idealists to the effect that the soul, in unifying its experiences, is drawing upon logical presuppositions involved in the very fact of experiencing at all; these presuppositions forming an eternal order to which the psychological subject stands in some kind of inexplicable relation. What this theory of Lotze's does, is to give expression to a view, developing within Idealism itself, that the unity of reality must be sought for in the concrete nature of the content of experience. But to seek for the unity of reality here is not necessarily antagonistic to the spirit and meaning of Idealism. What Idealism seeks to do is to find the unity of reality in a self-subsistent and necessary order independent of the individual, and yet manifesting itself in his experience. It may

be held, and indeed it is held by Lotze, that sense involves such an order through the fact that it possesses a concrete nature which is independent of the individual mind in which it lives. On the other hand, it may be maintained that the concrete nature of sense is determined by the nature of the individual through whom it is given, and that therefore, whatever order is involved in sense is dependent upon the relations in which such individuals stand to one another, these relations being prior and therefore not reducible to order. This again, is a theory contained in Lotze's philosophy. The following papers will concern themselves with the working out of these views.

III.—PLATO AND THE TRIPARTITE SOUL.

By J. L. STOCKS.

§ 1. *Provenance*.—The most diligent search among the fragments of pre-Socratic thinkers fails to discover in them even the germ of anything that a modern would recognise as moral philosophy. A few common-sense precepts concerning the conduct of life, and a notion of cosmic justice as a principle preserving proportion and isonomy, preventing one of the warring natural forces from establishing a tyranny over the rest—that is pretty well all one can find to fill the empty place. If the searcher pins his faith to Diels, he will find even among the Pythagoreans hardly anything but an obscure allusion to a theory which represented virtue as a number. If he turns to the Sophists the field of ethical speculation is wider, but still not very wide. A clever rhetorical use of the antithesis between law and nature scarcely conceals the fact that we are moving still in the region of practical precept. If morality has become a problem at all, it is a problem of conduct not a problem of philosophy: the question is how to live not how to understand life. In Democritus Natorp has made a valiant attempt to discover an ethical theory of importance and influence: but though the fragments, such as they are—and many may be spurious—suggest that he had a theory, they are a long way from revealing what his theory was. And apart from that it remains to be proved (in spite of Natorp's efforts) that the writings of Democritus were known in Athens before the days of Aristotle. It is very doubtful whether Plato ever read them, and Prof. Burnet asserts roundly that he did not.

No doubt there was little metaphysics, in the modern sense, and less logic, in Greek thought prior to Socrates; but the historians of philosophy give far more credit in these fields to the pioneer work of earlier thinkers than in the field of ethics. We have been told, almost too often, that if we divide the 'flux' of Heraclitus by the 'being' of Par-

menides the result will be the Platonic 'idea'. And the Eleatics are saluted, after Aristotle, as the founders of logic. But in ethics we are asked to begin with the Sophists, and to pass from them, after a short course of Socratic logic-chopping on the theme 'virtue is wisdom,' straight to the full-blown glory of Plato. Ethics, it seems, was the latest born of the children of philosophy. It had a worldly and philistine grandfather in the Sophists, and in Socrates a heroic but narrow-minded father. Of this unpromising ancestry was born in the fourth century B.C. in or near the Academy the Platonic ethics, to be the subject of genuine but rather hesitating admiration to generations of scholars and philosophers. Admiration hesitates because, though one hardly likes to say so when the ancestry is so well-attested, the child is surely no true Greek after all. The speech is prophetic and oracular; the doctrine is mystical and ascetic; there is an all-pervading consciousness that the human soul is not at home in this world and in this body, which could not have been engendered under the Greek sun. So the shadow of a bar sinister, of a taint of colour in the blood, falls across the cradle. And that shadow has always remained. Aristotle it is true did something to remove it; but after him Stoic, Christian, and neo-platonist let the Orient loose upon us. 'Wir haben uns mit eigenen Händen die Lebensader unterbunden und hinken als verkrüppelte Judentknechte hinter Jahve's Bundeslade her!'

Such is the general impression produced by the average modern account of Plato's teaching on the ethical side. But the ancients regarded Plato as less original. They freely accused him of shameless and persistent plagiarism.¹ The *Republic* was a theft from Protagoras, the *Timæus* from the Three Books bought from Philolaus. His refutations of the Eleatics were borrowed again from Protagoras. Diogenes' account of Plato summarises a detailed proof of a deep debt to Epicharmus. Aristippus, Antisthenes, and Bryso are also mentioned as sources from which Plato 'took what he required'. It is no doubt true that much of this is only malicious gossip and cannot be supposed to rest on any substantial truth. But it does show at any rate that Plato was not regarded as an isolated phenomenon. In this paper we are concerned only with the ethical antecedents of Plato, and of preceding or contemporary philosophies only with the Pythagorean. It happens that tradition supplies connecting links between Platonism and Pythagoreanism on the ethical

¹ Zeller: *Plato and the Older Academy*, p. 38, note 94.

side which deserve careful investigation. I do not propose in this paper to undertake such an investigation: my intention is less ambitious—assuming the tradition to be in the main sound to consider where it leads. The tradition, tacitly rejected by Diels, is accepted by Burnet,¹ following Döring,² and my object is to follow out the line of thought which they indicate.

Diogenes twice asserts that Pythagoras invented the use of the Greek *φιλόσοφος φιλοσοφία* for philosopher and philosophy in place of the hitherto usual *σοφός σοφία*. For none, he said, was wise save God. Sosicrates and Heraclides of Pontus are given as authority for a conversation between Pythagoras and Leon, the tyrant of Phlius (or as another account has it, of Sicyon). Leon asked Pythagoras what he was, and he answered '*φιλόσοφος*'. Life, he said (so Diogenes continues), was like a *πανήγυρις*, i.e. like the company that assembled from all quarters at the games. Some came to compete, some to traffic, but the best came to look on. So in life, some had a slavish nature, seeking for glory or profit: but the others, the philosophers, sought truth. The parable is clearly meant to explain the meaning and use of *φιλόσοφος*. The contemplative life is the ideal, and man has two alternatives to it—the search for honour and the search for glory. This clearly implies that Pythagoras used the three words *φιλόσοφος φιλότιμος φιλοκερδής*, which are the characteristic names in Plato for the three parts of the soul, or words closely related to them. The use of *φιλόσοφος* for *σοφός* would no doubt be conditioned on the one side by the belief that the wisest are not really wise but only seekers after wisdom, and on the other by the desire for a form analogical to *φιλότιμος* and *φιλοκερδής*. But we have not to rely on a mere inference from this story for evidence of the fact that Pythagoras used the notion of a tripartite soul before Plato did. The Platonic division into *λογισμός*, *θυμός*, and *ἐπιθυμία* is attributed by Galen on the authority of Posidonius to Pythagoras, though Galen adds that Posidonius inferred this not from any writings of Pythagoras (since none had been preserved) but from the writings of 'some of his disciples'. And Iamblichus is said by Stobæus to have attributed the same view to the school of Plato, to Archytas, and to the rest of the Pythagoreans. It should be noted that the attribution of the

¹ E.G.P., § 45. *Greek Philosophy: Thales to Plato*, § 25. Cf. also Burnet's note on Plato, *Phædo*, 62 B., in his edition of the dialogue.

² A. Döring, *Wandlungen in der pythagoreischen Lehre* in *Archiv für Geschichte der Philosophie*, vol. v. (1891-92), pp. 503 ff.

tripartite psychology to the Pythagorean school is current in philosophic circles not hostile but friendly to Plato.

Now apart from the connexion with the Pythagoreans the interesting point in this tradition is the implied assertion that the tripartite psychology is an integral part of a wider doctrine, which Burnet calls the theory of the three lives, and which involves that exaltation of the activity of contemplation which is common to Aristotle and Plato and finds its noblest and most complete expression in the philosopher-king of the *Republic*. If true this is important. It would justify us in asserting that wherever we meet the exaltation of the philosophic or contemplative above the practical life we have, implicit at least, the tripartite soul. And since the praise of philosophy as the summit of human endeavour often occurs both within and without the Platonic writings without explicit reference to the tripartite psychology the range of evidence on which we have to base our interpretation of that psychology is thus immensely increased. The many ill-conceived attempts which have been made to show that the tripartite psychology is practically confined to the *Republic*, and is there forced upon Plato by a rather strained parallelism between the State and the human soul will collapse automatically: for it is easy to show that there are clear traces of the doctrine, interpreted in this wide sense, in dialogues earlier and later than the *Republic*. Besides this the interpretation of the psychology cannot but be profoundly affected by an attention to the implications of the tradition; and I shall attempt to show in this paper that if the close connexion between the Three Lives and the three parts of the soul is kept in mind a good many difficulties which have been found in the tripartite psychology seem less pressing, the so-called parallelism of State and soul in the *Republic* becomes more comprehensible, and that in general we achieve a correction of perspective which gives increased clearness and definition to the whole picture.

§ 2. *The Doctrine*.—The parable attributed to Pythagoras divides humanity into three classes, the covetous, the ambitious, and the curious, each being named after the ruling passion. But it is too much to suppose that the covetous are wholly incurious or the curious wholly unambitious. What the division specifies is the three typical motives of human action, and all three motives will be found operating at different times in every normal human soul. Thus the classification of lives or men becomes a classification of motives, or, in the vague modern sense of that word, of

desires. Every human soul has implanted in it at birth a natural tendency to seek these three things, profit, honour, and knowledge. Now in general it is true—though exceptions are to be found—that the three pursuits are incapable of combination. To seek profit is to forgo for the time being the pursuit of honour or knowledge, and, to seek knowledge is to forgo for the time being the pursuit of profit or honour. Thus *prima facie* at least it appears that human nature is three-sided, and while one side is being satisfied the other two are being starved. The counsel of the moralist might be that each side should be satisfied in turn, or it might be that one side was evil and should be starved altogether, or again that one was all-important and should receive so far as possible exclusive attention. We know as a matter of fact that the last is the advice given in the *Phædo*, and that in the *Republic* an attempt is made to show that in knowledge there is both honour and profit, so that in a sense exclusive attention to one of these three sides of our nature results in the satisfaction of all three, while exclusive attention to any other brings misery and disaster.

What Plato tries to show in the last case is that honour and profit are found where they are not sought. There is no question of interpreting the search for knowledge as at the same time a search for honour or profit, and little effort is made to conceal the fact that the honour is not what the man of honour would recognise as such and the pleasure is far different from any that the man of pleasure conceives. Nevertheless knowledge does bring with it true pleasure and, we must suppose, true honour: for the whole soul is content and at peace when knowledge is attained. This is the gist of Plato's proof that the philosopher is 729 times as happy as the tyrant and many times as strong. But there is another typical case in which two motives do, it seems, really combine, *i.e.* in which two sides of our nature do simultaneously seek and find their satisfaction. The love of knowledge leads a man, reluctantly it is true, but inevitably, to empire. The philosopher's empire is within himself and the subject over which he asserts it is his own covetous instincts. He must spare time from his preoccupation with the knowable to keep order among this multitude; and when obedience has to be enforced, the multitude proving rebellious, the love of honour ranges itself beside the love of knowledge. In regard to its true business of knowing the philosophic impulse is sufficient to itself, and the same is true it seems of the secondary task of rule when the subjects are willing and loyal and co-operate gladly; but when

rebellion threatens ambition takes the field beside knowledge, for honour as well as truth is at stake in the conflict. In this victory then ambition and philosophy together seek and find satisfaction. But both are fighting for self-preservation. And since the struggle and effort is occasioned by a defect, and the result is a removal of evil rather than an achievement of good, the satisfaction is negative rather than positive, and only for that reason is common to these two diverse motives. It still remains true, therefore, that genuine satisfaction of any one side of our nature excludes that of the others. Each has its own characteristic activity which cannot be combined with either of the others.

Socrates's counsel in the *Phædo* and in the *Republic* is that the love of knowledge should be the leading motive in life. Nothing is to stand in the way of its satisfaction. Attention to anything else is only excused by necessity. Pleasure and honour, as such, are not to be sought at all. The undivided pursuit of knowledge, and that alone, brings a man success in this world and in the next. The knowledge to be sought is called knowledge by no figure of speech: it is not a knowledge of arms or ships or houses, not a knowledge of human good nor of anything else that might be supposed to be useful to the citizen or to the politician. It is metaphysics or theology—knowledge of the eternal real—which is the title to supremacy in the soul and in the State. If this is a paradox, it is certainly deliberate and intended. No attempt is made either in the *Phædo* or in the *Republic* to show that from this metaphysical knowledge conclusions can be deduced which are directly applicable to the ordinary affairs of life. These are not the fruits of philosophy. But as preoccupation with the visible changing world of experience necessarily produces a will which is restless and variable, so the apprehension of eternal immutable reality infects the will with peace and constancy of purpose. The reward is that the philosopher grows like the divine on which he gazes.¹ The world he now knows is really one and eternal, and time and multiplicity are shadows and illusions. Responding to that knowledge his will, preserving like the world a surface of change and mutability, is in reality one and unchanging. Thus it seems that in philosophising as continuously as the body will allow the soul is not withdrawn from life but is actually finding its way through it, and similarly it is not neglecting

¹ *Thææt.*, 176 B., ὁμοίωσις θεῶν κατὰ τὸ δυνατόν. The passage is an etiological summary of the ethical doctrine of the *Phædo* and *Republic*.

der's secondary function of rule but is actually performing it. It is only when discord and disaffection arises that the business of ruling interferes with philosophy. In the temperate man loyalty and co-operation are secured, and the philosophic contemplation need never be interrupted.

To some it has been a matter of surprise that Plato counted so confidently on finding these three characters—the love of knowledge, of honour, and of profit—graven 'in larger letters' on the life of his ideal State. But if these are the three characteristic pursuits and preoccupations of humanity a State in which any is lacking would be incomplete. Any society whatever is bound in some degree to exhibit all three, even though the social organisation which is called the State refused explicit recognition to one or another. The healthy State which does no violence to nature must needs recognise all three; and the only question for Plato is in what form are they to be expressed. He is not relying on any hazardous parallel between the soul of man and the soul of the State, but on the plain fact that State-organisation must take account of every need and demand of man's nature. The activities of the community then will necessarily fall into these three classes. There will be the work of production—the economic or profit-seeking activity—the work of self-protection and self-assertion, inspired by the love of honour, and the search for truth inspired by the love of wisdom. Every State has these three interests, and in forming the ideal State we must see that the organisation makes due provision for each. So far the doctrine of the tripartite soul will carry us, and Plato does not attempt to push it any farther. He does in fact argue that each of these three interests should be in the professional keeping of separate bodies of men—honour in the keeping of the army, knowledge in that of the ruling elders, production in the hands of craftsmen who may neither fight nor rule. But the separation of classes is not based on any inference from the division of functions. That arrangement is recommended because it is likely on other grounds to be the most efficient. Certain men are to be specially trained to think for the State, certain others to fight for the State, and others again to produce for the State. This does not mean that the rulers are devoid of appetite or self-assertion, so that they cannot show courage or temperance, or that the soldiers must not think and can have no wisdom, or that the craftsmen, as some writers seem to suppose, are appetite and nothing more. As an individual in his individual relations each citizen of the State will of course so far as is proper

and possible employ all three activities and exhibit all the cardinal virtues. But each group is entrusted by the State with a special function, and the individuals composing it are, each in a certain part of his life, active on behalf of the State. All may and should have wisdom and courage, but it is only the courage of the soldiers which is the courage of the State and only the wisdom of the guardians which is the wisdom of the State. The class of craftsmen have a special function to perform, *viz.* the production of the necessities of life, but the proper performance of this function does not of itself constitute any State-virtue. For it is no virtue in a man to see that he does not lack the necessaries of life ; and the love of money or profit, is only a common and pernicious perversion of the innocent desire for a competency. No action of a man or of a State should be a seeking for wealth : that unnatural passion is the root of all evil : but all should be inspired or at least controlled by the love of wisdom, and some should be inspired by the indignant rejection of dishonour. Thus the life of honour and the life of pleasure are both excluded ; for if a man is to live for honour he must give up knowledge altogether, and if he is to live for pleasure he must give up both honour and knowledge. The life of the State must be the life of knowledge. Yet in a sense both honour and pleasure are included. Neither may take the helm, but for both there are services to perform under the command of knowledge. There are certain appetites whose satisfaction is necessary to life, and there is a love of honour which is necessary to the good life itself at least on this earth.

Life engages a man's appetites, his honour, and his curiosity. In all three fields the State is necessarily engaged ; and it therefore disposes itself into three armies, one for each field. The smallest of the three armies directs and controls the movements of the other two.

Looking back over the foregoing analysis we may distinguish three applications of the notion contained in the Pythagorean fable. (1) It originates as a division of men into three classes according to the manner of life they lead—the life of knowledge, the life of honour, the life of gain-getting or pleasure. (2) It becomes, secondly, a classification of the motives which alternately operate in every individual. There are three wills between which men from time to time hesitate, and hence the moral struggle. (3) Thirdly, in the perfect life when the love of knowledge is supreme, while the search for honour and gain as such ceases, yet the hunger for these things is not simply suppressed : one activity is

supreme, but the other two persist as strictly subordinate activities in a residual form. There are the appetites which are necessary to life and there is the self-respect which is necessary to morality. In the perfect life there is still triplicity of function though there is unity of direction or motive. Thus the three forms are no longer alternatives; they are no longer three wills between which the man hesitates: they are all present together, united for the first time after a fashion which is described by the metaphor of ruler and subject.

The account of the origin of the State in the *Republic* supplies by implication yet a fourth view of the inter-relation of these three forms; and since the implication has not, so far as I know, been pointed out I may be excused for establishing it here. The State originates as a purely economic association: Co-operation makes the necessities of life less precarious; and the infant society, the 'minimum city' (*ἀναγκαιοτάτη πόλις*), as Plato calls it, might be defined as an association for the satisfaction of the necessary appetites. Next, provision begins to be made for the amenities of life. This means that unnecessary appetites (which may of course be quite innocent) are recognised and their satisfaction is socially organised. By this door luxury and wealth enter; and they bring in their train war. And the exigencies of war will no doubt provide a check and a discipline for the growing tribe of unnecessary appetites. Temper (*θυμός*) now takes command instead of appetite. But the warrior needs training, and the State must devise a system of education for him. Once attention is turned to education there is no stopping place short of complete knowledge. The goal is the production of the philosopher, and when he comes knowledge must supplant temper as the ruler of the State. When the philosopher rules, the city will be purged of all luxury and ostentation. The unnecessary appetites will be suppressed, the swagger of the soldier will be corrected, and the full-grown State will be ready for united action at home and abroad.

The application of all this to the individual is plain. Nothing interests or occupies the infant but the necessities of life. But alongside of the necessary appetites and out of them spring by degrees opportunities for enjoyment. Out of such enjoyment emerges the notion of the self as a thing to prize and develop. Hence a somewhat competitive self-assertiveness, which at once operates as a check upon the exploitation of the appetites. The young man will probably swagger a little; he will very likely be provocative in manner

and strive after originality in dress. It is only by degrees that these things drop away, and perhaps by the time he is thirty he will be ready to depose Temper and put Knowledge on the vacant throne. For these reasons our future philosophers will serve first as soldiers. The State will thus use the characteristics of youth where they are valuable, and provide an occupation for the rulers at a time when they are too full of physical vigour and energy to be fit or able to concentrate their thoughts on the pursuit of truth.

Thus, (4) fourthly, in this passage we have by implication an evolutionary account of the three forms as successively dominating the life of the individual in its three stages of childhood, youth, and manhood. So looked at, the forms are once more in a sense alternatives, but not primarily alternatives between which the individual chooses. Appetite of some kind is his from birth; but Temper and Philosophy are later growths, successively superimposed, as it were, upon appetite; and it is only in the second half of a man's life that the love of knowledge can be expected seriously to influence conduct.

§ 3. '*Parts*' of the Soul.—In what sense does this doctrine involve us in the assertion of 'parts' of the soul? The treatment of this question is commonly confused and prejudiced by the modern psychological classification of the elements of consciousness under the three heads of *Denken*, *Fühlen*, *Wollen* — Thought, Feeling, Desire — Cognition, Affection, Conation. The doctrine is treated as a stammering utterance of this great truth, and under the spell of the Evolutionary Method historians of philosophy treat Plato as a child who talked bad English or German instead of as a grown-up man who talked good Greek. But the modern classification, whether it is adequate or inadequate, proceeds upon an entirely different principle from the Greek. The point need not be argued in detail. It is at once evident from the fact that our psychologists are careful to inform us that their triad is in simultaneous occupation of consciousness; all three are present in *every* 'psychosis' though in varying proportions; while the Greek triad is often represented (as we have seen) as a triad of alternatives, each excluding the others, and each striving on occasion to supplant whichever of the other two is in possession. A man cannot choose whether he shall think, feel, or desire: he must do all three: but a man can and must choose whether he shall pursue truth, honour, or profit. No direct comparison, therefore, is possible between these two classifications.

The true analogue in modern thought to the Platonic

division is to be looked for in moral philosophy, in the recognition, implicit or explicit in every system of ethics, of a duplicity in the will itself as the root of the moral problem. The moral struggle is conditioned by the fact that the man has two wills; and if we say 'three' instead of 'two' we have the problem as it appeared to Plato. The fact that we still speak Platonically of the moral conflict as a conflict between 'reason' and 'desire' does not blind careful writers to the obvious fact that there can be no conflict between the parts or elements of consciousness in the modern sense. Even Aristotle, who already classified the activities of soul on a somewhat different principle from Plato's, refers to the conflict sometimes as one between *νοῦς* and *ὀρεξις*; but it follows from his analysis of *ὀρεξις* that there can only be conflict if there is *ὀρεξις* on the side of *νοῦς*. and *νοῦς* or some other form of cognition on the side of *ὀρεξις*. The modern threefold classification has nothing whatever to do with the moral conflict, and it may be taken as certain that any classification which approximates in any degree to the modern becomes inapplicable in the same degree to that conflict. It is where moral philosophers attempt to classify motives and explore their possible collisions that they are treading the same ground as the three forms of Plato.

The comparison, then, of these three forms with the modern division of elements of consciousness is to be deprecated. But if it is made I cannot see any reason why it should be supposed that the modern method is any more successful than the ancient in preserving the unity of the soul. The modern looks inside himself and finds on every occasion three elements forming a complex whole which he calls a psychosis; the ancient looked at man's conduct and observed in it three tendencies, he looked at life and saw in it three necessary functions, and since life and conduct are manifestations of soul, he was bound to attribute the triplicity to soul. The difference is typical of the difference between the Greek and the modern view of soul. We are apt to think of soul as a thing we shall see if we turn our gaze inward, while the Greeks thought of it as the sum of those functions which are observed to differentiate living from lifeless matter. Hence we moderns, being ourselves men, think that only men have souls, while the Greeks had to credit plants with them. They did not mean that plants were capable of the inward gaze, but simply that plants were alive. A candid comparison of these two ways of regarding soul can hardly fail to result in the admission that the advantage lies wholly with the Greeks. Introspection in the

literal and direct sense is probably impossible, and the kind of memory which passes under that name is extremely blurred and unreliable. Our knowledge of ourselves is not different in kind from our knowledge of other people. In degree it is superior, more detailed and continuous, but it is very much hampered by prejudice and prepossession. If we formed our estimate of ourselves, as we form our estimate of others, from our actual conduct and behaviour, we should gain enormously in candour and determination; and if we applied the same method to animals we should be spared a good deal of false psychology. The only sound method of discovering the nature of soul is by the classification of its manifestations in the life of living things, and that road Plato has followed. If the activities of life are manifold the functions of the soul are manifold, and it is nonsense to say that by the recognition of such diversity the unity of life or the unity of the soul is destroyed.

In the preceding argument I have tried to show in detail that the diversity characterising Plato's tripartite soul is a diversity of function. As much is implied in the names by which Plato usually describes his triad. He calls them, as is well known, 'forms' (εἶδη), 'kinds' (γέννη), 'characters' (ἥθη), 'modes' (τρόποι), even 'souls' (ψυχαί), and only occasionally 'parts' (μέρη, μόρια). The division is what is known as logical division, the division of a genus into species. 'Souls' means kinds of soul, and parts of soul means precisely the same thing. Similarly in the *Gorgias* ὀψοποιική is referred to as a 'part' (μόριον) instead of as a 'kind' of *κολακεία* (463B, cf. 464B, 466A). There is nothing surprising in the spacial metaphor, but it would indeed be odd if Plato thought of the soul as extended in space, operating physically with different portions of itself at different times. But there is little doubt that when Plato said forms or kinds he meant what he said. On that hypothesis, and that alone, he is faithfully expounding the implications of the Pythagorean fable from which we started. And since in English the word 'part' suggests a crudity of which Plato was incapable, and goes some way to excuse the patronising contempt with which the doctrine is often treated, we ought to accustom ourselves and our pupils to describing the doctrine in terms which do less injustice to its meaning.

§ 4. *Influence and Importance of the Doctrine.*—Not only has the doctrine of the tripartite soul been frequently misunderstood and misrepresented, but its importance and influence have been greatly underestimated. It is not too much to say that the doctrine dominates Plato's thought in the

ethical sphere, and that in a fashion which would hardly be possible if the doctrine had been novel and of Plato's own invention. When, for instance, in the first book of the *Republic*, Socrates proves the superiority of the just man to the unjust under the three heads of wisdom, strength, and happiness, consciously or unconsciously he is guided by the three forms and applying in succession the tests of attainment recognised by each. In another passage of the same book the reference is more definite. Socrates says that it is difficult to persuade the best men to rule: for a high salary will not tempt them and they are not ambitious. The love of honour and the love of money are mentioned: only the love of wisdom is omitted. But the paradox of the rule of philosophy is implied as plainly as can be—and this in Book I., which is often thought to be some years earlier than the rest of the *Republic* and to belong to the 'Socratic' period. Similarly Aristotle's *Ethics* begins with a reference to the three lives: the vulgar seek pleasure, sometimes perverted into money, the politician seeks honour, and finally there are the spectators, who live the life of contemplation. Aristotle's triple classification of motives (1104b, 30) *καλὸν-αἰσχρὸν, συμφέρον-βλαβερὸν, ἡδὺν-λυπηρὸν* is probably a by-product of the doctrine, and the use of *καλὸν-αἰσχρὸν* as the highest category may be connected with the notion of the highest activity as that of a spectator of life. Aristotle's triple classification of desire (*ὁρεξεις*) into *ἐπιθυμία, θυμός*, and *βούλησις* undoubtedly comes from the same source and was probably simply taken over from the Academy. This is suggested not only by the casual way in which the division is treated, the position of *θυμός* and its nature being nowhere adequately investigated in the Aristotelian corpus, but also by a consideration of the psychology of the *Laws*, which is a most valuable connecting link between the *Republic* and the *Ethics*. In the *Laws*, knowledge is no longer set forward as the supreme goal of life, and the notion of the human good is set in its place as the supreme director of conduct. The effort after *τὸ ἀνθρωπινὸν ἀγαθόν* is precisely what Aristotle calls *βούλησις*. Aristotle's three species of desire are in fact just the Socratic-Platonic three forms modified by the withdrawal of the paradox of the philosopher king, and by the consequent divorce of practical wisdom from philosophy.

It is not necessary here to search the records of Greek philosophy for further detailed evidence of the profound and continued influence of the doctrine; but we may remark in conclusion that all probabilities favour the truth of the tradition of its Pythagorean origin. The pure Ionic tradition

from Thales to Democritus knows nothing of the three lives, and it is probable that no Greek thinker prior to Socrates called himself a φιλόσοφος outside the Pythagorean School. If Zeno really wrote a tract πρὸς τοὺς φιλοσόφους, as tradition says (Suidas: *Vors.* 127, 15), the title, as Döring has acutely suggested, would have been understood by his contemporaries in Magna Græcia to specify the Pythagoreans as the object of attack. The single fragment of Heraclitus which contains the word φιλόσοφος may well have the same reference. Χρὴ εὖ μάλα πολλῶν ἱστορίας φιλοσόφους ἄνδρας εἶναι (*Byw.*, 49, D. 35), 'Lovers of wisdom must it seem have knowledge of many things'. But wisdom, we may remember, is one, not many (*B.*, 19); and this same Heraclitus accuses Pythagoras by name of possessing much learning but little sense (*B.*, 16, D. 40), 'Much learning does not teach understanding, or it would have taught Hesiod and Pythagoras, Xenophanes and Hecataeus'. Here again therefore φιλόσοφος may well be used derisively for 'Pythagorean'.

The doctrine of the three forms is quite compatible with everything else that we know of the Pythagorean school. We know that they preached a doctrine of purification which was a kind of heretical Orphicism, and the burden of their heresy can hardly have been anything else but that 'the purgative is philosophy' as the Socrates of the *Phædo* teaches.¹ And that doctrine as expounded by Socrates, who pretends to no originality, involves the three forms. The account of Pythagorean opinions given by Iamblichus contains the distinction of τὸ τῶν φιλοτιμιῶν γένος from τὸ τῶν ἐπιθυμιῶν (*Diels, Vors.*, 287, 41), as well as the classification of motives into pleasure (ἡδονή), profit (συμφέρον, ὠφέλιμον) and beauty (καλόν, εὐσχημον) (*Vors.*, 288, 10-17). It is true that the Pythagoreans are also credited with a fourfold division of the soul into νοῦς ἐπιστήμη δόξα αἴσθησις, but it is surely the extreme of stupidity to suppose that this division conflicts in any way with the other. It would be as sensible to say that in the *Republic* the fourfold division into εἰκασία πίστις διάνοια νοῦς is in contradiction with the triple division into ἐπιθυμία θυμὸς λογισμός. But writers who solemnly discuss under which of these three heads αἴσθησις falls are presumably capable also of finding ἐπιθυμία somewhere in the division νοῦς ἐπιστήμη δόξα αἴσθησις. They

¹ It can hardly be any one but the Pythagoreans who are referred to by Epicharmus in the line—Θανάτῳ χρὴ τὸν θανάτον, οὐκ ἀθάνατα τὸν θανάτον φρονεῖν; and the same explanation must be given of his other apparent references to Plato, if the fragments are genuine.

may be left to do their worst by themselves. Plainly a classification of the various forms of cognition cannot conflict with a classification of the needs and tendencies of human nature whose rivalry gives rise to the moral conflict and whose harmony is virtue.

The conclusion of the whole matter, then, is that we must amend our account of the origin of Greek ethics. Plato did not create out of nothing. In this paper I have avoided raising the question how much of Plato is Socrates. It is not a question to which a precise answer will ever be possible; but it is becoming increasingly certain to me at least that Prof. Burnet is nearer the truth than most of his critics. But however that question is answered, I feel sure that a very considerable part of the Socratic-Platonic doctrine is in essence Pythagorean. The ethical speculation in particular derived its impetus and its leading ideas from that source, and received in the three forms a solid psychological foundation on which to build. Of course if Orphicism is Oriental, as some say it is, that would account for a taint of the East in Socratic-Platonic ethics. But it has never been proved that Orphicism was not indigenous, and in the absence of proof it is best to assume that it was. Thus ethics has a longer and more interesting ancestry than is sometimes supposed. Its roots indeed are really as deep as those of any other branch of philosophy; for if science was born in Ionia, philosophy was born in Magna Græcia in the Pythagorean and Eleatic schools.

IV.—IDEALISM AND RELIGION IN CONTEMPORARY ITALIAN PHILOSOPHY.

BY ANGELO CRESPI.

ITALIAN is no longer so widely studied in England as some twenty or thirty years ago or more, and this is a great misfortune both for Italian and for English culture, not only because in the field of letters, for instance, treasures of contemporary Italian poetry, perhaps unequalled elsewhere, are now no longer known or studied in England as once even minor poems were; but also because in strictly philosophical thought Italy has been in these last few years particularly fertile, and there are some who think that it is there that, for the moment at least, philosophy has reached its keenest consciousness of her present task, and in the systems of Signor Benedetto Croce and of Prof. Bernardino Varisco taken into herself, in a bold constructive endeavour all the best that has been heretofore produced within or without Italy.

And yet the study of Italian philosophical thought should be particularly interesting; for the philosophic stream of any other national spirit takes its origin, sooner or later, from Italian impulse, from the impulse of the Renaissance and then of Galileo, Bruno, Telesio and Campanella. Italy's own philosophic stream in its most vital character and feature is thoroughly continuous and autochthonous even, one might say, from the days of Pythagoras and Empedocles. Modern naturalism, more especially modern historical and political science, had its origin in Machiavelli and its first philosophical treatment in Vico, one of those centres within which all German Idealism, romantic and logical, was as in germ, and from which modern philology and æsthetics took their start.

Then in the nineteenth century Italy can boast an independent, though a minor Kant in Rosmini; and in Vincenzo Gioberti she can recognise her Fichte, her Schelling and her Hegel, although here the three steps, which in Germany were exemplified in three different thinkers, appear in a more spasmodic manner and with less clear self-consciousness.

The German Hegel was introduced only later on into Italy by Bertrando Spaventa, a kind of Italian Hutchison Stirling. And Italy also had her subsequent phase of empirical and naturalistic barbarism in the last quarter of the same century ; only she gave to the world, in Roberto Ardigò, a philosopher of naturalism more aware of the real problems than Taine or Spencer had ever been, and an exponent of views, which, but considerably later, were favourably greeted, when advanced by Fouillée or by Mach.

At the present moment Italy is having her phase of idealistic sunshine through the great influence of such systematic thinkers as Benedetto Croce and Bernardino Varisco. The former, whose thought is substantially expressed in four not very big and admirably clear volumes, represents, as a whole, a remarkably original re-thinking of Hegel in the direction of an absolutely and exclusively immanent *Weltanschauung*. To him spirit is the one reality, and spirit, as best known to us, is—essentially—historical becoming ; the truth of knowing is *making* ; the truth of evolution is history, which is the Universe's self-making, and Man is, so far, the highest self-consciousness achieved by this process, while particular individuals are stages or historical phases of this becoming of the Universal Spirit ; hence the identity of history and philosophy ; " philosophy without history is empty ; history without philosophy is blind ". History is the process, of which philosophy is the *rationale*. Substitute history, so conceived, for the Bergsonian *flux*, the concrete universal for creative intuition, dialectical process for psychological becoming ; the eternal self-realisation of Spirit through spirits for spirits taken as phases of spiritual evolution swallowed up, transmuted and unaccountably preserved within some final changeless, super-relational Absolute of the English Neo-Hegelian Bradleyan type and you have the essential lines of Croce's anti-platonic, anti-ontological, exclusively historical idealism, an idealism which claims, once and for ever, to have buried every metaphysic of Being under its metaphysics of creative knowledge.

It goes without saying that, for such an idealism Religion can only be a *philosophia inferior*, a childish philosophy philosophy because rightly asserting the world's ultimately spiritual nature, childish because unaware of the true nature of Spirit, which it expresses in a figuratively mythical form, instead of a notional one. The moment Spirit is seen to be unity of subject and object, and the moment we become aware that to hold such unity as eternally and perfectly self-realised and self-realising in some Absolute Being, is to avow

that our human historical knowledge, by which such assertion is made, is not really knowledge, we are driven to an essentially historical view of Reality and to see in Man's self-consciousness the hitherto achieved and ever active and creative self-consciousness of the Absolute. Man is all we know of the Divine, and, also, all we need to know.¹

And it also goes without saying, that a philosophy of this kind, which claims to be a philosophy of freedom as against all ontologies (naturalistic as well as spiritualistic) which are presented as necessarily philosophies of oppression, meets with great favour from all those who in a country like Italy, still feeling the effects of centuries of political and especially of priestly oppression, resent even the thought or the shade of the thought of anything transcendent, of anything to which man should have to bow. No wonder that even many self-styled Modernists, little aware of what, in its best constructive sense, Modernism was meant to be, should have embraced this philosophy as the grave-digger of every ontological claim and belief, as the upholder of Man's dignity, as of a God in the making. In Latin countries it is only too easy to understand how everybody presenting Christianity and Religion as exploded though venerable superstitions, should, and for some time yet will, find eager apostles and listeners.

Prof. Varisco's thought is set in a quite different direction. Fully conscious of the present conditions of science and philosophy within and without Italy, he is also fully aware that there are, in life and in thought, some "greatest problems". It cannot be without influence on our lives whether we vitally believe in God and in the soul's permanence or whether our belief is of a good or a bad kind. Feeling may not be a safe guide in life; but feeling may have its reasons and be the vehicle of some truth. Hence Prof. Varisco starts his inquiries in the following manner: "Are Theism and Christianity played out or not? They must either be or not be true. They must, as well as their opponents, have something to say for themselves; well, let us listen to them, and before all let us take stock of the whole of our experience; that is, let us start on the philosophic venture." Prof. Varisco's work consists therefore substantially of two endeavours. There is, first, a well-sustained polemic against those who agnostically deny the possibility of such a venture

¹ See *Ciò che è vivo e ciò che è morto di Hegel*; *Filosofia dello Spirito*: Vol. I. *Estetica*; Vol. II. *Logica*; Vol. III. *Filosofia della Pratica*, di Benedetto Croce (Laterza, Bari, 1907).

and who remain confined within empiricism. And this is the easier part of his task, the part which it would be less profitable to summarise for the readers of this Review since the conclusions here reached have in England been received by almost all those who are competent to judge. But, secondly, Signor Varisco's work contains a keen criticism of the epistemological and logical assumptions of Absolute idealism, chiefly of the monistic and pantheistic type. And the result of this inquiry is that such idealism, after perhaps the keenest trial it has yet been submitted to, is found wanting, and that Theism remains still a plausible alternative and neither excluded nor possible of exclusion. The work of Prof. Varisco has already received attention in France and Germany and has been noticed in England by Dr. Bosanquet and Prof. A. E. Taylor, by the latter with deep sympathy,¹ and as the author avows some indebtedness to Edward Caird and to F. H. Bradley, this is one reason the more why the essential contentions of his philosophy should be made widely known.

Prof. Varisco's starting-point and his justification of philosophy in general as against empiricism and agnosticism does not essentially differ from that of ordinary idealism: in science we have only an abstract, consequently imperfect systematisation of reality obtained through a provisional dropping of the subjective aspect of experience; but if we wish to get a complete account of experience we have to interpret it in the light of a doctrine of what experience is; of a doctrine of the subject as knowing.

When I am myself the known reality there is no problem of how knowledge is possible. I *know* I am so and so because I *am* so and so; and it might even be said: I *am* so and so because I *know* it; my being and my knowing myself are one and the same thing: I am a unity whose existence consists in its being present to itself. The difficulty about the possibility of knowledge arises only in regard to external things or other Egos, which I do not usually connect in any essentially organic manner with my own being. And, of course, so stated the problem is insoluble. To know anything means that I am in a certain relation to it. To be able to know anything means that I can enter into that relation, and such a mere possibility is already a relation between its terms. And this implies that each is essential to the other and their relation to the reality of both. I can only know what is

¹ Bernardino Varisco: *Massimi Problemi* (1910) and *Conosci te Stesso* (1912). Milano (Società Editrice Milanese).

already in some essential connexion with myself and therefore an element of my own being; and to know this and that means to distinguish different elements within the totality of that experience, whose unity I am; and to distinguish myself from other beings means to distinguish this unity which I am from the elements of which it is (and I am) the unity. To say, therefore, that I can only know myself does not mean in the least that I am shut up within myself (in the strict, specified sense of this word), but only that I have no right to suppose that there is anything which is not implicit in myself and may not be made explicit in my consciousness. To know any object or system of objects or the whole world means that it is numerically the same whether included within my own conscious unity or any other. And this is true of sensible qualities as well as of relations (ideas, concepts, notions); they are characters of reality, numerically the same when noticed or thought about by any number of subjects (*viz.*, in their apprehension), and in reality itself. Of course the activity of the subject does not exhaust itself in actually including scattered amounts and aspects of reality. Through memory, habit, etc., representing past experience and working under the control of the reality actually included, it helps itself towards a representation of the included reality less fragmentary than the amount of it actually experienced, thus achieving the knowledge of a world of concrete realities, whose relations and characters are numerically the same with our notions of them, and whose total order, when abstractly thought out, is reproduced in the system of our judgments: our reason and the world reason are numerically identical. Either the truth the subject knows is not truth (and then the subject does not *know*), or it is objective, immanent in the known reality. On any other assumption Solipsism is unavoidable.

We are thus irresistibly driven, each of us, to build up for himself, through experience of correlative activities and resistances, a conception of the world as consisting of numberless subjects, each capable of including all others within his own unity and of being in its own turn included within their own unities, each essential to all others, so that no part of this world can be actually unknowable to any other; nay, no part of it is not actually known by some other. The fact of knowledge excludes from the world the fact of unknowableness and any possibility of things in themselves existing apart from and independent of and indifferent to any thought. To say that the realities I know are not

merely real as known by myself can only mean that they can and must also be objects to somebody else.

And with things in themselves the subjectivity of space and time too becomes meaningless, in a world where all that is appears to be, space and time must also be forms however subordinate, of the appearing reality; to call them illusions or mere appearances is not to explain them, but only to explain them away. Now, if all possible relations among phenomena were of the kind typified by the relation of ground to consequence, *viz.*, logical relations, of course there could not be any real time, any real happenings, for such relations are timeless. But causal relations between events, though necessary, are not reducible to logical nexuses and are not deducible from them. Their possibility can therefore only be due to the mutual interference of the subjects' spontaneous activities, which, just as our wills, are perennial sources of absolutely new beginnings. Every event is therefore, in so far as due to the subjects, not caused by any previous event; but in so far as it falls within the unity of the system, *viz.*, within logical necessity, every event is necessarily connected with others, and thus nature is assured of a reality of her own, as the sphere of causal relations, though this reality may be dependent upon and fall within the sphere of logical relations.

But if so, we have to do with a world to which unity and multiplicity, necessity and contingency, are equally essential; and we must ask ourselves what kind of unity they reveal in it. Obviously they could not hold together unless they had something in common and were all determinations of some reality including them all and included in and by each of them. But they have just in common the fact that they all *are*; *i.e.*, the fact *Being*; a fact which is just our common notion of Indeterminate Being. Unless we are to fall back into solipsism we must hold that, just as all sensible qualities and relations among them in the universe are numerically the same when included within only mine and when included within other minds or all particular minds, so too Being, as our most general notion of which all other notions are determinations, is numerically the same identical Being, when included within only mine and when included within all particular minds.

Of course Indeterminate Being only exists in its determinations because my notion of it is obtained through my abstracting it from them; it exists therefore, *qua* Indeterminate only as the abstract thought of some mind; it could not exist without such a mind and it would fade together with

it. But, *vice versa*, the abstraction is possible; which means that, though determinations are essential to it, it, in turn, is essential to them. Neither can be apart from the other: unity and multiplicity exist each in and through and so far as the other. Being is therefore neither a collection nor aggregate, nor a mere genus, nor any sheer *ens rationis*; while all other notions are, to a great extent, our construction, this is not. I could not even be capable of any thought, did I not, at least implicitly, think Being, *i.e.* did I not make explicit to myself Indeterminate Being as implicit in me. Our notion of Being as such is just Being as such getting self-conscious in us as the universal substratum of our particularities. Being is thus at one and the same time what prevents our knowledge from becoming disintegrated and what prevents the world from becoming a mere accumulation: Being is necessary.

And Indeterminate Being has no opposite. When we say we find nothing in a room, we mean we find nothing of what we looked for; we know there are in the room space, air, dust, etc. *Nothing* therefore is not the negation of Being as such, but only of this or that among its determinations. But, if so, if Being, as we have seen, is necessary; and if, as we have also seen, Being, *qua* Indeterminate, can only be thought through abstracting it from its determinations, then the ultimate law we are seeking is the intrinsic necessity for Being of ever being determinate. Being must ever have some logically essential determinations. All concrete realities (subjects, monads, events, etc.) are determinations of Being. Are they also its only and necessary determinations? If we answer the question affirmatively we stand for pantheism; if we answer it negatively we stand for theism.

Let us first suppose that the concrete realities of the phenomenal world are the only necessary determinations of Being. If so, time and happenings will also be among such determinations and the changing of the universe must be rooted in an intrinsic necessity of Being, in the necessity of its ever being possessed of all its logically essential determinations; and this necessarily implies the existence of particular subjects whose thought this Indeterminate Being should be. Without the mutually interfering spontaneities of such subjects there would be no happenings, not even the subject's thinking, nor the possibility of Being attaining thus mediately to self-consciousness: Being would not be all it must be: Being would not be. The Universe as a whole, in this

hypothesis, is always the full self-realisation of Being. This, its End, if we may call End a merely logical intrinsic necessity, is ever achieved, nor can it ever fail to be so. Change is the form of the fullness of Being; the world changes in order ever to remain essentially the same; it would preserve its essential features through ever-changing their bearers and spectators. At any moment in its history (if such change be worthy of this name), in some part of the world there cannot fail to be striving monads, experiencing subjects, rational beings, historic societies and world-civilisations emerging from and triumphing over the network of merely causal relations through which and by means of some philosopher in them Reality attains to self-consciousness. Just as perhaps, or rather not less certainly, in some other part of the cosmos historic societies, living beings, etc., are being overcome by the unsubduable and rising tide of some ocean of purely causal relations too strong for them.

We should thus have a universe in which the absence of teleology in the totality of it would be not only perfectly compatible but even unfailingly linked up with the existence of partial and transient telological systems within scattered ranges of it; a universe in which no preservation of values would be possible either for individuals or for societies except within a very limited range of space and within very limited, restricted and changeable cycles of time. Nay, values, strictly considered, would only be instrumental forms of the logical necessity for Being of mediately attaining to self-consciousness. All ethical endeavour, all heroic striving and self-devotion, all historic conation would resolve themselves into an eternal tautology in order that what cannot help being should ever fully be.

From a strictly theoretical standpoint no God would thus be required to give the world its intelligible unity; and absolute idealism may fairly claim the dignity of being called the higher and truer naturalism. Idealism too can make its own Laplace's well-known boast: "I do not need this hypothesis". Being in itself is the only value, and the values of all determinate particular realities are measured by the amount of Being they include, or, if it be preferred, by their degree of reality and by the quantitative and qualitative contribution they make—and they are required to make—towards Reality's perfection. In such sense it can even be said not only that no value is lost and all values are preserved, but also that no true value is ever really born; for it is, in its essence, eternal. If such be the case the conservation of value would be guaranteed by the intrinsically eternal nature

of universal Being. The whole alone is truth and law and the measure of our wholeness is at the same time the measure of our eternity. Not so much we, as the *quantum* and *quale* of our wholeness crosses the bar.

But it is more than doubtful whether the faith in and the longing for the conservation of values, which constitutes the soul of Religion, can be so easily interpreted as a mere emotional and instrumental form of the logical necessity of Being ever preserving all its possible and essential determinations. And it is more than doubtful whether it is still legitimate to speak of values on such a view; and though it has Spinoza's self-denying saying, that the true lover of God does not require that God should return his love back to him, an excellent rebuke to all religions and theologies springing from the selfish and individualistic standpoints of the world of claims, to use Dr. Bosanquet's incisive language, it is doubtful whether the typically religious experience does not really contain anything more and does not satisfy some utterly unselfish longing of the soul and reveal some higher form of preservation of values than is allowed by the analysis of the logical necessities of experience. Experience, it is claimed by many, reveals values, which refuse to be resolved into mere instruments of timeless necessities, and which, to be and to remain values, require, as essential condition, some permanence of personality. And if Theism alone is compatible with such values and their preservation, then we must hold that the phenomenal determinations of Being are neither its only nor its essential determinations.

Now, we have seen that Being as a common character of all concrete realities and Being as our common notion of it, are one and the same numerically identical reality and, *qua* Indeterminate, it exists only as the thought of some subject. To say therefore that its essential determinations are not those of the phenomenal world, is the same as to say that it is not necessary to Being, in order to be such thought, that it should be the thought of any particular subject or world of subjects; and, consequently, it is the same as to say that it will have to think itself by itself and be a consciousness independent of and distinct from all possible single consciousnesses. And, as these, in the second alternative we are now considering, the theistic, do not spring from Being by intrinsic logical necessity, their existence can only be due to an intrinsic creative spontaneity of Being itself, which thus would, in a true sense, be *creatively active* and not merely moved according to some logical automatism, as in the previously stated pantheistic hypothesis, where the

only spontaneity is that of single subjects and springs from ultimate logical necessity.

Being, thus understood as self-conscious and as creative of what, without it, could not be and yet does not necessarily spring from it, would be God. God might thus not have created Man, but in creating him has made Himself one of his essential constituents, so that man cannot know himself truly without knowing God as not external to himself and yet as distinct from himself.

Every particular subject would still have Being as one of its essential constituents, but it would no longer be essential to Being to be a constituent of particular beings. God would be a subject including within himself and therefore transcending (as after all each of them transcends all others and is by all of them in its own turn transcended) all finite subjects and their experiencing processes. Only on the assumption of the phenomenal world not being a necessary determination of Absolute Being, but a purposive creation of His spontaneity, all things may be ordered in such a manner that values may be intrinsic values and not merely instrumental forms of logical necessities, and as intrinsic values should be preserved through some process of conservation of persons.

The problem therefore of the truth of theism rather than of pantheism resolves itself into the problem of the ultimate essence of value and of the significance of feeling in experience. Shall we deem in the right those who take feeling as instrumental to dialectical necessities and who, accordingly, consider logical necessity and wholeness as the innermost essence of Spirit; or shall we deem those in the right for whom logical necessity is only the form, the garment, so to say, of an inner spontaneity, so that feeling would be the soul of reason and love the central truth of Spirit, of whose universality the universality of reason would only be the expression and the radiance? Such is the highest problem to which all this argument has been leading all the while, and which the author does not so much pretend to solve as to state with a greater precision than heretofore.

But he does not leave us altogether in the dark in regard to the alternative which appears to him invested with a higher degree of truth. And we can derive much light from his discussion of the alternative theories as to the world and its relations with man, and as to our ways of conceiving value.

The alternative theories are at bottom only two: theo-

pantheism, the doctrine of the Universe as Absolute single knower in all particular subjects and impersonal pantheism as above stated.

The former seems to many to be the necessary consequence of the Cartesian *Ego sum*, our single basal certainty from which everything else—if there be anything else—is to be deduced. As it is impossible that thought should have outside itself the grounds of its own necessity, there can be neither unknown nor known, neither knowable nor unknowable objects outside myself; not indeed outside my wakeful or sleeping self or any phase and form of my empirical self, but outside the thinking Ego, which, as such, is wide as the whole and is the whole. Hence it seems as if there could be only one thinking subject in all, having everything else within himself as its content: God. And we know that historically this result has been reached through a natural development of the Aristotelian doctrine of the *Intellectus agens*: the *intellectus agens* cannot help being numerically one in all men and be at one and the same time God and their true self or soul. Moreover this standpoint seems to clear away some otherwise insurmountable difficulties, chief among them one arising from the difference between knowledge and reality. On the one hand there is such a difference because while my knowledge of anything is, as such an act, purely mine, the known reality is known to others too. On the other hand, if knowledge and the known realities are distinct matters, knowledge becomes unintelligible, for in order that I may know anything it is necessary that the thing's reality and my knowing it should make one; which leads to the paradox that I can know only myself. But the difficulty and the paradox vanish at once if the true knower, in all subjects, is God and the reality of anything consists in God's intuition of it; if, that is to say, there is a single numerically identical thinking activity in each and all of us functioning in each according to the particulars it finds itself connected with, and thus having all empirical selves as its vehicles or rather raw materials and contents.

To this doctrine Prof. Varisco objects, before everything else, that it fails to account for time and happenings, even if taken as mere appearances, and for error. If the true knower within us is God, whose knowledge and reality make one, it is impossible to see how in a system of terms timelessly and necessarily connected any distinction between appearances and reality, between errors and truths, or degrees of reality and truth can find a place. And we have seen how Prof. Varisco fills this gap by his theory of the mutually interfering

creative activities of monads connected into an organic system, so as to make possible, subordinately to and within the sphere of logical necessity, a kingdom of merely causal relations between contingent events. Secondly, he objects that the doctrine in discussion is logically driven to deny or undervalue the distinctness of personal consciousnesses. But against this stands the fact that feelings and values are experienced and enjoyed only by their subjects, while contents of experience alone (colour, sounds, truths, etc.) can be common to many subjects; nay, between persons there are qualitative differences—as between a coward and a hero—which make them even more than numerically different. In the life of the self-conscious Ego value is constituted by the full harmony between activity and feeling, on the one hand (the elements, which are only my own) and cognition on the other (of other elements of the same value in other Egos), and the law of Personality is its respect of itself in all its bearers; and this does not mean that the value of personality is numerically one in all; were it so, the necessity of an effort on my part in order to respect in its fullness the value of others, which we do not enjoy but are merely aware of, would be quite incomprehensible; the truth is simply that all persons have an *equal* but not the *same* value. It may be that persons are elements in higher organic systems and that, even as distinct, they are more than what they seem and the phenomena of social life, of suggestion, etc., may tell against conceiving of them as impervious and isolated pillars, so to say; but we must be aware of drawing from the unreality of isolation between selves arguments for the unreality of numerically different and distinct personalities, elements in an organic system, and capable of explicating and realising in themselves as persons, to an indefinitely progressive extent and depth, the rationality immanent in the whole system. Not only the full acknowledgment of distinct consciousnesses leads to no imperviousness of selves, but it is even necessary to a true communion among spirits. Besides all ethical distinctions, all history would have no value for this single Subject raised beyond good and evil; we should be only means to a phenomenal revelation on his part of which we fail to see any necessity; and, besides, this Subject would give systematic unity to the phenomenal world only by fracturing its own unity into this world's multiplicity and thus leaving its unity quite unexplained.

We are thus left with only two final alternatives; that of impersonal pantheism (*i.e.*, the doctrine of the world as a system of persons), and Theism. And we have seen that the

option for Theism requires as its ground a notion of value which must be substantially different from that leading to Pantheism, for, most certainly, Prof. Varisco and, say, Dr. Bosanquet, must mean by that same word two very different things.

According to both alternatives personality is the highest value; but some say: "Personality is the highest value because in it the whole reveals more of its wholeness and through it lower degrees of reality reach their *maximum* coherence and significance; because in it, more than anywhere else, there is a frank acceptance of all necessary laws, those included which cowards fear, and a steady transmutation of them into elements of universal bearing; because, in a word, in it and through it, experience achieves its utmost richness of content and offers it to the Whole; its law does not imply or promise happiness, permanent or not; but if we are not satisfied with our worth as persons and require happiness, too, then we avow that personal worth is still not ours".

While others reply: "Certainly we long for happiness but the happiness we long for is a happiness based on value and constituted by harmonious co-operation among all the elements of personality; without such happiness, value itself would not *be*, for value is just this harmony, which, if not permanent, simply *is not*; and only through mere lack of imagination can we treat it as real. Even opponents admit that values exist, that personality is the highest value; but is not this admission meaningless if these values are merely forms of eternal necessities? Otherwise, if they are not merely such instruments of timeless realities, both values and personality must be permanent; how could reality without intrinsic contradiction, create personalities with inner yearnings towards absoluteness? Value and happiness may often contrast with one another; but the contrast itself must be but a means to an inclusive harmony of perpetual stability. It is quite true that even without permanence the worth of personality is not altogether lost and something remains normally superior to mere pains and pleasures subduable by normal men; but this something would differ from them only in degree; it would be higher because stabler, but no longer absolutely higher because no longer absolutely stable."

We have thus two concepts of personal worth: the one implying, the other not implying (though not excluding) permanence; the one asserting, the other not asserting, happiness as an essential element of worth grounded on it. The opposition is radical; which is the ethically truer? To whom shall we go for the highest wisdom?

It is clear that, whether we stand for permanence or non-permanence of values, for happiness as essential or inessential to value, we yield, in so doing, to a desire which—whatever may be its ultimate root and evidential worth—is, in the first instance, a product of our psychical constitution; and that we pursue a dream of ours just whilst, in order to realise in our lives the universal law, we ought—it would seem—to renounce any and every private desire or dream. In both cases we exaggerate what is only an element of worth. Everybody, within human experience, needs to be both good and strong; only good men are really strong; only strong men can be really good. Everybody is required never to lose sight of himself and to be sufficient to himself, on the one hand; and yet, on the other hand, to help others and to rely on the help of others. The two movements thus imply each other. But man, even within his own self, indeed the whole of humanity, even in history and society, have to do not merely with each other and with human wisdom; they have to do with the *entire* world, *i.e.*, with a world of not merely logical but also of causal relations; can they then or cannot they rely, *when thus confronting this world and these relations*, upon the goodness of the Whole, upon some help or solidarity not all unlike the help and solidarity of the best among their fellow-creatures? If men have no good reason thus to rely upon the goodness of the whole, they must not attempt to do so; for if they did, they would be pursuing a dream of morbid sentimentality. For, under these conditions, even the deepest goodness would only have a value ultimately subordinate to strength; the whole substance of their worth would be in their self-mastery and mastery of Nature. But if men have good reason to rely on the Whole as having regard to their worth, on the permanence of this worth in the face of the worst, then, indeed, they must do so; then goodness would be the highest law of the world at large as well as of our life, and strength would be only instrumental to goodness; and then, too, to believe that the substance of our worth consists in having so shaped our natures as to enable them to face unflinchingly human perversity and cosmic destiny, without any yearning towards or hope of higher and eternal bliss, is to allow ourselves to be swayed by wild and presumptuous dreams. . . . The permanence of values, in any sense that does not explain them away, must either be affirmed or denied; here where no middle path is allowed, virtue cannot be in the middle; but it can only lie in truth. And truth is grasped, here more than anywhere else, only by and through virtue by the best,

and God and personal immortality stand or fall with their Yea or their Nay. "The pure in heart shall see God," is thus at once, perhaps, the last word of philosophy as well as the first and the last of the highest Religion.

Such is, up to the present, the philosophical structure slowly and cautiously built up and carefully elaborated in its details by Prof. Varisco, whose choice, on the highest issue, is decidedly on the affirmative side, though it be given only as a personal conviction slowly and painfully won; a structure which because of the solidly critical foundations laid to sustain it, of its being deeply rooted in the whole stream of philosophical tradition, from Leibniz to Hegel and Rosmini, and in the main lines of contemporary culture wisely assimilated and selectively digested, we dare proclaim to be, together with Croce's *Philosophy of Spirit* though in keen contrast with it, one among the best and most comprehensive systematic achievements of these first twelve years of the new century's speculative activity.

As the purpose of this paper is merely that of introducing this philosophy, in its essential articulation, to the British public, no attempt shall here and now be made towards a discussion of the points, which, even to the writer of this paper, seem lending themselves to criticism, though—he deems—not to one of a destructive kind. It will be enough to point out that against its chief contentions—its monadism, the relative reality of distinct selves, the significance of feeling—Dr. Bosanquet levelled some of his powerful artillery in his two recent volumes of Gifford lectures; and that, however decisive his criticisms may be as against Bergson and kindred irrationalists, they do not seem to damage at all any essential point of Varisco's system: for Dr. Bosanquet leaves quite untouched, in his *Weltanschauung*, those features of Mr. Bradley's philosophy (*viz.* the doctrine of time and space), the criticism of which led Varisco to develop Bradley's idealistic monism into a spiritual monadism, where distinctness of selves, as already hinted, far from leading to any imperviousness, is contributory to communion: *distincte unum*. The single serious methodological criticism by Dr. Bosanquet which seems to the writer valid, so far, even as against Varisco, is that grounded on taking experience too often at its ordinary level and after the psychologist's manner and almost never at its highest level and ranges. But even so, it seems hardly true that the deepest experiences of love tell against the distinctness and permanence of personality and that all we long for when we yearn towards Eternity is

the preservation in the whole, somehow, of what most we care for, and with which our true self has identified itself. The deepest experiences of love seem to us, on the contrary, to require a oneness, in which the lovers do not feel themselves annulled each in the other, but rather feel their single realities enhanced to their utmost each through the other, as notes of the same chord: the unity requires the duality. Moreover, could we say that the lover's feeling of self-identification with the beloved one and his "forever" mean merely that he is satisfied in its beloved being preserved in the whole as somebody else's experience? It is remarkable how opponents of the doctrine of immortality, understood as an experience of the Eternal the duration and progressive depth of which should be independent of our present bodily connexion, never try to argue that such an immortality is intrinsically undesirable or selfish; yet if the longing for it springs essentially from self-dedication to the object beloved or adored, if it be a longing for such a life *in* and *with* it, as would eternally require the self-dedication otherwise confined to a mere instant, it is difficult to see why this longing should be held a less adequate form of faith in the preservation of values than the merely logical certainty that the amount of being which constitutes myself, in a sense, was never born and therefore can never cease to be. Nay it is difficult not to see that it is a higher and more comprehensive form, for, while in the mere pantheistic hypothesis, Eternity is for each of us, in the degree he shares in it, a necessary function of the whole, in the other alternative it is a vocation. We ask that the eternity of an instant should fill for us more and more all time. . . . It is difficult to see what the self-centred spiritual habits of the world of claims ever had to do with the deepest religious attitude, which is not merely that of reliance on absolute perfection, but implies also—as we may see in religious geniuses and mystics—grateful trust and adoration.

There is a lovely poem by Paul de la Garde, in which a soul, just freed from bodily bonds, is depicted as at last listening to the final harmonies of the melodies that were wont to reach her on earth only in a dim way, and is bidden to serve henceforth in unfading glory and unimpeded victory that Whole she already served in earthly days 'mid defeats and failures. The soul assents but dreads lest this should be all and the end of all:—

Nicht darum, o mein Gott, bin ich hierher gekommen :
nicht darum dient' ich dir in jenen andern Landen.
Du weisst ja freilich was zu meinem Frommen,

doch mache meine Hoffnung nicht zu Schanden.
Mein Herze brenut, dich endlich anzubeten
in Geist und Wahrheit, frei von allen Bauden

.

Sei Sonne du, ich will dein Leuchten sein,
und, von dir ungeschieden in die Weiten schweben.

Ich Ringes Gold, sei du mein Edelstein,
in mich für alle Ewigkeit gebunden.
Dein Strahlenglanz, er gilt allein,
ich bin nur Träger, um deinem Blick gewunden.¹

Thus Transcendence and life *within* and *with* the Eternal appear alone to minister to the soul's deepest thirst.

Many reserves may certainly be made on whether Prof. Varisco has succeeded in securing real distinctness to his monads and in avoiding their being a mere content for a single universal thinking function; and, in regard to his system as well as in regard to kindred attempts we fail perhaps to feel the strength some seem to find in the idea of the world as an impersonal and spiritual systematic unity; even in regard to the merely sensible world it seems that, if the world is a social organism of finite subjects, Prof. Stout is right in holding that at least the points of confluence of the presentational continuum of one monad with the presentational continuum of another monad would necessarily fall outside the experience of finite spirits and that continuity in such presentational material could only be assured through its being the object of an all-inclusive intuition. But with all that Varisco's philosophy strikes one as being, on the whole, like that of Prof. Ward; a very significant development in the right direction, if it be right to love system and, at the same time, to preserve instead of abolishing distinctions.

It is no easy reading; it does not appeal to the æsthetic sense and to literary enjoyment as Bergson's; nor does it subdue with clear classifications and distinctions as Croce's, nor wins us over by anything like Croce's not rarely deceptive clearness. And yet, even through the severely impersonal, mathematical coldness and bareness of the style in which it

¹ I owe my acquaintance with this poem to the kindness of Baron F. von Hügel.

has been couched, it awakens the soul to deep apprehensions, to depth of life which thirst for waters vainly or not easily found elsewhere, but which here, if not actually supplied, still give to the watching ear a sufficient hint of the nearness of their presence by means of some haunting murmur of their own.

V.—DISCUSSION.

DR. SCHILLER ON WILLIAM JAMES AND ON REALISM.

THE most important question raised by Dr. Schiller in our discussion of his review of my *Present Philosophical Tendencies*¹ is the interpretation of the philosophy of William James, but I am going to improve this opportunity of replying briefly to his criticism of realism and of my treatment of pragmatism.

I.

Dr. Schiller objects in the first place to my belief that the issue between realism and idealism is "important". It should first be proved, he suggests, "that either thesis is *worth proving*".² I might retort that before discussing this question of importance we should first prove that *it* is important. But I should fear that this sort of pragmatic retreat might remove us quite hopelessly from the previous question. I propose therefore that we allow the question of importance to take care of itself; and that meanwhile we endeavour to ascertain certain questions of fact or probability concerning the relations of a mind and the object with which it is cognitively engaged. If Dr. Schiller will agree with my conclusions, I am willing to risk their importance. If he dissents I should be glad to know just why, point for point, chapter and verse. If he regards my arguments as too unimportant to examine I shall feel diminished but not refuted.

I arrived at a view which I call realism by discovering, as I thought, that the prevailing philosophy, known as idealism, was incorrectly maintaining as its central thesis the necessity and universality for things of their relation to an apprehending, experiencing, or cognising mind. I desire to argue with Dr. Schiller or any philosopher who will do me the honour, *the merits of this question*. The prominence in my writings of discussions of "the ego-centric predicament," is due to the fact that a certain attempt to argue from it seems to me to be the most common error committed by idealists and "correlationists" like Dr. Schiller. I am sorry that the phrase offends Dr. Schiller's taste for monosyllables. I adopted it because it was as descriptive a phrase as I could find.

¹ Cf. Nos. 86, 88, 91.

² MIND, No. 91, p. 387.

Dr. Schiller now furnishes me with several new examples of the error in question. "Why should not the methodological (*i.e.* pragmatic) reality be the only reality that exists? It is the only reality we can know we have, or can use in any science."¹ "All the 'realities' we talk and dispute about seem manifestly to emerge from processes of cognition and to be established in their status by being discriminated from the unrealities and illusions with which they were at first associated and confused."² Or, better still, consider the following passage: "Now as Professor Perry admits (as I understand him) that *our* reals are *known* reals, why should he continue to conceive their inevitable relation to a knower as a disparagement and a taint". I admit that our reals are known reals, because I suppose that we mean by 'our reals' simply known reals. The question is whether our reals, or known reals, require to be such in order to be reals, and this Dr. Schiller appears to think follows from the mere synonymy of the adjectives "our" and "known".

These are attempts both to exploit a redundancy, and to reach conclusions about reality from the fact that we are hampered in our observation of it. They commit the error of construing some constant characteristic supplied by the act of study itself, as a necessary feature of the thing studied. It would be as reasonable for me to conclude that a language must be intelligible to me in order to be a language at all, or that a star of the eighth magnitude must be seen through a telescope, or that chromosomes must be stained in order to exist. It is an elementary maxim of knowledge that all such conditions of observation must be eliminated or discounted to avoid confusion with the nature of the thing observed. The simplest case of such a condition of observation is the *act* of observation itself. And in so far as the relation to mind is thus merely a condition of observation, it must be discounted. This leaves open the question as to whether there is or is not a logical or causal connexion between the thing observed and the observing process. The Martian canals *may* be in the telescope, or the staining may create the cell body. But such a fact must be established on other grounds than that of their mere association in the operation of observation. Things generally *may* be created or conditioned by the human conscious approach to them. But if so this cannot be argued from the fact that such condition is supplied every time one tries to test the question. In so far as *that* consideration is concerned the association is accidental. To establish anything more it would be necessary to show that the relation in question is causal or logical. One would have to produce evidence that things in general are caused by the agency or operation called mind, or that they somehow imply it *a priori*. So far as I know, no evidence of this sort has been offered except for a limited class

¹ MIND, No. 91, p. 390.² *Ibid.*, p. 391.

of things such as illusions or secondary qualities. If such evidence were conclusive it would of course at most establish a dualism in which the thesis of universal dependence on mind was definitely abandoned.

In asserting that the ego-centric predicament was "one of the most important original discoveries that philosophy had made" I had meant to be mildly ironical at the expense of philosophy. I had not expected an author of *Mind!* to take me quite so seriously. But let me hasten to explain that I do not think that *original discoveries* are common in philosophy; and that in this case the discovery is in fact one that serves no purpose except in so far as it is important for critical purposes to detect a source of confusion. According to Dr. Schiller "*it seems to follow*" from the non-evidential character of the ego-centric predicament, "that no evidence for a strictly transcendent reality can be obtained, and that such realisms as refuse to live without one are doomed to irrationality".¹ According to my opinion, expressly stated by me and wholly ignored by Dr. Schiller, *nothing* follows, except that we must look for evidence elsewhere. That evidence I find by a study of the actual relation between things and the knowing or experiencing of them in order to see whether or not the relation be one of causal or logical necessity. I conclude that the relation is neither, but is on the contrary such as to leave the thing known or experienced "independent" of that circumstance. I had hoped to earn Dr. Schiller's approval by a painstaking effort to explain just what I meant by "independence".² For he had repeatedly complained that the term had been left undefined. But it now appears that he *doesn't* want it defined. It is "one of those terms which are most useful when their meaning can be made to vary as required"!³ At the same time he objects to my definition of independence, on the ground that I have not proved that it may not be an "unrecognised" form of dependence! It is putting it very mildly to say that such objections are unprofitable. Dr. Schiller neither contributes to the clarification of the meaning of the term dependence, nor does he urge any objections to the arguments which I have formulated with the aid of my own definition.

For the new realism the conception of independence is of course crucial, because this doctrine aims to show that the actual relation of things to the awareness of them is not a conditioning or creating relation. I am glad to see that Dr. Schiller has at least temporarily left off saying that realism wishes to assert "unknowable realities". But he now falls foul of the term "transcendent," and allows his fancy to speculate concerning the relation between the "'immanent' real" and its "'transcendent' double".⁴ Nothing of course could be more irrelevant to a view which repeatedly and

¹ MIND, No. 91, p. 388. (Italics mine).

³ MIND, No. 91, p. 390.

² *The New Realism*, II.

⁴ *Ibid.* p. 391.

explicitly asserts its cardinal principle is "the independence of the immanent".¹ If Dr. Schiller means by "transcendent" that which is not or cannot be immediately before the mind, then he should not use the term at all in formulating the doctrine of the American neo-realists. I at least have meant by the transcendent that which is independent of the relation to cognising or experiencing mind, whether it does in fact sustain that relation or not. If the term offends I cheerfully withdraw it; the doctrine is clear in any case.

Dr. Schiller asks me to argue in favour of my conviction "that knowing is inherently 'subjectivistic' and that to view things 'knowledge-wise' forever debars one from recognising 'reality' in any sense".² I do not recognise this "conviction" as one that I ever for a moment entertained. There is I should suppose a rather obvious difference between *knowing* and *viewing things knowledge-wise*. The former is not subjectivistic, because subjectivism is an opinion *about* knowing. To view things knowledge-wise, on the other hand, inclines the mind to the view that the cognitive angle or relationship is essential to the things. A similar danger would lie in the habit of viewing things Schiller-wise or Perry-wise. A view that regards the relation to a subject as essential to the thing so related, or as a *conditio sine qua non* of existence, is "subjectivistic". Dr. Schiller's "correlation" theory seems to me to be such a view. Is the correlation a necessity, or an accident? Before one can proceed to interpret reality in terms of this relation one must know. I have set forth reasons for thinking it to be an accident; and I should like Dr. Schiller's reasons for thinking it a necessity. I cannot accept Dr. Schiller's "pragmatic realism" or "experimental idealism," or "ethical idealism," simply because it seems to me to be based on a false view of this relation.

The special difficulties connected with illusions, hallucinations and errors do not seem to me to be decisive (1) because these difficulties would at most lead one to a differential or dualistic view, in which one would recognise certain peculiar *exceptions* to the rule that what is known is independent of that fact; (2) because it seems to me that these difficulties can be and have been met, consistently with general realistic premises, by various contemporary realists, such as Holt, Russell, Montague, Nunn and Meinong; (3) because the really empirical and hopeful work in this field seems to me to be carried on by writers of this general type and to be conditioned by general realistic presuppositions.

II.

Dr. Schiller's objections to my interpretation of pragmatism converge upon my distinction between the theoretic interest and

¹ *Present Philosophical Tendencies*, p. 363.

² *MIND*, No. 91, p. 391.

other interests. I have insisted that truth is determined by the former and not by the latter. I have not denied that "psychological interest forms the common measure of 'theory' and 'practice,'" ¹ but I have denied that this resultant value judged by the totality of interests was the same as that special value which we name "truth". I should say the same of beauty, or rarity, or price, or health, or popularity, or success in polemics, or any other special value. I do not deny that these values compete, but insist that their survival value, determined competitively, is a different thing from the several specific values themselves. It is possible that a beautiful object should be eclipsed and forgotten in the pressure of military or economic necessity. It would not then have become less beautiful; but one would be compelled to deplore the decline in the general human emphasis on beauty. Similarly a belief might become so dull or so painful as to be put aside for more sprightly or cheerful beliefs, without in the least derogating from the superiority of the first belief in respect of its theoretic function, such as that of satisfying curiosity or enabling one to anticipate sensible experience. In that case one would be compelled to deplore the fact that men had come to care more for their amusement than for reality. Or philosophers might care more for victory in polemics than for, let us say, ascertaining the nature of consciousness. The two interests undoubtedly compete, and it may often happen that the first proves stronger than the second. But in that case unfortunately it is the value that does not survive that is truth.

III.

The question of the interpretation of James is too important and too complex to be disposed of in a controversial note of this sort. But it is time at least to open the attack upon the inadequate and slovenly versions of James that Dr. Schiller and his followers have recently put forth.

Dr. Schiller does not hesitate to charge me with reading my own realism "into, and out of, James's works". But I have at least read James's works, and have made some effort to relate my conclusions to the available evidence. Dr. Schiller seems to rely on the merits of apostolic succession. So far as I know, none of the English admirers of James has made any serious attempt to expound his philosophy in the light of *all* his writings, and with anything approaching justice to his marvellous versatility and many-sidedness.² There seems to be a tendency to believe that the philosophy of James amounts to no more than the blurring of all distinctions by a hearty daub of Bergsonian intuition.

¹ MIND, No. 91, p. 393.

² I am especially struck with the inadequacy of Captain Knox's book called *The Philosophy of William James* (cf. below).

Let us consider the single question of "radical empiricism," since here at least there are certain glaring errors of fact that require instant correction. The first of the essays which James himself grouped under this title is the essay named "Does Consciousness Exist?" In order to settle the question of the relation between James and his "followers," Dr. Schiller says that "it may ultimately become necessary to go critically into the meaning of this one paper and of Professor Perry's interpretation of it".¹ If Dr. Schiller had made up his mind to go into this matter before rather than after he wrote upon it, he would have avoided errors that are scarcely excusable even in a follower.

In the first place "this one paper" does not, as he implies, stand by itself. Of the eleven other essays reprinted in the volume entitled *Essays in Radical Empiricism*, ten refer explicitly to "Does Consciousness Exist?" and in such a manner as to make it clear that this is the first and fundamental essay in a series. Let me cite a few of these references. "In an article in this *Journal* entitled 'Does Consciousness Exist?' I have tried to show that when we call an experience 'conscious,' that does not mean that it is suffused throughout with a peculiar modality of being ('psychic' being) . . . but rather that it stands in certain determinate relations to other portions of experience extraneous to itself."² In "The Place of Affectional Facts in a World of Pure Experience" we read: "In opposition to this dualistic philosophy, I tried in a recent article in this *Journal*, to show that thoughts and things are absolutely homogeneous as to their material, and that their opposition is only one of relation and of function. . . . For the right understanding of what follows, I shall have to presuppose that the reader will have read that earlier article;" and the author adds in a footnote: "It will be better still if he shall have also read the article entitled 'A World of Pure Experience,' which follows that one and develops his ideas still farther".³ In "La Notion de Conscience" James writes "Cette communication est le résumé, forcément très condensé, de vues que l'auteur a exposées au cours de ces derniers mois, en une série d'articles publiés dans le *Journal of Philosophy, Psychology and Scientific Methods*, 1904 et 1905".⁴ These are from many cross-references, too numerous to quote.⁵ They establish beyond doubt the fact that it may "ultimately become necessary" for Dr.

¹ *MIND*, No. 91, p. 394.

² Quoted from "A World of Pure Experience," *Jour. of Phil. Psych. and Sc. Methods*, Vol. II. (1905), p. 176. *Essays in Radical Empiricism*, p. 123.

³ *Journal of Phil.*, Vol. II. (1905), p. 281; *Essays in Radical Empiricism*, p. 137.

⁴ *Essays in Radical Empiricism*, p. 206.

⁵ Cf. also, *ibid.*, pp. 53-54, 105, 124, 138-139, 143, 152, 169, 184, 195, 196-197, 259.

Schiller "to go critically into the meaning" of this whole volume of essays.

Henceforth we should refer, then, not to "this essay" but to "*these essays*". Now as to the question of their date. I am glad to be able to testify that Dr. Schiller is correct in saying that these essays were published in 1904 and 1905, and therefore before *Pragmatism*, and *The Meaning of Truth*. He might have added also *The Pluralistic Universe*, and *Some Problems of Philosophy*. But it is ridiculous to say that they constitute "a very tentative and comparatively early work of James".¹ It would be sufficient to quote James's statement near the opening of the first essay: "For twenty years past I have mistrusted 'consciousness' as an entity; for seven or eight years past I have suggested its non-existence to my students, and tried to give them its pragmatic equivalent in realities of experience. It seems to me that the hour is ripe for it to be openly and universally discarded."² This does not sound either "tentative" or "comparatively early"! But the matter is quite beyond dispute inasmuch as Prof. James himself reprinted various references to these essays in his own later writings. Dr. Schiller suggests that it is "more probable . . . that this essay ('Does Consciousness Exist?') represents an experiment in thought that was not persevered in".³ Dr. Schiller's conjectures are quite gratuitous. Approximately one-half of the second essay, "A World of Pure Experience," was reprinted in *The Meaning of Truth* (1909) under the title of "The Relation between Knower and Known". In this extract James refers the reader to the essay "Does Consciousness Exist?" for an account of that kind of relation between knower and known which obtains in perception, when knower and known are "the self-same piece of experience taken over in different contexts".⁴ In this volume James also reprinted "The Essence of Humanism," containing the following passage: "They (*i.e.* knower and object in the case of sense-perception) must simply exist as so many ultimate *thats* or facts of being, in the first instance; and then, as a secondary complication, and without doubling up its entitative singleness, any one and the same *that* must figure alternately as a thing known and as a knowledge of the thing, by reason of two divergent kinds of context into which, in the general course of experience, it gets woven". To this he appends the note (possibly having Dr. Schiller in mind): "This statement is probably excessively obscure to anyone who has not read my two articles, 'Does Consciousness Exist?' and 'A World of Pure Experience'".⁵ The Article "A World of Pure Experience" as a whole is recommended to the reader in *A Pluralistic Universe* (1909) for a

¹ MIND, No. 91, p. 394.

² *Essays in Radical Empiricism*, p. 3.

³ MIND, No. 91, p. 394.

⁴ *The Meaning of Truth*, p. 103.

⁵ *Ibid.*, p. 127.

'radically empiricist' account of conjunctive relations.¹ In the same volume he reprinted "The Thing and Its Relations" and "The Experience of Activity," retaining the reference in these essays to the first two.² Of these references let me quote two. Referring to his treatment of "the Self" he writes "I sought to show that there is no direct evidence that we feel the activity of an inner spiritual agent as such (I should now say the activity of 'consciousness' as such, see my paper 'Does Consciousness Exist?')"³ Again, "Let me not be told that this contradicts a former article of mine, 'Does Consciousness Exist?' . . . in which it was said that while 'thoughts' and 'things' have the same natures, the natures work energetically on each other in the things, . . . but not in the thoughts".⁴

So much for questions of textual fact that Dr. Schiller could easily have ascertained for himself.⁵ They would perhaps be unimportant if the neglect of them did not lead writers like Dr. Schiller to a very misleading neglect of the doctrine of radical empiricism, and to a loose merging of James and Bergson, that is both historically inaccurate and disparaging to James.⁶ It is well

¹ *A Pluralistic Universe*, pp. 280, 343.

² *Ibid.*, pp. 347-348, 353, 379, 390.

³ *Ibid.*, p. 379.

⁴ *Ibid.*, p. 390. The "Experience of Activity" from which these two citations are made was evidently the basis of one of the last passages which James wrote, the unfinished account of "Novelty and Causation" in *Some Problems of Philosophy*. A paragraph is extracted from it and the reader is referred to the whole essay. Cf. *Some Problems of Philosophy*, pp. 212, 219.

⁵ I am assuming that it is too much to ask Dr. Schiller and Captain Knox to read the Preface to the *Essays in Radical Empiricism*, or to remember what is recorded there, when they are referring to the book. An examination of the Preface might have obviated this discussion altogether. In any case Dr. Schiller might have suppressed his remark that the "California Address" was "most strangely and inconveniently omitted from the volume" had he read that another volume containing miscellaneous essays was contemplated, the *Radical Empiricism* volume being exclusively devoted to essays bearing explicitly and systematically on that topic. And Captain Knox might have avoided printing as incorrect a statement, in word and in implied meaning, as has recently come from a reputable scholar. He says of *Essays in Radical Empiricism*, "This contains the remainder of James's occasional articles, ranging from 1884 to 1905, but does not represent his latest views" (*Philosophy of William James*, p. ix). Now, first, the volume contains less than half of the remainder of the articles not yet published in book form. Second, the articles are not "occasional" but excepting one or possibly two, constitute a series of interrelated articles. Third, they do not "range from 1884 to 1905," but are all published in 1904-1907, except the last which was published in 1884. Finally, the statement that the volume "does not represent his (James's) latest views" is either ambiguous, or, if it means that James did not hold these views at the end of his life, entirely baseless and false.

⁶ Cf. a timely and careful article by H. M. Kallen, "James, Bergson and Traditional Metaphysics," *MIND*, No. 90.

known, at least on this side of the Atlantic, that in August, 1909, James wrote on pragmatism as follows: "I am interested in another doctrine in philosophy to which I give the name of radical empiricism, and it seems to me that the establishment of the pragmatist theory of truth is a step of first-rate importance in making radical empiricism prevail".¹ He proceeds to summarise the doctrine as (1) the "postulate" that philosophers shall confine their attention to the experienceable; (2) the "statement of fact" that conjunctive relations are matters of direct particular experience; (3) the "generalised" conclusion that "the parts of experience hold together from next to next by relations that are themselves parts of experience". The *Essays in Radical Empiricism* contain the most patient and rigorous examination of these conceptions that he was spared to give. He refers to them at the culmination of his discussion of "The Continuity of Experience" in *A Pluralistic Universe*, where after his characteristic eulogy of Bergson as the deliverer from intellectualism, he takes up again the thread of his own independent reasoning.² It is in these essays that one finds the key to his pluralistic universe, to his notion of the world as a *collection* or *concatenated union*.³

James is not to be summed up in this or in any other paragraph, nor does his philosophical work consist in any *aperçu* which Bergson has caused to "blossom in the metaphysical sphere".⁴ James's genius for introspective observation and description has been generally recognised. His swift transforming insights, the extraordinary downrightness of his unpedantic mind, his sympathy and contagious enthusiasm, the instinctive rightness of his spontaneous or chivalrous beliefs,—these philosophical gifts have received something of the praise which they merit. But there is an impression in some quarters to the effect that James was incapable of rigorous technical philosophical analysis. This is largely due to the fact that the most widely known of his later writings were composed as semi-public lectures. James was too much of an artist to write for a popular audience what he might write for his philosophical colleagues. In any case the *Essays in Radical Empiricism*, together with *The Meaning of Truth*, demonstrate that James could reason as closely, analyse as exactly, wrestle with philosophical problems as patiently as the best of his critics who wrote more dully. They represent James as he was in the class-room and in the serious business of discussion. For this reason if for no other it would be absurd to overlook these essays, or to slight them. To relieve one's doubts, to get an answer to one's objections, or a clarification of terms, one is compelled to turn from *A Pluralistic Universe* to these essays, just as one is compelled to turn from *Pragmatism* to *The Meaning of Truth*.

¹ *Meaning of Truth*, p. xii.

² Cf. H. M. Kallen, *op. cit.*

³ *A Pluralistic Universe*, p. 280.

⁴ Schiller, *MIND*, No. 91, p. 395.

As to James's relation to Bergson, it is well to remember that if James could possibly do so he invariably gave some one else the credit for his ideas. He constantly magnified the good he saw in others and exaggerated his agreement. His generosity should not be exploited in order to identify him with others. It should rather be the business of his commentators to search out what is distinctive or peculiar in his view. He is not to be lumped with realism, anti-intellectualism, evolutionism, or any other familiar tendency. What is needed, for the present at least, is exegesis and the systematic collection of his many views. I am sure that critics have much to learn from him before rejecting him; and there is evidence to show that some at least of his "followers" have much to learn before they appropriate him as their own.

RALPH BARTON PERRY.

VI.—CRITICAL NOTICES.

Our Knowledge of the External World. By BERTRAND RUSSELL.
Open Court Co. Pp. ix, 245.

THIS book—Mr. Russell's Lowell Lectures—though intentionally somewhat popular in tone, contains some most important and interesting contributions to philosophy. Its scope is very accurately conveyed by its complete title; Mr. Russell deals with our knowledge of the external world 'as a field for scientific method in philosophy'.

The first chapter deals with Current Tendencies; it says something about Pragmatism, Absolute Idealism, and Bergson; and it tries to delimit the sphere of philosophy. If philosophy is to be a genuine separate science it must contain propositions about matters not dealt with in other sciences, and these propositions must be proved or rendered probable by the methods common to all science and to the sound reasonings of daily life. The difference between philosophy and the natural sciences (*e.g.* physics) is not that it deals with a more elevated subject matter, nor that it uses some superior method of argument, but that it consists of propositions about much more abstract entities. Again, like all genuine science (including ethics itself), philosophy must become what it has hardly ever yet been—'ethically neutral'. When philosophy is defined in this way three important results follow: (1) It can never conflict with any discovery of natural science or with any judgment of value; for propositions about entirely distinct subject matters cannot conflict; (2) We see that a number of problems which have been supposed to be pre-eminently philosophical belong to the natural sciences, and, if answerable at all, must be answered by empirical investigation. Examples of such problems are the immortality of the soul and the existence of God; and (3) the essence of philosophy is seen to consist in logic, defined in a certain sense which Mr. Russell elaborates in his second chapter.

In this chapter Mr. Russell gives a very useful account of the main results of the logical studies of Frege, Peano, Dr. Whitehead, and himself, with acknowledgments of further developments and modifications made by Mr. Wittgenstein and not yet revealed to the profane vulgar. He reiterates his belief that the logical basis

of most absolute idealism is the erroneous view that all propositions ascribe qualities to subjects. Moreover he insists on the importance of asymmetrical relations and of polyadic relations; by means of the latter, as we know, he considers that the problem of erroneous judgment can be solved. For any extended knowledge we need to know two very different kinds of things: (1) atomic facts, and (2) forms. The first are most obviously supplied by sense-perception and are asserted in such propositions as 'this is red' and 'this is to the left of that'. The second are the subject matter of pure logic; they are *a priori* and they assert of certain 'forms' or propositional functions that they give true propositions whatever 'matter' be substituted for the variable in them (provided of course that the proper restrictions as to logical type are complied with). The knowledge of forms and of the general propositions about them is essential to all inference; the knowledge of atomic propositions is equally essential if we are to hook our logical implications on to the existent world, to assert our premises, and thus assert our conclusions by themselves. The great use of modern logic as against the traditional logic in philosophy is two-fold: (1) It recognises an enormously greater number of primitive logical forms and thus sets free the logical imagination and provides the materials for an immense number of logical constructions to fit empirical facts, and (2) it enables us by means of the symbolic calculus to work out the results of our hypotheses much more fully and certainly than the ambiguity of words and the restricted apparatus of Aristotelian logic would allow. We no longer proceed in philosophy by gradually cutting out all possible explanations but one; we see that there is an immense number of logically valid explanations possible for almost anything, and we proceed to determine what is essential logically to them all.

The rest of the book, except the last chapter, consists in applying the methods and results of modern logic to the problem of the nature and reality of the external world. It divides into two parts. The first, contained in chapters iii. and iv., is an attempt to determine the relation between the world of sense-data and the world of physics with the fewest possible assumptions by means of the Principle of Abstraction; the second (chaps. v.-vii. inclusive) deals with the mathematical theory of infinity and continuity. The latter is of course comparatively well known to a certain number of persons, though evidently not to most philosophers out of Cambridge. It is valuable as presenting a clear and intelligible account of a somewhat difficult subject by one who is a complete master of it and himself a discoverer in it. The only new part is the little that has been called for by Bergsonian attacks on the mathematical doctrine of continuity and motion. These consist mainly of misunderstandings; but the amended Bergsonian doctrine that the mathematical theory is flawless but irrelevant to real motion was worth answering. The answer of course is to

distinguish between movement as a sense-datum and the movement constructed logically for the purposes of physics. Mr. Russell gives a physiological explanation of the sense-datum; but he is not content with this. He further points out that, even in perceived motion, what we must have is not something unitary and indivisible; but at each instant we perceive a slightly different extended motion. Thus we are again brought to a compact series, this time of sense-data. Of course, as Mr. Russell insists, two sense-data may differ and be proved to differ though they cannot be perceived to do so.

The most interesting part of the book to those who are already familiar with the mathematical doctrine of infinity and continuity will be chapters iii. and iv. In general we may say that they consist of an attempt to state phenomenalism in a logically satisfactory way by means of the notions and results of modern mathematical logic. In particular they make use of the Principle of Abstraction (which has proved so useful in the definition of cardinal and ordinal numbers and in the proof of existence—theorems for these) to define the space, time, and matter of physics as logical functions of sense-data, and their immediately given relations. Traditionally physical matter has been supposed to be inferred as the cause of sense-data, whilst the evidence for mathematical space and time has hardly been considered at all. Since any consistent logical function of actual sense-data must exist in the logical sense there can be no doubt of the existence of the space, time, and matter of physics if they can be exhibited as logical functions of actual sense-data. Whether they *also* exist in any other sense must remain an open question; Mr. Russell does not say exactly what this question means, but I think it means: Are there entities of the same logical type as sense-data, which have (apart from differences due to difference of type) qualities and relations with the same logical properties as those possessed by the functions of sense-data which fulfil the demands made by physics on its space, time, and matter?

Mr. Russell is not content with suggesting the possibility of defining the entities of physics in terms of sense-data, he proceeds to offer a tentative sketch of how this might be done. It does not profess to be complete, for it assumes both the sense-data of other people accepted on testimony, and possible sense-data; but Mr. Russell hopes, by introducing additional complications, to eliminate these and produce a purely solipsistic physics. His tentative theory (constructed to deal mainly with the data of sight) is roughly as follows. Each man's sense-data form an extended world and no sense-data are common to two private worlds. But there are correlations between similar sense-data in the various private worlds. A thing is the class of all the similar sense-data in all the private worlds. (We may compare Lotze's view that things are the laws of their states. The

superiority of Mr. Russell's theory is that he tells us much more carefully than Lotze what is meant by 'their' in this connexion.) The next task is to define a common space and a common time 'in' which these things shall be and 'in' which their changes shall take place. We construct a common space by taking each private world as a whole as one point in the new space; it is here that we have to introduce possible private worlds as well as our own and those which we know about by testimony. It is an empirical fact that the space so constructed has three dimensions. Next we notice that if we consider, *e.g.* all the private worlds which contain a round appearance of a penny and arrange them in an order in accordance with the sizes of the round sense-data they form a straight line in the common-space. Likewise all the private spaces which contain a straight appearance of the penny (*i.e.* as we say 'the penny viewed edgewise') constitute straight lines in the common space. And it is found that all these lines intersect each other when produced and intersect the line defined by the round sense-data at a common point in the common-space. This point of intersection is defined as 'the place where the penny is'. The particular private space in which there is a particular sense-datum of any shape which is a member of the class constituting the physical penny is called 'the place from where the penny has an appearance of this shape'. Physics is mainly interested in the places where things are, psychology is mainly interested in the places from which physical things have such and such an appearance.

The next task is to define the points of space themselves. Broadly speaking a point is defined as the class of all the sense-data containing the point. (When fully stated this definition is not circular.) Certain assumptions have to be made about sense-data in order to give to space the continuity which physics commonly ascribes to it. This way of looking at geometry has been carefully worked out by Dr. Whitehead and Prof. Huntington, and it is Dr. Whitehead's work which has inspired Mr. Russell to his attempted reconstruction of physics.

Finally a common temporal order for the states of things has to be constructed and here the effects of an intervening medium have to be interpreted in terms of the theory, and account has to be taken of the results that are summarised in the Theory of Relativity. When the common temporal order has been constructed it is a comparatively easy task to proceed to a further degree of abstraction and to define instants and their relations in terms of events and their relations. The logical apparatus needed for this has been constructed by Mr. Norbert Wiener in a very interesting paper in the *Cambridge Philosophical Transactions*. (It is unfortunate that, through a misprint in the present work, Mr. Wiener appears as *Wilner*.)

This, in the barest outline, is Mr. Russell's reconstruction of

physics. Whether it ultimately prove valid or not it is clear to me that it is of the most vital philosophical importance. It is hardly possible to attempt any criticism within the limits of a review; where I think further investigation is most needed is as to the grounds on which we classify together such varied appearances as a set of circles and a set of straight lines as the appearances of one penny, and yet classify several sets of round appearances as two different pennies. But I feel tolerably confident that any difficulties that may arise are difficulties of detail, and that, even if it be found necessary to introduce rather more ultimate assumption than Mr. Russell would like, he is on the right track.

The last chapter deals with Causation with especial reference to the problem of Free-Will. It is on the lines of Mr. Russell's paper in the *Proceedings of the Aristotelian Society*. Indeterminism remains a possibility, for there is no self-evident law that all events must have causes, when we are clear that causation means nothing but functional correlation. But there is no more reason for assuming indeterminism in human actions than in the physical world, and it is a fact that the general modes of reaction of well-known people to definite general types of situation can be foretold with about as much confidence as those of physical systems. In both cases if you insist on going into extreme detail your predictions may be falsified, and this *may* be due to the events in question obeying no law, though it may equally be due to our ignorance of the complete statement of the law.

C. D. BROAD.

The Great Society. A Psychological Analysis. By GRAHAM WALLAS. London: Macmillan, 1914. Pp. xii, 406.

THE author—perhaps it is his modesty—says that while he was writing this book he saw more clearly than before what it was about, and particularly its relation to his previous book—*Human Nature in Politics*. But I can scarcely conceive that he had not present in his mind, for some time before he began to write, a fairly shrewd conception as to its relation to his former book and indeed to psychological and political thought generally. Its genesis, as it appears to me, is explained by the following considerations, though I do not know that Mr. Wallas would accept this account.

Just as nineteenth century science claimed to reduce all knowledge to terms of itself, discarding and even vehemently denouncing as nescience what it could not thus embrace, so the growing analyses of sensation and the triumphs of psychology along the lower mental levels tended to explain all mental processes in terms of images and sensations and conative trends of the

satisfaction of our more fundamental and primary rather than of our higher and more civilised thoughts and impulses.

Mr. Wallas, in his previous book, pursued in detail the fundamental errors upon which the theories of modern democratic government were founded. Rational calculation of interest with the assumption that most men knew enough and were unbiassed enough to choose wisely for their State as well as for themselves (especially when compulsory education was put in force) must go the way of discredited beliefs; and the author did good service in the task of so discrediting them.

The whole psychological trend of modern thought has, indeed, undermined the assumption of the balanced, rational, far-seeing citizen. But, just as in the parallel case of Education, a full, and indeed, an enthusiastic adoption of a psychological method does not justify us in declaring that mental life is impossible to all except upon the lower levels; so a full recognition of the actual political make-up of human beings does not justify us in believing that there is no such thing as patient political thought, or that it is not worth our while to endeavour to organise for good the thoughtful elements in the State.

To follow the author through the detailed analyses by which he works is clearly impossible in the space of this review; but those aspects which are more specially concerned with Psychology must receive some attention.

No doubt, the phrase 'psycho-physical disposition' seems to postpone, if not to obviate, a decision as to the material or non-material basis of mental life; but I cannot say for myself that I have ever found it of much service; it has enabled some of us to wobble from side to side according as each seemed the better known, the psychical or the physiological; but it is very doubtful if we have not lost as much as we have gained; and the author definitely argues that, for social psychology, we need our facts to be projected on the same terminological plane.

Mr. Wallas, whilst admitting and indeed urging upon political philosophers generally the value of the psychological work already done by laboratory methods, reminds us that unimportant things will remain unimportant, however accurately we observe and measure them. Of course, when it was believed—I am not sure the belief is moribund—that mental life could be wholly constructed from sensations and images by a sort of synthesis, it was not unreasonable for a school of psychologists to ask us all to wait before attacking the problems of thought as such. Fortunately, psychology, without any departure from sound method, is itself beginning to attack the problem of the higher mental processes directly—the sensation-synthesis doctrine of mind is doomed, even upon experimental levels.

On his discussion of Instinct and Intelligence I shall say little. It has always seemed to me that the term Instinct brings with it,

in ordinary connotation, a non-individual sense, so to speak. Our instincts are common to us. But if that is so, many of the impulsive tendencies to action of men of initiative in art and science and social amelioration can by no means be regarded as instinctive. If they are so described, then, as I believe Mr. Wallas claims later on in his book, there are instincts towards thought in some of us which, however undesirable from the point of view of the gratification of many of our other instincts, can only be described as 'intelligent' without a gross perversion of common sense. But after, and indeed before, recent discussions, I was, and am tempted to doubt the distinction of instinctive and intelligent altogether, except for the roughest of classificatory purposes. Most, if not all, of the valuable distinctions involved could be made more definitely in other ways.

On the discussion on Habit I will make one suggestion. We do not, all of us, go on doing over and over again with greater ease and satisfaction what has become habitual. After a time we have had enough of that and take up the new with delight merely, it sometimes seems, because it is new. Every evolving life finds a progressive change of habits a necessity of its existence. This is doubtless what Mr. Wallas has in mind ; but he gives the risky statement in support of his argument that work under fatigue may produce most progress in accuracy. I think he misinterprets James, who is emphasising the need for proper intervals of rest in his celebrated dictum that we learn to swim during the winter. Effort, despite fatigue, produces some improvement ; but it does not produce the most in such conditions. Nor is it the 'natural' movements which are more difficult to acquire at first ; though the 'unnatural' ones may be easier and probably more effective after they have once been acquired. But, in any case, this chapter is a stimulating criticism against any political or educational creed, founded on *mere* habituation.

In the chapter on Crowd-Psychology the author shows good reason for recasting many popular notions. For myself, I should say that, just as in Education we are trying to quantify and make definite how much is due to individual impulse, how much to sympathy, how much to imitation in any given function, so we must in politics. The bias of philosophers and psychologists for their own special brand of explanation must give place to something much more exact, much less general, and much more applicable to the complexes of reality.

But it is not, I think, merely by the intellectualist criticism (I use the word intellectualism in no necessary antagonism to pragmatism) of current psychological concepts that Mr. Wallas would have us judge his book as a contribution to modern science. It is on Thought and on the Organisation of Thought that he would have us fix our attention. Whether Thought is always stimulated by instincts and emotions or independently, there it is ;

and no resolution of it into what it may have arisen out of settles the matter; we must deal with it directly.

It seems a little strange when, so far as I understand modern movements in psychology and education, a real methodology of thought in its relation to experiment is rapidly growing up, when recent workers habitually test their insight, or lack of insight, by carefully arranged experiment, not merely in laboratories but in the school and in the world, to find Mr. Wallas complaining that psychology lays all its stress on spontaneity; the published books will always be behind the best current practice; perhaps that is the explanation. In any case, the author renders a great service in setting out for us the conditions of useful thinking—would that municipal and other public authorities who really require thinking to be done by their officials would ponder over them; and further asks that we may nationally always have in mind that, without 'thought,' a people, however numerous, however strong in a military and naval sense, is not fully alive. More especially in modern States, when unearned increment becomes increasingly taxable, will it be necessary to find ways of providing suitable persons with the means and the leisure to think. Not only poets but all original persons must of necessity 'loaf and invite their souls'. And the author gives excellent suggestions toward what may be called the management and economy of thought.

There are here and there innuendos, at least, which suggest that the author believes current pragmatism to be against intellectualism in his sense. There are many pragmatisms; but I should have thought that the British variety, at any rate, lays stress, as against metaphysical intellectualism, on the very aspects of the creation of knowledge with which Mr. Wallas is primarily concerned. I would make one suggestion as to what seems to me an omission—there is an emotional glow in thinking, not merely when 'a new planet swims into our ken,' but one which is involved in the inchoate activity of thought; vague, almost formless; tending to definition, yet undefined; which pervades the thinker when he sets out upon those quests for which he is congenitally fitted, and which, more diffused, more steady, though less momentarily intense, sustains him to the end. We can call this instinctive, if we like; but it makes instinct responsible for most original thought; and we ought scarcely to call it instinctive merely because it is unreasoned. This emotion of thought is present in most of us long before triumph or 'ordered beauty' is, if ever, achieved; indeed, achievement is no more than momentarily satisfying to any progressive life.

But Mr. Wallas's book is not merely 'a psychological analysis'. In the three concluding chapters he puts forward certain practical proposals. He spent some of the best years of his life in Educational Administration, and this gives weight to his suggestions which mere 'academism' could not bestow. He shows us how

our most cherished governmental institutions—parliaments and councils—are not really—to use his terminology—Thought-organisations, but rather Will-organisations: he points out to us what the ‘high-official’ can and has to do; not deploring him as an unpleasant necessity, but exalting him as a potent factor in Thought-organisation, though by no means unaware of his ‘officialism’; from which, indeed, only the most vigorous-minded officials in actual touch with the lives affected by their decisions can escape: and he warns us that we are not doing enough, by seminar and discussion-class methods, to bring the aid of ‘dialectic’ to passive learning from lectures, books, and newspapers.

In the chapter on Will-organisation we are profitably reminded that the continued growth of Collectivism depends upon the efficiency of the machinery by which the collective Will is ascertained and enforced—the assumption being, for the moment, that there is a collective Will and that its related Thought-organisations are more or less satisfactory. For when voters are voting, not from national reasons, nor even for party reasons, but for an increase in their own pay, which may or may not be economically or biologically desirable, we are face to face with a real, perhaps the most real, difficulty of collectivism. Indeed, as the author points out, the extreme individualist and the out-and-out syndicalist both base their claims on property—*les extrêmes se touchent*. And, in the last chapter, the thesis is enforced that Happiness at work depends mainly—apart of course from merely biological considerations—on the size of the industrial unit and the methods of its supervision; and some suggestions are made to render the latter less mechanical.

I fear that this choppy ‘notice’ scarcely gives even an outline notion of Mr. Wallas’s deeply interesting and valuable book. I have started several times to review it, but have found myself re-reading rather than reviewing—perhaps that constitutes one of its strongest recommendations, if I may be permitted an official phrase.

W. H. WINCH.

Wilhelm Diltheys Gesammelte Schriften. II. Band. *Weltanschauung und Analyse des Menschen seit Renaissance und Reformation.* Leipzig und Berlin: Teubner, 1914. Pp. xii. + 528.

DILTHEY’S well-known *Einleitung in die Geisteswissenschaften*, a book which is hard to come by, dates from 1883. It was by no means the firstfruits of his literary activity. And brain and pen were continuously busy down to his death three years ago. Dilthey’s unit of output was rather the essay than the book. Although what he wrote fell into its place in reference to an undertaking planned on the grand scale, nothing was exempt from

reconsideration. In one sense he completed nothing. The 'Introduction' itself will, we learn, be much augmented in this edition by insets and annotations from unpublished manuscripts. The volume now published—vol. ii. of the Collected Works—which consists mainly of monumental studies from the *Archiv*, may be regarded as a supplement to the more famous work. How closely it connects is intimated in the note on page vi. Yet its unity has been achieved posthumously. Dilthey had apparently designed to collect the scattered articles embodying his philosophical outlook. But the volume in which the task is fulfilled is yet to come. The *Jugendgeschichte Hegels* (1905), from which the newer conceptions of the course of the idealistic development derive their inspiration, will, we are told, find complementation in hitherto unpublished matter on Hegel of quite first-rate importance. Manuscript sources not drawn upon for the enrichment of the volumes containing previously printed work are to supply a whole volume of fresh material. And finally in a supplementary volume the literary studies *aus vier Jahrzehnten*—on Goethe and others—will be associated with further æsthetic writings. Seldom surely was editorial responsibility for Collected Works more severe.

For Dilthey was one of the great ones of his epoch. He was, as his editors claim, *Philosoph und Historiker zugleich*. Not a philosopher among historians and a historian among philosophers, but historian and philosopher both. The *Contaminatio* helps to give its characteristic quality to his writings and teachings. The wisdom and insight of the *Weltanschauung* are doubtless most important from the way in which it affected the direction and spirit of our author's historical studies and illumined his criticism. It is the historian, that is, of the development of the concepts that obtain in and rule the spiritual life of the modern world, that we could least afford to spare. But the philosophy is characteristic and gives to the historico-critical work much of its distinction. Dilthey's philosophic point of view belongs to the reaction against the great panlogist systems of the early nineteenth century. Spite of the aftermath which they were, as they are, still producing, they were something of a spent force in the Germany of his youth. As against a dialectical construction Dilthey claimed that we must stress the whole life of man. In the development of the spirit, religion as distinct from metaphysic plays at least as great a rôle as the latter. Side by side too with Greek intellectual-scientific speculation, the practical philosophy of the Roman, with its grounding in will, has lived on as an enduring force in the after-world.

As regards a philosophy endued with finality Dilthey inclined to be sceptical. His attitude is that of Schiller's

Aber—die Philosophie hoff' Ich, soll ewig bestehn,

or the same author's famous

Die Weltgeschichte ist das Weltgericht.

What any one man can do is conditioned by his definite environment of time and place and atmosphere. He will apprehend one or more of the facets of the myriad-sided prism with some clearness. Let him under the limitations of this perspective make his several contribution to the unitary system. That system—the philosophy—he must fail to construe in its entirety. To bring to unity disparate categories, and such there are, is beyond the fetch of human capacity. Genius, however, sometimes adumbrates how their harmony may be conceived. This may be termed the essential metaphor of Dilthey's outlook. If we add his deep-seated conviction of the dynamic nature of the human experience which must be taken un mutilated as the object of inquiry, and his interest, not only in relation to Schleiermacher but continuously and throughout, in the religious problem as such, we have some at least of the dominant notes of what may be called the humanism of our author, *i.e.* of that anthropocentric outlook which finds in man and his spiritual manifestations the problem and the line of solution. In a broad sense of the word Dilthey was a great Humanist. The title of the present volume of the Collected Works, reflected from the titles of the first and last treatises that it includes, indicates the frame of mind in which Dilthey confronted ultimate problems.

To the philosopher it is of course the developing thought that is all important. Estrangement from ideas, such as characterises our bourgeois society, Dilthey condemns as a certain sign of poverty of spirit, and in reference to Buckle's tendency to find in an emphasising of the sceptical note the mark of progress, he remarks that the constructive work of a new era calls before all things for a stable attitude of the intelligence. And the religious life likewise will never be without dogma. On the other hand dogma may be a fresh crystallisation upon the dissolution of older forms. The development, then, of concrete thought prompts and requires the methods of the historian. It is for this reason that much of Dilthey's most typical work is of a kind to which the nearest parallel among English writers is perhaps afforded by the late Lord Acton in his more philosophical flights. The marked difference of general outlook only serves to set in relief the likeness. There is the same lavish learning subordinated to the same firm handling of dynamic ideas. There is too the same breadth of appreciation freed from all necessity of recognising limits of time or nationality.

Does modern history begin with the call of Abraham or with the fall of the angels? Does ancient history close with the French Revolution or with the sounding of the last trump? Dilthey at least need have no fear as to his powers of satisfying Freeman's ideals. Apart from the *Einleitung*, proof of our author's backward stretch is altogether abundant also in the present volume. Is it Spinoza's classical learning that is in question, or Macchiavelli's

debt to Polybius, or Melanchthon's borrowings from Cicero, Dilthey is ready with chapter and verse. The tracing of the persistent influence of the Stoa on the 'rationalism' of the post-Renaissance development is exhaustive. The elucidation of the continuity of modern pantheism with the ancient systems is elaborate. The sweep, however, of Dilthey's survey of non-German thought in the modern world is more arresting still. Of English writers Hobbes, perhaps, and notably Shaftesbury come triumphantly by their own. Shaftesbury seems to have influenced Goethe as much as he influenced Lessing, and the wealth of parallels from Goethe and Herder to the pronouncements of the Englishman supplies an altogether new standard from which to judge him. And if Bacon is treated almost wholly from the side of the Essays, and with reference mainly to the seventeenth century analysis of the passions—the Advancement of Learning is styled an English edition of the *de Augmentis*, Bacon's works are dated 1605-20, and he is credited with three inductive methods, so that here surely our author nods—Hobbes and his affinities receive, with an eminently judicious use of Tönnies' monograph, excellent and sympathetic treatment. Not only the cleavage in Cartesian dualism, thinks Dilthey, but the failure of the philosophy of the *Conatus* to account for the passions as mental motions, may have prompted the development of the thought of parallelism in Spinoza. Hobbes too had drunk from the Stoic sources as well as from Telesio, and he as well as Telesio affected Spinoza's 'Stoicism'. And if Languet anticipated Hobbes in the advocacy of the geometric method—Dilthey's learning is often somewhat resurrectionist—it is an acute point that jurisprudence had familiarised Hobbes with the deductive method before Euclid supplied him merely with a model. A further point in regard to Hobbes is made in the attribution to him rather than to Gassendi of the mediation between the method and mechanical concepts of ancient atomism and those of eighteenth century materialism. So too Dilthey is aware of Falkland and Chillingworth, has dipped into Locke's commentaries on St. Paul's epistles (!), and has analysed the citations of Herbert of Cherbury, and can aver that characteristically the name of the Florentine Puccini, who alone had anticipated Herbert's formula of natural instinct, is not to be found there. Among the Italians too Dilthey is at home. On Bruno he is almost at his best.¹ Petrarch and Macchiavelli receive a handling only less striking. Of the French even Charron comes in for notice. And the Dutch writers, too, find appreciation, Coornhert, humanist and Christian, with his debt to Cicero and Seneca, and his plea for mutual toleration among

¹ The first section on Bruno was published in 1893, under title, *Giordano Bruno and Spinoza, I*. The second is from hitherto unpublished manuscript. The Essay on Pantheism, in which it is carried substantially further, bears date 1900, while the editors have still to add a note (p. 521) on Bruno and Shaftesbury, summarising further work.

the sects,—a political need as Dilthey notes rather than an ecclesiastical aspiration,—and Oldenbarneveltdt, with many others. Yet there is no parade of cosmopolitanism without root in nationality. In the handling of German material range and penetration are alike great. Sebastian Franck, Hutten and Pirkheimer find place beside more famous names. The Erfurt humanists and the letters of Conrad Mudt¹ receive due appreciation. In fine the setting in detail is no less effective than the presentation of the central figures in the pageant of Teutonic development.

While it is far more natural to quote Dilthey for facts and for judgments than for striking phrases or outstanding paragraphs, his style is an effective one. Witness the *Luther Kam* (p. 53) inserted between two long paragraphs, or the characteristic passage on the Limits of the Reformation (pp. 71 *sqq.*). It is however toned to his scientific conception of historical work. Of rarer single flashes perhaps *Das römische Christentum war regimental* (p. 58), or 'Every great historical cause is *einheitlich*, but it is not therefore *einfach*' may be offered as typical. Or the striking thought of the Multiple Consequences of a system, so that, *e.g.*, points in Cartesianism necessarily dropped by Spinoza are taken up again by Kant and others. And again the raising of phrases like 'transcendental theology' and 'the panentheism of the mystic' to the dignity of legal tender in the world of thought.

Not unnaturally the protagonists of the reformation occupy considerable space in Dilthey's scheme. Luther dominated the men of his time, he declares, *weil sie ihr potenziertes Selbst in ihm zu erkennen glaubten* (p. 55). It is not Luther, however, nor Calvin, nor Zwingli, though the connexion of the latter's *de providentia* with the Stoic doctrines of immanence and determinism is pursued with vigour, but rather Melancthon who receives most sympathy and understanding. Dilthey's work on this thinker will not need to be done again. He is aware of his faults (p. 168 n.), and of the sources for his most characteristic doctrines (notably p. 176 n.), but he recognises the range of his influence—influence is a point which has already led Dilthey to couple Reuchlin with Erasmus—and despite of the shallowness of much of the man's teaching sees that Melancthon's dialectic is still a link in the chain 'from Aristotle by way of St. Thomas to Christian Wolff'. And Dilthey would forgive much to an exponent of the doctrine of the inborn light whose dependence on Cicero is so manifest.

When Dilthey speaks of the 'natural' system of the moral sciences in the seventeenth century, he uses the word 'natural' as it is used in such phrases as 'natural theology'. Thus understood, the continuity with the 'autonomy' of the next essay is obvious, and the 'anthropological' bearing of both, in an eighteenth-century use of the word, follows simply enough. As we advance beyond

¹ Dilthey cites: Tu, Iove, *i.e.*, optimo maximo deo propitio, contemne deos minutos. Quum Iovem nomino Christum intellego.

the field in which Dilthey's learning is revealing to us bright particular stars who have never, or hardly ever, flashed within our range, introducing us to Flacius, for example, and to such conceptions as 'biblical rhetoric' (p. 117 n.), his thought seems to nucleate itself in certain ganglia. Whatever bears on the key-notes to be found in Spinoza, *e.g.*, is treated with lavish care. In view of the tendency to explain so much in Spinoza from Jewish sources and from the development that culminated in Averroes, it is instructive to see what Dilthey accomplishes with the Stoic tradition, and Hobbes and Telesio, while the line of evolution suggested certainly finds support in the story of the influences that are at work in Spinoza's political philosophy. Another nucleus is the rationalistic core in a theological upgrowth of wide ramifications. The significance of Socinianism, for instance, calls for attention. The clue to it is the need for Protestant Christianity to justify itself at the bar of humanist rationalism, and the conviction that it must purify itself therefore as a preparatory to its apologetics.

A fascinating feature of Dilthey's constructions is his use of the biography of his protagonists to throw light on their personality and thought. That this is often episodic only, following out all the clues to elucidate a single light, makes little difference to its effectiveness. The indications as to Melanchthon's life, the references to Bruno's sojourn in England, the vigour with which the Frau von Stein's manuscript is analysed to throw light on the relation of Goethe to, Spinoza, are cases in point. Sometimes brief enough, sometimes detailed but covering a period of relatively narrow limits, they always are contributory to the required picture.

If we realise that this volume is more disjointed in character than some at least of the remainder can possibly be, that it represents very characteristically the surface desultoriness of composition on the part of our author, as well as his firm hold upon the main threads of a great plan, Baconian or Leibnizian in design, we may well congratulate ourselves on the menu according to which Dilthey's editors undertake to regale us in the future, as upon this present feast.

HERBERT W. BLUNT.

VII.—NEW BOOKS.

Froebel as a Pioneer in Modern Psychology. By E. R. MURRAY. George Philip & Son, Ltd., 1915. Pp. 230.

Miss E. R. Murray's little book on *Froebel as a Pioneer in Modern Psychology* deserves attention, for it comes at a time when the great educator is under a cloud. Of late years it has been the fashion in some quarters to speak slightly of Froebel's work and power. His mysticism is often referred to with a sneer, and he is apt to be regarded by some of the younger generation of teachers as antiquated and little worth troubling about. For them the Dottressa Montessori occupies the stage, and they look upon Froebel as a star long since departed. Miss Murray has set herself the task of helping Froebel to come to his own. She desires to prove that even in the light of our best and most modern psychologists, he does not stand eclipsed, but rather has anticipated all the most important of their views.

The plan of the book is to take one by one the modern views on the analysis of Mind, on Will, on the gradual evolution of Self-consciousness, on Attention and Instinct, and to show that Froebel has anticipated the conclusions of our foremost psychologists, of Dr. Ward, of Prof. Stout, of Mr. MacDougal and various American writers.

The task set is admirably performed. Parallel passages are brought before us of the most striking similarity, passages that prove Froebel to be greatly before his age, and in really remarkable accordance with our present-day leaders. *E.g.* in dealing with the gradual development of will from early mental activity Prof. Stout tells us that it is of the essence of conation to seek its own satisfaction, and this is only possible as the conation becomes definite. "Blind craving gives place to open-eyed desire," as the original conation tends to define itself. So, "the gradual acquisition of knowledge through experience is but another expression for the process whereby the blind craving becomes more distinct and more differentiated". This is compared with a passage in Froebel's paper on "Movement Plays". "All outer activity of the child has its ultimate and distinctive foundation in his inmost nature and life. The deepest craving of this inner activity is to behold itself mirrored in some outward object. In and through such representation the child himself grasps and perceives the nature, direction and aim of his own activity, and learns also further to regulate and determine his life, that is his activity according to these outward phenomena." Froebel's conclusion that only as this unconscious or blind craving for action is satisfied does the child become conscious of the nature, direction and ends of his own activity, is but another way of stating Prof. Stout's conclusion that the grouping of cognition, which is the gradual acquirement of knowledge through experience, is "the way in which the conation itself grows and develops". (See pp. 27, 28.)

It is to Dr. Ward that we owe the wonderfully clear picture of the dawn of consciousness, the gradual development of "a total presentation

having the character of one general continuum in which differences are latent," but even here Miss Murray points out that Froebel probably avoided the "mental obscurity" of his contemporaries because he held somewhat the same view as his successors. "Although in itself made up of the same objects and of the same organisation, the external world," he writes, "comes to the child at first, out of its void, as it were, in misty, formless indistinctness, in chaotic confusion; even the child and the outer world merge into one another."

The chapter on Instincts is particularly interesting, as Froebel is here brought into touch with Mr. MacDougal as well as Mr. Kirkpatrick and Mr. Ebbv.

Froebel is found to have admitted an instinct of Self-Assertion, and his views on Play and Imitation are held to be in close accord with those of Mr. MacDougal.

In the chapter on Play Miss Murray takes each modern theory in turn and shows how remarkably Froebel has anticipated them. Of play as "surplus energy" Froebel, like our most recent writers, will have none, for according to him there is not more than enough "healthy vital energy" in each child. But as far as our chief authorities, Groos and Stanley Hall go, Froebel, according to Miss Murray, really combines their theories of Preparation and Recapitulation. "You know that your sons need energy, judgment, perseverance, prudence, etc., . . . and all these things they are sure to get in the course indicated" (*i.e.* through play) (pp. 138-139). "In the development of the inner life of the individual man, the history of the mental development of the race is repeated." "Each successive individual human being must pass through all preceding phases of human development."

Having convincingly shown us Froebel's points of likeness to our modern writers, Miss Murray goes on with great frankness to consider Froebel's weak points. It is probably on this chapter that both earnest Froebelians and Froebel's opposers will have most to say. The former may criticise the author's evident objection to Froebel's mystic tendencies which she dismisses with the assertion that "the average teacher is incapable of philosophy". Philosophy and mysticism are not necessarily identical, but it is clear that Miss Murray has little sympathy with the mystic type of mind.

In the chapter which answers some criticisms Miss Murray shows conclusively that many of Froebel's critics have never taken the trouble to master all his works and so take him "as a whole". She proves by careful reference to the text that Froebel is by no means guilty of the accusation of making the educator's work merely passive. "*Leidend*" is not to be translated "passive" but rather "bearing with," "having patience with," and she brings forward one quotation after another in proof of her contention.

Mr. Graham Wallas's objections are well dealt with, but it does not seem as though Prof. Adams's objection to the plant theory is quite so well handled.

To the ordinary reader the book with its perpetual quotations may conceivably seem dull, but both to the students of Froebel and those of Modern Psychology the book will appeal, for incidentally Miss Murray has given us a most useful summary of some of the most important developments of our modern psychology, but in such a way that the reader is bound to go to the sources themselves, if not already well-known.

There is one curious omission in a book published at this date, *i.e.* there is no mention of Dr. Montessori, as one of Froebel's greatest

successors. Possibly the author felt that to add another chapter in proof of the likeness between the two leaders would contribute too much to the bulk of the volume. It is quite evident that to her Froebel still reigns in the kingdom of childhood.

We cannot close this convincing little book without a feeling of gratitude to the author who has done for us what we are all either too lazy or too busy to do for ourselves. She has gone straight to the original works, not only to a selected few, but to all, and with great patience has disinterred from what must be admitted is often vague and obscure, the very kernel of Froebel's teaching. This could never have been done had not our modern teachers shown the way, but with their lights to guide her, Miss Murray has certainly succeeded in giving us an interpretation of Froebel which will make us realise his greatness, and acknowledge ourselves, with a surer faith than ever before, his followers.

ALICE WOODS.

Berkeley and Percival. By BENJAMIN RAND. Cambridge University Press, 1914. Pp. x, 302.

Dr. Rand is rapidly laying under a heavy obligation all who are interested—and who is not?—in the early eighteenth century. He recently discovered and published Shaftesbury's *Philosophical Regimen and Second Characters*; and in this volume he has edited the correspondence of Berkeley and Sir John Percival, afterwards first Earl of Egmont. All the letters here printed are in a manuscript collection in the possession of the present Earl of Egmont. Some use was made of them by Fraser and Lorenz, but this is the first edition to give them in their entirety.

The excellence of Dr. Rand's editorial and bibliographical work is so well known that it is almost unnecessary to say that he has discharged his task with skill and care. To the letters he has prefixed a "Biographical Commentary," which is, for the most part, a paraphrase of the letters. From 1709 till 1733, the period in which nearly all the events of Berkeley's life occurred, the letters form an almost complete history, and very few *lacunæ* require to be filled in. In this Commentary I have noticed only one serious error. With regard to the letter of March 1, 1710, Dr. Rand says, "In the same letter Berkeley also states that he had written to Samuel Clarke (1675-1729) to favour him with his thoughts on the subject of God's existence". Now a little examination shows, I think, that this letter does not refer to Samuel Clarke. The passage runs as follows: "About the same time I wrote to Mr. Clarke, and desired he would favour me with his thoughts on the subject of God's existence, and the proofs he thought most conclusive of it, which I imagined would prove a grateful entertainment while his sore eyes prevented his reading". Now for three reasons this cannot refer to Samuel Clarke: (1) The "Mr. Clarke" of the letter is known personally to Berkeley. "I am in pain for him," he says in the same letter, "having not heard from him this long time." But at this time Berkeley did not know Samuel Clarke personally. When, later, he wished to get the opinion of Samuel Clarke on the *Principles*, he did not write to him direct, but sent his letter to Percival, requesting him to deliver it (letter of November 27, 1710). (2) "Mr. Clarke" is known personally to Percival. Berkeley says to Percival: "Pray, if Mr. Clarke be alive, give my humble service to him". But at that time Percival did not know Samuel Clarke (see letter of October 30, 1710). (3) Berkeley says of "Mr. Clarke": "I am often enquired of about his character, and I would fain add the love of letters and study to the rest of his good

qualities". It would be absurd to say this of one of the most crude men of the day. And it is ridiculous to think of Samuel Clarke being requested to set down his thoughts on the being of God to pass the time while his eyes were sore. Only four or five years before, his Boyle lectures on the Being and Attributes of God made him the recognised authority on the subject. For all these reasons, the "Mr. Clarke" of the letter cannot be Samuel Clarke. Who then is "Mr. Clarke"? Possibly he is the same as the Mr. Clarke who is frequently mentioned in the letters, e.g. pages 64, 79, 98, 104, 106, 125, and who is shown by them to have been a friend of Berkeley and an intimate friend of Percival. He was probably no great authority on the being of God, but the form of Berkeley's request seems to indicate that it was addressed to a man who was not an authority. And Berkeley's other letters at the time show that he was rather fond of interrogating the "plain man" on philosophic questions. But perhaps "Mr. Clarke" is some person of whom nothing else is known. Campbell Fraser's error in attributing to Berkeley a letter signed George Berkeley, which Lorenz proved was written before Berkeley was born, should make us chary of inferring identity of individual from similarity of name. Two small points before we pass from the Commentary. Dr. Rand says that the first intimation in the letters of Berkeley's Bermuda project is contained in the letter of March 4, 1723. But there is a reference to it before that, in the first paragraph of the letter of December 16, 1722. Again, Dr. Rand states that before his work it had been uncertain when and where Berkeley's well-known verses on America were written. This is not so. The origin of the verses was discovered by Campbell Fraser (*Works of Berkeley*, iv., 365).

The student of philosophy who comes to these letters expecting fresh light on Berkeley's thought will be disappointed. Most of the passages of interest in connexion with Berkeley's philosophy have already been quoted by Campbell Fraser. In any case, there are not very many of them, because, though Percival was an excellent man, he was not, as Berkeley soon discovered, much of a philosopher. After the first few letters philosophical matters in the narrower sense are never raised. The chief importance of the letters is biographical. The fact that stands out with special clearness in them is Berkeley's extraordinary persistence in any project in which he happened at the time to be interested. The letters from 1721 till 1724 throw an interesting light on Berkeley's ingenuity and practical prudence in his endeavours to obtain the Deaneries of Dromore, Derry, and Down. He displayed even greater perseverance in forwarding his Bermuda project. It seems possible that the *nisus* to this scheme proceeded from Berkeley's disgust with his lawsuit over the Dromore Deanery. On March 4, 1723, he wrote to Percival that it was about ten months since he reached his determination on the missionary project. Now that puts the decision exactly at the time when Berkeley became immersed in his lawsuit, when in utter disgust he wrote, "God preserve your Lordship from law and lawyers" (April 14, 1722).

Considered simply as letters, this correspondence is not in the first rank. In Berkeley's earlier letters, which are by far the most pleasing, he makes interesting remarks on many prominent men of the day—Addison, Swift, Steele, Pope, Sacheverell, Arbuthnot, Whiston and many others. But somehow Berkeley did not have the qualities of the great letter-writer. Perhaps he was not sufficiently detached. His interest was always concentrated on some one scheme, and the great letter-writer must always be something of a dilettante. Berkeley's letters are rarely dull, but they cannot compare with those of Swift, of Cowper at Olney, Gray at Cambridge, or Fitzgerald at Woodbridge.

The Psychology of Revolution. By GUSTAVE LE BON. Translated by BERNARD MIALL. London: T. Fisher Unwin. Demy 8vo. Price, 10s. 6d. net.

In this book, M. Le Bon, fresh from his study of the psychology of the Crowd-Mind, proceeds to apply his conclusions to the interpretation of the causes, course and significance of the French Revolution. The results are at once interesting and disappointing. The author's application of his doctrines to the history of that remarkable time is very interesting; but I am inclined to think that they do not materially alter one's opinions of the forces which controlled the conduct of the actors or shaped the course of events in the drama.

M. Le Bon's main contention is that history has failed to comprehend these matters, because it has insisted on regarding the ideals and beliefs of the time as based on rational grounds. He recognises that ideals and beliefs, religious, mystical and political, have always been the main-springs of great historical movements, and that to explain the movements, it is necessary to explain the origin of the beliefs. So long as psychology or history will regard these beliefs as voluntary or rational, he asserts, they will remain inexplicable: for it is not "the rational logic which conditions thought" that generates them.

However, once in existence they infect the 'crowd' of individuals who compose the State: and spreading by the psychological "laws" which M. Le Bon has formulated in his work on Crowd Psychology they produce such revolutionary movements as the Reformation or the French Revolution itself. But these movements, as M. Le Bon himself remarks (p. 29), "have usually commenced from the top, not from the bottom": and whatever sort of logical bases the ideals of Luther or Calvin may have had, I should have thought that those of Montesquieu, Voltaire, Turgot, Condorcet, Rousseau were pre-eminently 'rational'. The 'Sansculottes' may not have been rational, either in thought or action: but the ideals of their leaders (and leaders, as M. Le Bon affirms, are absolutely necessary for Crowd-action) had originally been formed by very logical deductions from abstractedly rational premisses.

M. Le Bon's analysis of the psychology of the various Revolutionary Assemblies and their leaders is extremely interesting, and succinctly summarises a great many important truths about their actions,—truths which political prejudices still existing often tend to obscure. But here, again, I am rather inclined to question the novelty of his conclusions. His description of the "Jacobin Mentality," for example (chap. ii.) seems to me to reduce itself ultimately to the statement that the Jacobins were fanatics of the first water: and political fanaticism does not differ very markedly from religious fanaticism at any time.

The really valuable point which M. Le Bon establishes seems to me to be the fact that political assemblies are simply Crowds,—of a special kind: but subject to exactly the same psychological processes and presenting exactly the same psychological phenomena as the fortuitous collection of individuals that make up a mob. The passion of Fear, so potent in crowds, was undoubtedly the master-motive which dictated the conduct of the Constituent and Legislative Assemblies, and of the Convention.

In a very interesting chapter, M. Le Bon discusses the results of democratic evolution, and the modern political psychology of France. If his conclusions are true, the fiery trial through which the Third Republic is passing to-day, may well be its salvation: but the deeds and conduct of the French nation during the last months of 1914 suggest that the colours of the picture are unnecessarily dark.

The translator's work would have been more effective if it had not been so literal. Some of the sentences in the book are certainly not English (*e.g.* p. 55, last line; p. 70, line 10; p. 73, line 16, where the English word 'momentarily' is actually a mistranslation; p. 128, line, 28; p. 140, line 18, where the sentence has no meaning at all to the English mind).

J. W. W.

William James and Henri Bergson: A Study in Contrasting Theories of Life. By HORACE MEYER KALLEN, Ph.D., of the University of Wisconsin. The University of Chicago Press.

The intellectual sympathy between Prof. James and M. Bergson, felt and acknowledged by both, was not, as generally supposed, due to an agreement between the two philosophers in their attitude toward the great problems. On the contrary they offer us and represent contrasting theories of life. This is Dr. Kallen's thesis which he defends with great zeal. He seems particularly anxious to show that the attraction which James felt for Bergson's philosophy was not for that philosophy as a whole, nor for any of its distinctive doctrines, but only for the comparatively unimportant negative feature of it, its critique of intellectualism. With Dr. Kallen it is a case of "Jacob have I loved, and Esau have I hated". The contrast is complete. Bergson is monist, James is pluralist. Bergson belongs to the philosophic tradition, he carries on the line of the great system makers, his system is so logical and complete that it is difficult to state one of his opinions without becoming involved in a restatement of the whole system. James on the other hand is myriad-minded and empirical, looking forward to the future, alert to the unique, the individual, the *important*. It is apparently nothing to the point that this view of the relation of the two philosophers is inconsistent with the expressed declarations of both, that Bergson has described his philosophy as reversing the Platonic tradition, and that James has spoken of himself as sitting at the feet of Bergson. What then is the ground of this extraordinary valuation of the two philosophies? It is a long-drawn argument, but it rests, as it seems to us, exclusively on the posthumous work of James, *Essays in Radical Empiricism*. At any rate without it the argument would be pointless. Some of these essays are among the best of James's writings, though they belong to very varied periods; they strike, however, the sympathetic note between Dr. Kallen and his master. Radical empiricism seems to Dr. Kallen to point the way to New Realism, and New Realism is the philosophy of the future. The argument is singularly unconvincing, even on its own premisses, less perhaps in its appreciation of James than in its travesty of Bergson. It would be easy enough to make out a case for the exactly opposite contention, namely, that it is Bergson, not James, who is pointing to a New Realism. But the misconception which regards Bergson's philosophy as a system is inexcusable. It is no doubt due to a failure to appreciate that view of a problem which Bergson expresses by the term *globale*. No philosophical problem can be isolated, its significance lies in its relation to the whole problem of life and knowledge. To have philosophic vision, to see everything *globalement*, is not to be a system builder.

Dr. Kallen's book is enjoyable reading, notwithstanding, perhaps partly on account of, its queer and remarkable terminology. The reader will learn much about "desiderates" and will be made acquainted with "prospective ultimacies" and "utter and transitive nextness," and an uncanny thing called "a tychistic universe".

H. W. C.

Religion in an Age of Doubt. (Library of Historic Theology.) By the Rev. C. J. SHEBBEARE, M.A. London: Robert Scott, 1914. Pp. xx, 219. 5s. net.

Mr. Shebbeare's lucid and attractively written book will help to imbue theologians who read it with a sense of the extreme value of sound philosophic training for their special work. "The fault, surely, of much recent theology," he remarks, "is that its writers are devoid of intellectual hope. They do not expect more light upon the mystery of the divine nature: there is no evidence that they even wish for it." Against this Mr. Shebbeare argues capably that a theology which declines to think out and through its problems must sink into mythology, though his book in great part is devoted to a competent and discriminating exposition of Ritschlian method. He approaches Ritschl by way of Kant, on whom he has something fresh to say from an unusual standpoint, claiming, for instance, that Kant has strengthened the case of the preacher "by describing moral consciousness in a way which may be seen to be correct by those who possess it". Indeed, he goes so far as to identify evangelical "faith" with the Kantian "good will," but here the argument is too brief to prove more than analogy. He agrees with Ritschl in basing religious belief on moral insight and historic fact, as also in denying that theology can be studied to purpose in a spirit of entire detachment. He rightly dissents, however, from Ritschl's thorough dislike of metaphysics; the doctrine of God, for any thinker, must pass into a theory of the universe. The argument from Design can be restated, and he ably restates an æsthetic form of it, but without raising the vital question whether the notion of Deity it may indicate would in the least satisfy the religious consciousness. In the next chapter it is rather unconvincingly urged that if conscious life has supreme value and matter is good, optimism demands the resurrection of *sensible* body as well as soul. Acute but unduly short notes are given on idealism as well as on the theory of knowledge involved in a fully equipped theology. These are the chief points of specifically philosophic interest, but the volume as a whole is delightfully and freshly relevant to the modern mind and will do real service in disseminating good philosophy in religious circles. Cheerfulness keeps breaking in as with Dr. Johnson's friend who tried to be a philosopher; Mr. Shebbeare's comment on one aspect of Tractarian thought being that "God, Man, and the Universe,—rather than the special claims of the Church of England,—are, after all, the central subjects of theological inquiry".

H. R. MACKINTOSH.

Können wir noch Christen sein? Von RUDOLF EUCKEN. Leipzig: Verlag von Veit & Co, 1911. Pp. 236. Price, M. 3.60.

Eucken's question is, Can we still be Christians? His answer is that we can, and indeed must, but only on condition that Christianity is 'renovated,' i.e., emancipated from the fixed and rigid forms of creed and dogma on which the historical Churches insist, and brought into harmony with the thought and feeling of modern men. This reform of Christianity is, according to him, the task of the present age (p. 236).

The book is written with unmistakable sincerity, and it hardly needed the assurances of the Preface to tell the reader that the problem which Eucken voices with all his eloquence, is one which he has deeply felt within himself. It is the problem of the genuinely religious man who is

both attracted and repelled by Christianity in its present forms. The religious temper of Eucken's philosophy is, of course, obvious from all his writings. And in this book, too, the general need for religion in human life is deduced from the principle that there can be no genuine 'Geistesleben' which has not in it one element of religion (p. 122), a sense of the divine acting within man and lifting him on to a higher plane of life. In turn, all genuine religion is, in its essence, a form of 'Geistesleben' in this sense, and Christianity, like all higher religions, is a 'Geistes-religion' (p. 160). The question, then, is not whether the modern mind does or does not need religion, but whether it can accept Christianity in its traditional forms.

The crucial point, I gather, is for Eucken the Christian doctrine that in Christ, God took on human form and died for the sins of the world (pp. 184 ff.). He pays a tribute to the 'iron logic' with which Christian dogma has developed this central thesis, through the conceptions of sacrifice and atonement, of Christ as the mediator between God and man, of the virgin-birth and the ascension, even of the descent into Hell. In short, the whole second article of the creed is in question. The problem is to distinguish here between 'the permanent content of truth and its transitory formulation' (p. 192). But Eucken explicitly declines to undertake this task. All we can gather is that this second reformation of Christianity for which he calls will discard all miraculous events, and revise the position of Christ. We shall do without the 'anthropomorphic' conception of God's wrath appeased by the blood of His son. Christ will no longer be the only and necessary mediator between man and God. His life will no longer be the one exceptional event in history charged with metaphysical significance, the one entry of God into the world, the single source to us of divine grace and salvation. Christ will still be a most exceptional man, a pre-eminent leader, a religious genius, but he will take his place among the small band of similarly 'creative personalities' (p. 193) to whom we owe the uplift to fresh levels of 'Geistesleben'. The main thing, then, for Eucken is to eliminate the exceptional significance of Christ's life as an historical event, and of Christ's function as the only mediator. Instead, he thinks, 'religious conviction forces us to demand an immediate contact of human and divine throughout the whole breadth of spiritual life' (p. 186), and therefore a direct intercourse between the soul and God, in the spirit of St. Augustine's: 'God and the soul would I know.—Nothing more?—Nothing more' (p. 191).

The Christianity of the future will retain the form of a Church, of a religious community (pp. 136, 137), but Eucken despairs of the possibility of reform from *within* any of the existing Churches, Catholic or Protestant. Apparently, then, we must look to a movement outside the Churches to bring about the reformation which is to give us the Christian Church of the future. Is this perhaps one of the reasons why Eucken appeals specially to Nonconformists?

The strength of Eucken's book is that it puts into eloquent words what many men and women feel who are not irreligious and yet are kept by conscientious objections from joining in the worship of the Churches. Its weakness is that of Eucken's whole philosophy, *viz.*, that he calls for a new form of 'Geistesleben' which he cannot positively define to us. He is at best a forerunner, preparing the way for the coming of the spiritual leader who is to make all things new. At any rate, Eucken himself has shown so far no signs of becoming the Luther of a New Reformation.

Zum gegenwärtigen Stand der Erkenntnistheorie (Zugleich Versuch einer Einteilung der Erkenntnistheorien). By THEODOR ZIEHEN. Wiesbaden: Verlag von J. F. Bergmann, 1914. Pp. 73. Price, M. 2.80.

This pamphlet gives a useful *resumé* of the same author's larger *Erkenntnis Theorie*, which was published last year. He starts from the Dualism of mind and matter, the psychical and the physical, as we find it presupposed by Psychology on the one side and Physical Science on the other. His first point is that this Dualism is unstable. For Physical Science there is an almost irresistible tendency to treat the psychical side as epiphenomenal; for those who begin from the psychical side there is the corresponding tendency to absorb the physical as 'object' or 'content' into the psychical. The burden of the author's criticism of all other epistemological theories is that, in one way or another, they have been wrecked on the rock of this Dualism. His own theory—named elegantly 'Binomismus'—is that the distinction of physical and psychical is neither original nor ultimate. Mind and matter are not two substances of which the world is, in last analysis, made up; nor can either be reduced to the other. Both are, as it were, groupings or orders of something more fundamental, which is neither psychical nor physical, and therefore *neutral*. In this point, then, the theory is, as the author acknowledges (p. 72), monistic. But the neutral *datum* exhibits a twofold structure or order or law—'eine zweifache Gesetzmässigkeit,' hence 'Binomismus'. The one order, of which the principle is 'Kausalgesetzlichkeit,' is that of phenomena in physical nature. The other order, the principle of which the author calls (for reasons which are somewhat obscure) 'Parallelgesetzlichkeit,' is that of phenomena in a psychical context—the grouping which is found in a 'mind,' as Psychology studies it, and which is there dependent on such factors as the state of the sense-organs, the direction of attention, the nexus of associations, etc. But the order of 'matter' and that of 'mind,' whilst differing in their 'law,' are both made up, in last analysis, of the same elements which the author calls 'das Gegebene,' or preferably 'Gignomena'. These 'Gignomena' may be exhaustively classified as Sensations and Ideas ('Empfindungsgignomena' and 'Vorstellungsgignomena'), the latter term to cover judgments and volitions. Feelings are, somewhat cavalierly, asserted to be provided for in this classification through the fact that they are only found attached to these two kinds of gignomena. Reality is held to be identical with the totality of these gignomena, and in thus rejecting a transcendent 'thing-in-itself,' the author declares his view to be both 'immanent' and 'positivist'. Lastly, in that Sensations are held to be prior in time to Ideas, the theory is characterised as 'protæsthetic,' but in that the Ideas do not merely reproduce, but elaborate and interpret, the Sensations the theory is 'transformistic'. The business of 'Erkenntnistheorie' is thus to start from the totality of gignomena, classify them, trace their transformations, and formulate the laws of the groupings and orders which they develop. It is thus co-extensive with Philosophy; it gives us a 'Weltbegriff'.

The task which the author here assigns to 'Erkenntnistheorie,' viz., to give us a Theory of Reality, is obviously identical with that usually assigned to Metaphysics. The author's polemics against Metaphysics are, therefore, beside the point. Moreover, they recoil on his own head. Metaphysicians, he complains, work with arbitrary hypotheses and *a priori* assumptions, whereas he stands on the sound basis of 'fact' and 'experience'. A little self-criticism should have convinced the author that an appeal to fact and experience is only a cloak for the most insidious form of dogmatism. A statement about what is 'given,' is always

a theory, and one that is generally full of hidden and arbitrary assumptions. So in this case. In talking of his 'gignomena,' the author takes for granted at the very start that they form a totality, that they consist only of sensations and ideas, that the latter have their sole source in the former, that time is the form of existence of these gignomena, etc., etc. All these statements are highly debatable, and I know of no 'experience' (as opposed to theory) by appeal to which they could be settled. Again, though the gignomena are supposed to be neutral as regards the distinction of physical and psychical, the very terms 'Empfindung' and 'Vorstellung' inevitably import a psychical character. It would have been well if the author had learned a little more from the logic of some of the metaphysicians whom he criticises.

R. F. ALFRED HOERNLÉ.

Zur Grundlegung einer Lehre von der Erinnerung. Von AUGUST GALLINGER. Halle: Niemeyer, 1914. Pp. iv., 149. Price, 4 marks.

The first of a projected series of investigations into memory in the strict sense, as distinguished from memory in general. The present work is an analysis of the state of consciousness which constitutes remembering, leaving the later numbers to deal with the "kinds, forms and conditions" of the process. It contains much valuable critical matter and as a positive analysis is also notable and is decidedly worth study. The most important part is the last which deals with the act of remembering (*Erinnern*) itself. The writer maintains vigorously the "actuality" view, according to which remembering is a direct occupation of the point of view of the past experience, an act by which we put ourselves directly into our own past (p. 133). With this goes the important remark that we are aware in the present of the past as past, and that to be aware of something *at the present* is not the same thing as to be aware of it *as present* (p. 92). The actuality view is contrasted with the representational view (*Vorstellungsansicht*) which declares that when I remember my past experience this experience is before my mind in idea; and there is good and pertinent criticism of the various shapes which this doctrine assumes, all of them implying that my memory refers to something else which is not directly apprehended. There is useful handling of the recent German literature of the subject. When the writer treats of the object of memory, he insists that the object itself need not be past (e.g. when I remember that I am to go to a meeting this evening, where the object is even future). It is only the experience (*Erlebniss*) which is presented as past. But if the object is stated fully, can the time reference be omitted? I remember reading *Paradise Lost* for the first time at school. The poem is not in the past, but the object remembered includes the circumstances of reading it. The writer of course sees this, but maintains the distinction of the object from the experience of it (*Erlebniss*). But is not this to desert the strictly descriptive point of view? For what was experienced was not the object apart from the circumstances under which it was experienced, but as it was experienced. If I see an object, what I see is how the object looks, not the object as a whole. So when I recall a past experience, that which I experienced, it would seem, must have its past date, though the 'thing' to which it belongs may not be confined to the past.

S. A.

Die Denkfunktion der Verneinung, eine kritische Untersuchung. Von Dr. NICOLAUS PETRESCU. Teubner, 1914. Pp. viii, 81.

Starting with "Function" as the most comprehensive description of thought, the author tries to co-ordinate the various problems in connexion

with negation by working from its different meanings with reference to that function. Thought as functional involves (1) psychological phenomena, (2) logical forms, (3) metaphysical conditions, and the difficulties with regard to negation have arisen from a confusion of these different standpoints. In accordance with these the solutions of the main problem, that of the relation of negation to affirmation, varies. Psychologically, Dr. Petrescu finds that negation is the primitive type of judgment, as can be seen in our attitude to an object that is new to us. Our first conscious act is to set it over against the self, and only secondarily do we identify the two in knowledge. For logic, on the other hand, which the author regards as formal, affirmation and negation are correlative. Sigwart's argument for the primacy of affirmation trenches on metaphysics, while Lotze, who accepts the correlation, by bringing in the question of the validity of the relation between S and P in the two types, goes outside of the limits of logic. The treatment of the metaphysical question is the fullest. Here the priority is assigned to negation, which is found to be dominant in the impulse to speculation, its dialectical procedure, and its resultant valuations. In contrast, the special sciences aim rather at affirming, and are condemned to finitude and externality. (In fact, as we might put it, "All affirmation is privation".) Whereas, with metaphysics the method is itself the result and the object. Negation, then, is a product of *pure* thought, but is not itself a function, not a constructive category. Thus Hegel was wrong in trying to apply the dialectical method of metaphysics to the empirical world. Negation is "ideal," and cannot be equated to any "real" opposition or distinction among objects. There is in this connexion an interesting criticism of the treatment by Kant and by Bergson of the notion of "nothing".

The bearing of this position on the question of Infinity tends to suggest an alternative solution to those which attempt to find for the term a positive signification, *e.g.* the various metaphors and analogies in connexion with the phrase "concrete universal". Why not rather insist on the characteristically negative nature of metaphysical or dialectical thinking? The author's argument, however, is suggestive rather than full. The notion of "function" itself remains vague, and in fact at the one place where its applicability to thought is discussed is dismissed along with "spontaneity" and "activity" in favour of "movement". The only form of judgment considered is the categorical, and that throughout as the connexion or differentiation of two notions. The relevance of this analysis in the psychological argument is not made clear. On the other hand this does no harm in the second section, with its strict view of logic.

W. ANDERSON.

Die Psychologie und ihre zentrale Stellung in der Philosophie, eine Einführung in die wissenschaftliche Philosophie. By JOSEF EISENMEIER. Halle, Max Niemeyer, 1914. Pp. viii, 111.

In spite of a rather dogmatic and over-confident mode of statement, this is a clearly and vigorously written little book. Its contention is that psychology is the central discipline for the whole of philosophy, because "all philosophy is either psychology outright or intimately connected with psychological research," and rests entirely upon it (p. 105). This the author endeavours to prove by examining the philosophic sciences *seriatim*, and by tracing the scientific backwardness of philosophy to its neglect of psychology. Psychology is an empirical science, though it has not yet succeeded in subjecting many psychic facts to experiment; but it must not be separated from philosophy. In consequence of this attitude

towards psychology he repudiates 'disinterested' knowing, denies that a purely theoretic science exists (p. 30), makes their practical application a test of the value of cognitions, and declares that "the much-abused practical interests are the most powerful impulse to research, and its most attractive aim" (p. 29). In short he is brought very near to pragmatism. Nevertheless he departs from it again by not consistently using 'practical' in the wide pragmatic sense in which every object of interest is 'useful,' by uncritically making all 'genuine knowledge' rest on self-evidence, and by taking far too formal a view of logic. That he should not have perceived the need for testing the experience of self-evidence, and inquired how sane and useful is to be discriminated from iusane and harmful 'self-evidence,' is the more curious because he sees quite clearly that the practical application of a principle is a real test of its truth (pp. 90-91).

F. C. S. SCHILLER.

Wissenschaft und Methode. By H. POINCARÉ. Authorised German translation by F. and L. LINDEMANN. Teubner. Pp. vi, 283.

This is an excellent translation of Poincaré's well-known book into German. It appears in the 'Wissenschaft und Hypothese' series, which began with a translation of his *Science et l'Hypothèse*. In some ways this edition is better than the original French one, for it is provided with copious explanatory notes and references to other literature on the subjects treated. The name of F. Lindemann is a guarantee of the accuracy of these notes, so far as they deal with mathematical subjects, as they mostly do.

C. D. B.

Orthopädische Behandlung der Nervenkrankheiten. Von Prof. Dr. K. BIESALSKI, Direktor und leitender Arzt der Berlin-Brandenburgischen Krüppelheil- und Erziehungs-anstalt, mit 162 Figuren im Text. Jena: Verlag von Gustav Fischer, 1914. Pp. 166.

This small volume is a section of a larger text-book of orthopaedics. The author rightly claims that, by bringing together in a single volume all nervous diseases so far as they are capable of orthopaedic treatment, it avoids the specialist's danger of dealing only with symptoms. The volume is essentially a medical treatise; but it has a double interest for the student of mental processes: first, it contains a good summary, with excellent diagrams, of the elements of the nervous system; second, it shows, indirectly, how subtly involved the forms of paralysis are. Even in the peculiar contractures of hysteria and the muscular habits induced by them, various forms of orthopaedic apparatus give good results. Recently we have had such a flood of "mental" methods of treatment that we are apt to forget how much "mind" is embodied in the physical appliances here involved and in the physical methods of treatment. Whether we are "animists" or "parallelists," whether we regard writer's cramp as a mental or a physical condition or both, we have to recognise the curative value of change of pen and altered shape of penholder.

W. L. M.

Grundzüge der Mengenlehre. Von FELIX HAUSDORFF. Leipzig: Veit und Co., 1914. Pp. viii, 476. Price, 18 marks; bound, 20 marks.

The only interest this very able text-book has for philosophers seems to be at the very beginning. Since the book is not historical, we have a

warning that the concept of 'class' (*Menge*), which is so fundamental in all mathematics, is subject to certain difficulties. Zermelo is mentioned with praise as having devised a method for separating legitimate from illegitimate classes. Such methods are not uncommon among mathematicians, and seem to be prompted by a strange fear of philosophy and logic. The case is exactly analogous to the action of a keeper of what he thought was a china shop, when a bull entered it. His practice was simply to deny that that part of the shop where the bull was destroying things was a china shop, and to assert that it was a drapery establishment. Unfortunately it was by no means certain that the bull would confine his attentions to the drapery establishment.

P. E. B. JOURDAIN.

Received also :—

- Bernard Bosanquet, *Three Lectures on Æsthetic*, London, Macmillan, 1915, pp. ix, 118.
- Henry Sturt, *The Principles of Understanding: An Introduction to Logic from the Standpoint of Personal Idealism*, Cambridge, University Press, 1915, pp. xiv, 299.
- Pramathabath Mukhopadhyaya, *The Approaches to Truth* (India, Her Cult and Education Series), Calcutta, P. S. Basu, 1914, pp. iii, 442.
- Psychological Studies from the Psychological Laboratory, Bedford College for Women*, University of London, University of London Press, pp. 161.
- Theodore de Laguna, *Introduction to the Science of Ethics*, New York, Macmillan, 1914, pp. xi, 414.
- Henry Osborn Taylor, *Deliverance, The Freeing of the Spirit in the Ancient World*, London, Macmillan, 1915, pp. vii, 294.
- Thomas Verner Moore, *A Historical Introduction to Ethics*, with an introduction by the Right Rev. Thomas Joseph Shanahan, New York, etc., American Book Company, 1915, pp. xii, 164.
- Eugene Miller, *The Secret of the Universe*, Topeka, Kansas, Crane & Co., 1915, pp. 255.
- R. E. Lloyd, *What is Adaptation?* London, etc., Longmans, Green & Co., 1914, pp. xi, 110.
- James Ward, *Naturalism and Agnosticism, The Gifford Lectures Delivered before the University of Aberdeen in the Years 1896-1898*, Fourth Edition, London, A. & C. Black, 1915, pp. xvi, 623.
- Carveth Read, *Logic, Deductive and Inductive*, Fourth Edition, enlarged and partly rewritten, London, Moring, 1914, pp. xvi, 417.
- Charles Herin Lea, *A Plea for the Thorough and Unbiased Investigation of Christian Science and a Challenge to Its Critics*, Second and Revised Edition, London, Dent, 1915, pp. xiv, 230.
- Modern Philosophers, Lectures Delivered at the University of Copenhagen during the Autumn of 1902, and Lectures on Bergson delivered in 1913*, by Harald Höfding, translated by Alfred C. Mason, Authorised Translation, London, Macmillan, 1915, pp. xii, 317.
- Benedetto Croce, *What Is Living and What Is Dead of the Philosophy of Hegel*, Translated from the Original Text of the Third Italian Edition, 1912, by Douglas Ainslie, London, Macmillan, 1915, pp. xviii, 217.
- Frau Förster Nietzsche, *The Lonely Nietzsche*, Translated by Paul V. Cohn, Illustrated, London, Heinemann, 1915, pp. xii, 415.
- Lello Vivante, *La Spontaneità del Pensiero Teoretico*, Roma, Ermanno Loescher & Co., 1915, pp. 46.
- Giovanni Gentile, *Studi Vichiani*, Messina, Giuseppe Principato, 1915, pp. 458.

VIII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xxiii., No. 6. **V. Delbos.** 'French Works on the History of Philosophy from 1909 to 1913.' [After noting certain works on the history of science (Tannery, Milhaud, Duhem) the writer passes to those on ancient, mediæval and modern philosophy: Brochard's collected papers, Sertillanges on Thomas Aquinas, Adam on Descartes, Blum on Hamann, etc.] **Ö. Ewald.** 'German Philosophy in 1913.' [Interest centres on the relations of logic, psychology, phenomenology: Hönigswald, Driesch, Münch, Husserl, Oesterreich, Natorp are reviewed.] **E. B. Talbot.** 'The Time-process and the Value of Human Life,' I. [In estimating the value of a human life (by pleasure-pain, moral worth, intellectual or æsthetic activity) we assign far greater importance to present and future than to past stages.] **G. W. Cunningham.** 'Bergson's Conception of Finality.' [Bergson's alternative of teleological finalism and creative evolution rests on the separation of intellect and will. Give that up, and a creative finalism is possible, in which the creation of the ends that operate in directing and controlling the evolutionary process is a part of the process itself.] **Reviews of Books. Notices of New Books. Summaries of Articles. Notes.** Vol. xxiv., No. 1. **H. W. Carr.** 'The Metaphysical Implications of the Principle of Relativity.' [There must be something absolute; and if this is not space and time, or any physically real entity fixed in relation thereto, continuity must lie in a spiritual principle.] **E. B. Talbot.** 'The Time-process and the Value of Human Life,' II. [To justify the belief in the compensatory function of the later stages of human life we must assume the reality of change, as characterising that life, in the sense that the later is what it has become, that it holds the earlier in solution.] **H. E. Bliss.** 'On Relations.' [Most relations are real, though some are ideal. They differ in reality, as in being, from entities and from ideas: from entities, in that they are not existent; from ideas, in that they are real, or if ideal are but constitutive of (or attributive to) ideal complexes.] **C. Becker.** 'The Dilemma of Diderot.' [The Diderot of 1765 and later was at once the speculative philosopher, unable to ignore reason, and the emotional preacher of morality, unable to renounce his belief that good action is a virtue.] **Reviews of Books. Notices of New Books. Summaries of Articles. Notes.**

PSYCHOLOGICAL REVIEW. Vol. xxi., No. 6. **C. A. Ruckmich.** 'A Schema of Method.' [Method, as general mode of investigation, should be distinguished from procedure, point of view, and rational principle.] **E. L. Thorndike.** 'Fatigue in a Complex Function.' [Continuous exercise increases gross efficiency, decreases interest; a rest means a very slight gain in efficiency, but a very great gain in interest.] **J. E. Downey.** 'On the Reading and Writing of Mirror-script.' [A preliminary report. Spontaneous mirror-writing seems to be conditioned on

a general difficulty of orientation; capacity to interpret mirror-reversals may be due to visual as against motor preoccupation; efficiency of mirror-reading is apparently correlated with degree of right-handedness.] **G. C. Myers.** 'A Comparative Study of Recognition and Recall.' [Tests with words. Efficiency of recognition is about two and a half times that of recall; the correlation of the two is surprisingly low; the effective element is far more marked in recognition.] **A. Wyczolkowska.** 'The Automatic Writing of Children from Two to Six Years, indicative of Organic Derivation of Writing in General.' [Distinguishes and illustrates five stages from chaotic 'scribbling' up to imitation of the writing of adults. Automatic writing (especially the power to produce the continuous curve) may be the organic basis from which cultural writing has evolved.] **H. L. Hollingworth.** 'Variations in Efficiency during the Working Day.' [Motor processes gain, mental lose, as the day proceeds; possibly the former grow cumulatively more vigorous and inhibit the latter; the mechanism of work is definitely affected by drugs.] Discussion. **H. S. Langfeld.** 'The Inhibitory Factor in Voluntary Movement.' [Reply to Dearborn.]

AMERICAN JOURNAL OF PSYCHOLOGY. Vol. xxv., No. 4. **R. MacDougall.** 'The Distribution of Consciousness and Its Criteria.' [Points out, after discussing the proposed 'criteria' of consciousness, that the comparative psychologist is concerned not with consciousness as such, as unity of functioning, but solely with particular functions (memory, reasoning, etc.), whose presence and status must be determined in every case by all available evidence.] **L. T. Troland.** 'Adaptation and the Chemical Theory of Sensory Response.' [Assumes, against Hering, that stimulation can directly affect catabolism alone; uses adaptation as the touchstone of a chemical mechanism of sensation.] **R. A. Tsanoff.** 'On the Psychology of Poetic Construction: an Experimental Method.' [Proposes to use the first manuscript drafts of poems as materials for the study of constructive imagination.] **S. W. Fernberger.** 'The Effect of the Attitude of the Subject upon the Measure of Sensitivity.' [Experiments with lifted weights, under different instructions, prove the influence on the results of the observer's attitude.] **S. C. Kohs.** 'The Association Method in Its Relation to the Complex and Complex Indicators.' [Traces the development of experiments on association; stresses the practical importance of complex and constellation; gives a full list of the complex indicators.] Book Notes. **E. B. Titchener** and **W. S. Foster.** 'A Bibliography of the Scientific Writings of Wilhelm Wundt.' [Sixth list.] Index. Vol. xxvi., No. 1. **E. G. Boring.** 'The Sensations of the Alimentary Canal.' [The oesophagus is sensitive to warmth, cold, pressure and pain; the sensations are in general referred either to the region below the sternum or to the throat. The stomach is sensitive to dull pressure and pain; cold and warmth probably come from the superficial tissues; localisation of electric shocks within the stomach is more accurate than within the oesophagus. The anus is sensitive, the rectum probably insensitive, to warm and cold; both are sensitive to pressure and pain.] **F. L. Wells.** 'A Note on the Retention of Acquired Capacities.' [Decrease of functional efficiency with time is better measured by delayed response than by loss of response. Experiments with tapping and with addition and cancellation of digits show that tendency to loss is more generalised than ability to acquire.] **J. N. Curtis.** 'On Psychology as Science of Selves.' [Critique of Calkins.] **A. S. Edwards.** 'An Experimental Study of Sensory Suggest-

tion.' [In sight, smell, taste and temperaturo (probably in hearing and touch) a verbal suggestion may arouse conscious processes that are, phenomenologically, identical with those ordinarily aroused by adequate stimulus or change of stimulus.] **O. Pfister.** 'Psycho-analysis and the Study of Children and Youth.' [Distinguishes a retention type, which magnifies the present by association from the past, and a repulsion type, which is thrown back by a trying present into the infantile past.] **E. B. Titchener** and **H. P. Weld.** 'Minor Studies from the Psychological Laboratory of Cornell University.' **F. L. Dimmick.** 'xx. On the Localisation of Pure Warmth Sensations.' [There are noticeable tendencies of direction; certain areas are preferred; the error is very large.] **L. G. Meads.** 'xxi. Form *vs.* Intensity as a Determinant of Attention.' [A light-form of low intensity may attract as powerfully as a formless light of high intensity.] **E. J. Gates.** "xxii. The Determination of the Limens of Single and Dual Impression by the Method of Constant Stimuli.' [Repeats and extends Riecker's experiment; treats results by Urban's method.] Book Notes. 'Theodor Lipps.'

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS. xi., 17. **G. Santayana.** 'The Coming Philosophy.' [A very brilliant criticism of the New Realism (*sp.* American) *à propos* of Holt's *Concept of Consciousness*, which describes it as "a fusion of transcendentalism, pragmatism, immediatism and logical realism, perplexed by confused thinking, half-meant random assertions, undigested traditions, uncouth diction, and words turned from their right use. Never was a group of thinkers so sophisticated and so ill-educated; Greek sophistry was perverse, but it was skilful; mediæval scholastic language was barbarous, but it was plain." Such plain speaking has not been heard in the land since James held up Papini as a stylistic model to be imitated by 'the bald-headed and bald-hearted young aspirants to the Ph.D.' in the same JOURNAL; but towards the end Prof. Santayana, remembering no doubt his Harvardian collegiality, relents perceptibly and confesses that the New Realism is not unsuited to the age. Unfortunately he does not think highly of the age.] **E. H. Hollands.** 'The Externality of Relations.' [Concludes that this depends on whether there are unilateral relations or all relations are bilateral as natural science insists.] xi., 18. **H. B. Reed.** 'Ideo-Motor Action.' [After a review of the relevant experimental evidence it is concluded that "the work and function of ideas is to analyse stimuli to which conduct responds". This explains "why an idea of a movement does not produce it; why imitation, the teaching of animals and children how to do certain acts by acting the part before them . . . are usually ineffective. They fail to point out the proper stimuli to which the desired acts are a response."] **J. F. Dashiell.** 'Values and Experience.' ["The world as experienced is a world of appreciative qualities, of *value* aspects . . . not of facts, but of meanings . . . goods, uglies, bads, magnificents, wrongs, beautifuls, uprightness . . . experiencedness = meaningfulness. This amounts to the statement that the philosophy of pure or immediate experience implies and presupposes a *value*-philosophy . . . value is primary in all senses of the word in any human experience, and it is therefore a primary category in any construction of the world on the basis of experience." Nevertheless it is later analysable into an organic or 'subjective' and an extra-organic or 'objective' element; for all that "a *value* still remains a *fact* as unique and primary and important as ever".] This number contains also an expert review of *Principia Mathematica*, vol. ii., by C. I. Lewis. xi. 19. **J. Dewey.** 'Psychological Doctrine and Philosophical Think-

ing.' [Points out that *de facto* "the larger part of the time and energy of teachers of philosophy is taken up in the discussion of problems which owe their existence to the influence of psychology". Yet in its methods and conceptions our psychology is a survival of the philosophy of Descartes and Locke and not a natural product of scientific inquiry. Even 'behaviorism' shows this taint, and does not start from "human nature as it concretely exists and human life as it is actually lived".] **N. Wiener.** 'The Highest Good.' [None exists or is needed, because 'objective morality' is only the end-product of conflicts between the feelings of each individual and between the private consciences of individuals in society. Hence both the social conscience and the objective good are not fixed but mutable, being biologically controlled instinctive endowments. This ensures a general likeness between moral standards, but nevertheless "two races may come into a war in which each is from its own standpoint absolutely right and from that of the other absolutely wrong".] **W. B. Pitkin.** 'Time and Pure Activity.' [Criticizes Wells's *Time-Machine* in order to show that the time order is an integral aspect of the physical order and cannot be conceived in abstraction from it.] xi., 20. **H. A. Overstreet.** 'The Function and Scope of Social Philosophy.' [= the critique or evaluation of social categories.] **J. E. Downey.** 'Judgments on Handwriting, Similarity and Difference.' [An experimental paper bearing on a dispute (with H. L. Hollingworth) as to which of these is perceived more easily.] xi., 21. **N. Wiener.** 'Relativism.' [Means that "no experience is 'self-sufficient,' that no knowledge is absolutely certain, and that no knowledge is merely derived," and is "closely related on the face of it to two great tendencies in modern philosophy, pragmatism and the metaphysics of Bergson," as being anti-intellectualistic and "a protest against mere formalism in metaphysics". The article contains some effective criticism of realism and absolutism, but is not very successful in differentiating 'relativism' from pragmatism.] **E. F. Mulhall.** 'Experiments in Judgment.' [Pointing to the conclusions that (1) there is no such thing as general judicial capacity and (2) individuals who are consistent in one situation are not necessarily equally consistent in judging another situation, (3) judicial capacity and personal consistency vary with the objectivity of the judgments.] xi., 22. **C. I. Lewis.** 'The Matrix Algebra for Implications.' [Gives the assumptions of a new and more comprehensive system of symbolic logic, in which are included "the system of material implication, the system of strict implication and a calculus of consistencies."] **H. G. Hartmann.** 'Are Realism and Relativity Incompatible?' [Answers negatively because relativity must empirically recognise a variety of limits.] xi., 23. **M. R. Cohen.** 'Qualities, Relations, Things.' [Reply to Lovejoy, xi., 16.] **W. P. Montague.** 'Prof. Thorndike's Attack on the Ideo-Motor Theory.' [In the *Psychological Review* for March, 1913.] **L. W. Kline.** 'An Experimental Study for Classes in Reasoning and its Transference.' [Adapted to teaching beginners.] xi., 24. **E. A. Singer.** 'The Pulse of Life.' [After stating his (pragmatic) principle of method as "that to assert the existence or non-existence of anything is meaningless unless we can verify the assertion, but experience is the only means of verifying assertions, and behaviour is the only aspect of the beings we call living or conscious which is matter of experience. Hence in our empirical reasons for calling one thing alive, another not, one thing conscious, another not, must lie the meaning of life and mind," the author develops his theory of life as something which while not contravening the ideal of mechanism is yet only definable in terms of purpose. He suggests that "through a medium of mechanism, all of whose points are determined, a

pulse of life may pass freely" and "purpose-drawn," like a wave-motion in a liquid.] **H. G. Hartmann.** 'A Definition of Causation: A Reply to Prof. Sheldon.' [Cf. xi., 8, 10, 12, 14.] xi., 25. **A. H. Lloyd.** 'The Power Behind the Throne.' [= 'Nature.' Visible authority having been so thoroughly discredited, a time of 'Creation' must be at hand.] **G. A. Feingold.** 'The Psychophysical Basis of Moral Conduct.' ["Human conduct is not as ideational nor intuitive as it appears, but is rather the expression of numerous instincts and emotions without any other moral quality than that which attaches to them *a posteriori* according as they do or do not relieve conscious tension."] **J. P. Turner.** 'Philosophy and Social Attitudes.' [Belief in progress is modern and contrasts with the ancient sense of man's helplessness. In metaphysics 'eternalism' expresses the old attitude, 'temporalism' the new. But we believe 'that progress is *possible* not *certain*."] xi., 26. **M. R. Cohen.** 'History versus Value.' [Against the idea that the meaning of a thing can be exhaustively stated by narrating its history. The historian has always to select and to supplement his data and both these processes involve valuations. Actually "history remains a branch of apologetics, an attempt to justify the powers that have been victorious". But "the doctrine that right always triumphs is but an insidious form of the immoral doctrine that what triumphs (i.e. might) is always right". Hence "historicism, like its sister materialism, while professing empiricism, is really the offspring of vicious rationalism". It attempts "to banish real possibilities from the world" and is "obsessed with the dogma that only the factual can have true being".]

ZEITSCHRIFT FÜR PSYCHOLOGIE. Bd. lxx., Heft 3 und 4. **H. W. Meyer.** 'Bereitschaft und Wiedererkennen.' [Experiments with meaningless syllables. Simple recognition (like reproduction) is favoured by preparation (*Bereitschaft*); the effect of preparation is unexpectedly persistent; its decay in time may be studied by the method of recognition. The quality of unfamiliarity seems to be rather negative (absence of familiarity) than positive. Under certain circumstances, simple recognition may serve as criterion of correctness.] **L. J. Martin.** 'Ueber die Abhängigkeit visueller Vorstellungsbilder vom Denken: eine experimentelle Untersuchung.' [Experiments with puzzle-pictures, visual forms, groups of dots, etc. The visual image is not informative; its office is to sustain attention, to illustrate and reinforce imageless thought, to warn of incompleteness, etc.; sometimes it hinders speed of thinking. In general it is dependent upon (secondary to) imageless thought, which it more or less adequately expresses; it may thus help us to a knowledge of the laws of thought.] Literaturbericht. Preisaufgabe der kgl. preuss. Akad. der Wissenschaft.

"SCIENTIA." RIVISTA DI SCIENZA. Vol. xv., No. 1. Jan., 1914. Beginning with this number, *Scientia* is printed on better quality and lighter paper, and the edges are cut. The number of pages remains the same. **H. H. Turner.** 'The periodicities of Sun-Spots (A Reply to Mr. E. W. Maunder).' [In *Scientia* for January, 1913, E. W. Maunder stated his view that 'the sun-spot period is essentially one: there are no sub-periods: there are no multiple periods . . .'. The author criticises Maunder's use of the term 'periodicity'.] **M. Abraham.** 'Die neue Mechanik.' [The principles of the old mechanics of Galileo and Newton allow us to describe the motions of masses under the influence of their mutual gravitation, but do not suffice when the forces of electricity and magnetism, of light and of

heat come into play; and the *Principles of Mechanics* of Hertz closes the phase of evolution which wished to bring the whole of physics under the old mechanics. The existence of the pressure of light is proved theoretically and experimentally, but is contrary to the third law of Newton: the traditional principle of reaction is incompatible with a finite velocity of propagation of forces, and we must take into consideration the fact that force, like energy, remains latent during a certain time. Again, for the velocities of electrons, Newton's second law (that the acceleration of a particle is equal to the acting force divided by a mass proper to the particle and independent of its velocity) does not hold, as was shown by Kaufmann's experiment of 1901: in fact, the mass increases with the velocity. Yet certain principles of mechanics (Lagrange's equations and the principle of least action) keep their value in the new mechanics when we generalise the expression of Lagrange's function and of action. The question as to how it is that optical experiments with light from terrestrial sources do not show any influence arising from the earth's motion (Michelson) was examined by Lorentz (1892-1904) and resulted in the notion of 'local time' and the 'hypothesis of contraction,'—the latter being independently due to Fitzgerald, and made plausible by Lorentz. To be distinguished from this theory of the field is the theory of relativity set up by Einstein in 1905, which decided that the traditional ideas of geometry and kinematics have not a signification. This theory is founded on two postulates: (1) the equivalence of systems having a uniform motion of translation with respect to one another; (2) the propagation of light in space is effected with the same velocity in all directions. This theory, which was developed mathematically by Minkowski in 1908, was, for the most part, regarded with scepticism by physicists whose philosophy was formed under the influence of Mach and Kirchhoff. There is a very useful comparison of the theory of relativity with the theory of Lorentz. The crisis of the theory of relativity began when this theory undertook to make gravity enter into the domain of its considerations, and both in Einstein's theory of 1905 and in that of 1913 gravity is an unsurmountable obstacle. Still, the theory has an honourable place in the history of the criticism of the conceptions of space and time; and, whatever the fate of the theory of relativity, the new mechanics will continue to develop and keep mechanics in touch with the other disciplines of physics.] A. Righi. 'La natura dei raggi X.' [A succinct account of recent results and conclusions as to the nature of the X-rays. They seem most probably to be of the same nature as the rays of light, and thus to be a manifestation of electromagnetic waves in the ether.] M. Hartog. 'Samuel Butler and Recent Mnemic Biological Theories.' [The main thesis of Butler's *Life and Habit* (1877) had been anticipated by Hering in 1870 (*Memory, etc.*, Eng. trans., 4th ed., Chicago and London, 1913), and Butler, when he got to know this, wrote *Unconscious Memory* (1880, 1910). Butler took memory in his *Life and Habit* as an ultimate fact, and dwelt rather on the way of its behaviour than on the actual mechanism underlying it, very much as Semon has done. Hering, as a physiologist, suggested an explanation in terms of vibrations, which appears to have fascinated Butler; for in his notes he developed and extended it into a form which closely recalls Rignano's working out in his *Centro-epigenesis*. The conclusion of Butler's *Luck or Cunning* shows a strong advance in monistic views, and a yet more marked development in the vibration hypothesis of memory given by Hering and adopted in *Unconscious Memory*, associating it with speculations on the origin of chemical differences in connexion with the conceptions

of Newlands and Mendeléjeff. The teaching of *Life and Habit* has been summarised in *Unconscious Memory* in four main principles: (1) The oneness of personality between parent and offspring; (2) Memory on the part of the offspring of actions which it did when in the persons of its forefathers; (3) The latency of that memory until it is rekindled by a recurrence of the associated ideas; (4) The unconsciousness with which habitual actions come to be performed. To these the author adds, (5) The purposive character of the actions of living beings, as of the machines which they make or select. In the *Notebooks* we find a different statement, with more practical detail. Butler popularised the teaching of Hering before its existence was known to him, anticipated Semon in his detailed comparison of memory with heredity, and, from a small suggestion of Hering's, planned out a physical explanation of memory in terms of vibrations, which was destined after his death to be more fully elaborated by Rignano (*The Inheritance of Acquired Characters*, Eng. trans., Chicago and London, 1911.) **Ph. Sagnac.** 'L'esprit et les progrès de la Révolution française. 1^{ère} Partie: Les origines de la Révolution.' [The revolution was slowly born from the social and political regimen which Richelieu and Louis XIV. established and Louis XV. and Louis XVI. maintained and aggravated. The prestige of Royalty, the Church, and the Nobility had decreased, philosophy had helped to form public spirit, and the science of the time had helped to destroy the credit of the sacred books. A brilliant edifice, centuries old, was undermined, and there was the irresistible force of almost the whole of a suffering nation which was conscious of its rights.] **Ch. Guignebert.** 'Le dogme de la Trinité. 2^{ème} Partie: L'évolution des deux triades et les premiers conflits.' [Examines how the life of faith and the progress of theology strengthened and complicated the two primitive triads, eastern and western, and then how the inevitable conflict between the two conceptions came to pass.] Critical Note: **R. Maunier.** 'L'art égyptien comme expression de la société égyptienne.' [On the subject of recent books by W. Flinders Petrie and G. Maspero.] Book Reviews. General Reviews: **M. Gortani.** 'Progrès récents de la géodynamique intérieure.' **G. Bourgin.** 'L'évolution des villes.' Review of Reviews. Chronicle. Supplement containing French translations of the English, German, and French articles. A very interesting number. Vol. xv., No. 2. March, 1914. **T. J. J. See.** 'The Law of Nature in Celestial Evolution.' [We have found the fundamental law of sidereal evolution by first approaching and studying the most complex systems (the star-clusters); and, after making out the true secret of their formation, have generalised the law deduced from this study by the examination of sidereal systems of lower order. False premisses misled Laplace, Sir John Herschel, Lord Kelvin, Newcomb, Sir George Darwin, and Poincaré. The true path was opened up by Sir William Herschel, the first modern astronomer to give serious thought to the origin of clusters, in a series of papers published in the *Philosophical Transactions* from 1784 to 1818, and now accessible in Herschel's *Collected Works* (London, 1912). The neglect of Herschel's conceptions of cosmogony was due to the greater accessibility of Laplace's writings. The modern "capture theory" of stars under the clustering power of universal gravitation (See) and consequent development of sidereal systems is essentially an extension of the views of Herschel. The process of capture also leads to the arrangement of the internal structure of a nebula in concentric shells of uniform brightness. The light of the nebulae is due chiefly to luminescence at low temperature, as by electric discharges in high vacua. There are many quotations from the papers of W. Herschel, and the other chief authorities in cosmogony are also briefly cited. The Herschel-See theory

applies equally to sidereal systems of all types. 'This quality of universality assures us the fundamental law of sidereal evolution, and alone makes possible the development of cosmogony as a new science of the stars, applicable, with unbroken continuity, to the entire sidereal universe.'] **C. Acqua.** 'Esistono fenomeni psicologici nei vegetali?' [Quite lately, phenomena of reaction have been discovered, which are very perceptible and almost general for many agents of the outer world: a mechanism for receiving excitations, a transport of the excitation along plasmatic filaments of communication, which may represent physiologically—although they are not differentiated from the morphological point of view—the nervous fibres of animals. The reply to the question put in the title 'depends on the extension which may be given to the psychological conception. The problem is equally proposed for plants and for lower animals which are situated at the end of the zoological scale. The hypothesis that even in these animals we must meet a psychological principle appears to be probable; 'but a decisive answer is not, and perhaps never will be, possible, since we would by such an answer penetrate into a part of that unknowable where the experimental method loses its efficacy and where the human mind has to confess its impotence.'] **É. Durkheim.** 'Le dualisme de la nature humaine et ses conditions sociales.' [It is only by historical analysis that we can give an account of how man was formed, 'for it was only in the course of history that he was formed'. The author's work on *Formes élémentaires de la vie religieuse* (Paris, 1912) illustrates this general truth by an example. When seeking to study sociologically religious phenomena, the author was led to the attempt to explain scientifically one of the most characteristic particularities of our nature. The principle on which this explanation rests was not perceived by critics, and the present article is a summary exposition of it.] **S. Langdon.** 'Babylonian Magic.' [An abstract analysis of the principles and categories of Sumero-Babylonian magic. The Babylonians supposed that in their bodies dwell divine spirits, and that these are in league with the great gods of heaven and earth, keeping man in favour with these gods. We may infer that no individual, unless he were a king, supposed that one of the great gods condescended to act as his personal deity. In the most ancient period the conception of *tabu* appears to have been extremely concrete. Opposed to the host of gods occupying finely differentiated positions in a vast pantheon, are the evil spirits, clearly personified concepts, remnants of ancient animal worship or evil souls of the dead. After the first dynasty, more ethical and abstract conceptions began to appear. The second development in the history of Babylonian magic appears to have been witchcraft or the power of banning an individual by ventriloquy, mystic movements, and sympathetic operations. We have no material which enables us to discover how the Babylonians supposed that human beings shared the functions of the ancient demons. When witchcraft appears, we have still the same conception concerning the man. The wizards attack the protecting gods also. But the method has become not a physical struggle between an unseen demon and an unseen deity for the possession of the soul and body of man, but a struggle between a human wizard and the protecting deity. And the struggle now is no longer a direct contest of the spirits but an attempt to control the indwelling deity by the black art. The article concludes with a few typical examples of both negative and positive magic chosen exclusively from the late period.] **W. Sombart.** 'Liebe, Luxus und Kapitalismus.' [Does not propose to analyse the relations which exist between wealth, liberty of the amorous life, desire of certain groups of the population to be esteemed by others, and life in the large towns, on the one hand, and the apparition of luxury, on

the other. Setting out from the fact that, since the beginning of the middle ages, a great luxury ruled, and attained, towards the end of the eighteenth century, great proportions, the author tries to find its explanation. A quantitative representation of the development of luxury is, as far as possible, given. Investigation of the relations which exist between the development of luxury and certain other social factors; in particular of the part which is due to woman, above all to woman in so far as she is the object of an illegitimate love (the *Weibchen*), in the evolution of the outer life of our epoch.] Book Reviews. General Reviews: F. W. Henkel. 'Nébuleuses et essais.' A. Kronfeld. 'Nouveaux problèmes de la psychiatrie en Allemagne.' Review of Reviews. Chronicle. Supplement containing French translations of the English, German, and Italian articles. Vol. xv., No. 3. May, 1914. A. Einstein. 'Zum Relativitätsproblem.' [A continuation of the discussion of the principle of relativity. Brillouin and Abraham have criticised, in *Scientia*, the theory: Einstein here gives his views as a partisan of the theory. The theory of relativity "in the narrow sense" is generally admitted at the present time. If the Newtonian equations hold with respect to a system of co-ordinates K, they also hold with respect to any other system moving with a uniform motion of translation with respect to K. The "principle of relativity in the narrow sense" is the hypothesis of the equivalence of all the systems referred to for the formulation of the laws of motion and the general laws of physics. This principle is as old as mechanics itself, and, from the point of view of experience, nobody could ever doubt its validity. If it has been and is still doubted, it is because the electrodynamics of Maxwell and Lorentz seems to be inconsistent with it. Suppose that the electrodynamical equations hold with respect to the system K; then every luminous ray is propagated in the vacuum relatively to K with a determined velocity c which is independent of the direction of propagation and of the state of motion of the luminous source. This deduction does not seem to be valid relatively to a system of moving co-ordinates. An exact analysis of the physical content of our spatial and temporal data has proved that the contradiction referred to rests on the two following arbitrary hypotheses: (1) The assertion that two events which take place in different places are simultaneous is independent of the choice of the system of reference; (2) The distance between the places where two events take place simultaneously is independent of the choice of the system of reference. When we give up these arbitrary hypotheses, the principle of constancy of the velocity of light, which results from Maxwell's and Lorentz's theory, becomes compatible with the principle of relativity. The hypothesis that one and the same ray is propagated with the velocity c with respect to all those systems with uniform motions of translation leads to what is known as "Lorentz's transformation". As for the theories of gravitation mentioned by Abraham, that of Nordström agrees both with the principle of relativity and with the condition of the weight of the energy of isolated systems. Abraham has wrongly asserted the contrary. The second part of the article is devoted to "the principle of relativity in the wide sense," and gives an account of Einstein's later work. The theory of relativity in the wide sense does not lead to the abandonment of the former theory of relativity, but is a development of this theory, which seems necessary if we put ourselves at the philosophical point of view described by Einstein.] S. Arrhenius. 'Das Milchstrassenproblem.' [On the problem of the formation of the Milky Way.] F. Bottazzi. 'Le attività fisiologiche fondamentali. Primo articolo: L'attività nervosa e i processi elementari su cui si fonda.' J. A. Thomson. (Sex-Characters.) [A critical estimate of the masterly work of Kammerer who has gathered together

recent experimental data on the origin, evolution, and development of sex-characters.] **A. Meillet.** 'Le Problème de la parenté des langues. [Deals with the principle of the genealogical classification of languages, and shows in what measure such a classification is actually possible and useful, and what we can hope from it.] **R. Michels.** 'Economia e politica.' Critical Note. **A. Mieli.** 'Les précurseurs de Galileo.' [An account of Pierre Duhem's researches on the origin of Galilean dynamics in the Middle Ages. 'Jean Buridan, who was rector of the Paris University from 1327 to 1347, clearly established the concept which science only gathered definitely with Leibniz, and which is called to-day "the concept of *vis viva*". He seems to have had an idea of the nature of an "impetus" as a product of velocity, volume, and density. By this the acceleration of falling bodies was explained. Buridan also applied to the heavens the dynamics established for terrestrial motions. Other men dealt with in Duhem's work are Nicole Oresme, who anticipated Copernicus, and Albert de Saxe, who anticipated a well-known mistake of Galileo's. A further note will examine the researches of Emil Rüd, who has investigated the character of the doctrines of Galileo, Descartes and Newton.] Book Reviews. General Reviews. **L. Suali.** 'L'histoire de la philosophie de l'Inde.' Review of Reviews. Chronicle. Supplement containing French translations of the English, German, and Italian articles.

IX.—NOTES.

OCCAM'S RAZOR.

1. NEARLY every modern book on Logic contains the words: *Entia non sunt multiplicanda, præter necessitatem*: quoted as if they were the words of William of Ockham. But nobody gives a particular reference to any work of the *Venerabilis Inceptor*: not even Sir William Hamiltou, *facile princeps* (among English writers) in philosophical learning. My own fruitless inquisition for the formula, in those works of Ockham which have been printed, has led me to doubt whether he ever used it to express his Critique of Entities. This doubt is further justified by what I find, and cannot find, in laborious histories of mediæval philosophy. Haureau (in his *Philosophie Scholastique*, chap. xxviii.), Erdmann (in his *History of Philosophy*, I. s. 216), and De Wulf (in his *Mediaeval Philosophy*, s. 368), concur in giving another set of words, as those usually employed by Ockham: *Non est ponenda pluralitas* (or *Pluralitas non est ponenda*) *sine necessitate*. They do not even mention the common form of the *Novaculum Nominalium*. Nor does Prantl, in his large collection of citations: *Geschichte der Logik*, III., pages 327-420. But one of them (Note 758) contains: *Nunquam ponenda est pluralitas sine necessitate*.

2. The earliest use of the popular phrase, which I have lighted upon, occurs in an Inaugural Dissertation by Leibnitz in 1670, when he was only twenty-four: *De Stylo Philosophico Marii Nizolii*, s. 28 (*De Secta Nominalium*). He does not however profess to quote, but says in *oratio obliqua*: "Generalis autem Regula est, qua Nominales passim utuntur, Entia non esse multiplicanda præter necessitatem". The words do not appear in the only philosophical work of Mario Nizzoli: *De veris principijs et vera ratione philosophandi*: published at Parma in 1553. Another edition was published at Frankfurt in 1674, under the new title *Anti-barbarus Philosophicus*; with the Dissertation by Leibnitz prefixed as an Introduction. In Hurter's *Nomenclator* (iii., 8), Nizolius is described as "Philosophiæ scholasticæ acer adversarius, Occami Nominalismi assecla". But he is better known through the many editions of his Ciceronian Concordance (*Thesaurus C.*). Whether the formula was again used by Leibnitz in his later works, I cannot say. But it might easily become current, if used in the lectures, or even the conversation, of a philosopher who became so widely influential in Europe.

3. Still, it is quite possible that Ockham did use the words somewhere, or that they were put together by one of his earlier disciples: e.g. John Buridan, Peter D'Ailly or Gabriel Biel. And, if any reader of MIND can give an exact reference, more than one of his fellow-readers will be grateful. I shall be particularly thankful, if directly informed beforehand. There is also a mystery about the origin of the phrase *Novaculum Nominalium*, which Ducange's Glossary ignores. And what Englishman first translated it into *Occam's Razor*?

4. Some students of Logic, to whom Ockham's rare works are not

readily accessible, may be glad to have at hand a short list of his various ways of expressing or indicating the Law of Parimony.

(1) "Pluralitas non est ponenda sine necessitate." *Quodlibeta*, V., Q. 5 (lines 3 and 4); and I., Q. 3; III., Q. 2; IV., Q. 15. Also, *In Sententias* (P. Lomb.), I., *Dist.* 1. QQ. 1 and 2; and D. 7, Q. 2. See Erdmann, I., page 513; and De Wulf, page 418.

(2) "Non est ponenda pluralitas sine necessitate." *In Sentt.*, II., Q. 15 (second col.). See Haureau, II., pages 438, 442, 466.

(3) "Nunquam ponenda est pluralitas sine necessitate." *In Sentt.*, I., D. 27, Q. 2 (section K, not J as given by Prantl in his Note 758). The matter discussed is *Species Intelligibilis*.

(4) "Talis species non est ponenda propter superfluitatem." *Expositio Aurea: Perierm., Proem.* Prantl, N. 757.

(5) "Si duae res sufficiunt ad ejus veritatem, superfluum est ponere aliam (tertiam) rem." *Quodlibeta*, IV., Q. 19; (Prantl, N 768). *Ibid.* IV., Q. 24 (Haureau, II., 459).

(6) "Frustra fit per plura, quod potest fieri per pauciora." *Summa Tot. Log., Pars. I, cap. 12, f. 6, r. A*: (referring to *Intentio prima, secunda*). See Prantl, N. 768. Also, *In Sentt.*, II., Q. 15, sections O and Q; (referring to *Species Intelligibilis*). See Prantl, N. 759; Haureau, II., page 443; and De Wulf, page 424.

(7) "Sufficiunt singularia, et ita tales *res universales* omnino frustra ponuntur." *In Sentt.*, I., D. 2, Q. 4 (top of column 18).

W. M. THORBURN.

MIND ASSOCIATION.

THE Annual Meeting of the Mind Association will be held at University College, London, on Saturday, 3rd July, at 6 p.m. There will be a joint dinner of the members of the Association and the Aristotelian Society at 7, followed by a paper on "Mr. Bertrand Russell's Theory of Judgment" by Prof. G. F. Stout.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY



I.—ALEXANDER CAMPBELL FRASER.

1819-1914.

BY PROF. PRINGLE-PATTISON.

THE death of Professor Campbell Fraser in his ninety-sixth year severs the last link which connected our British philosophy of to-day with its own origins in the thirties and forties of the preceding century—with Hamilton's attack on the Philosophy of the Unconditioned, Mill's early essays and the first edition of the *Logic*, and the trenchant idealism of Ferrier. Within the spacious limits of his life Fraser saw the rise and decline of Hamilton's influence, and watched the older English empiricism of Mill take on the larger outlines of Spencerian evolutionism; he had already been teaching philosophy for twenty years when the first writings of Stirling, Green, and Caird heralded the wave of Kantio-Hegelian idealism that swept over our universities in the second half of the nineteenth century; and after the floodtide of that movement in the nineties, the most recent phases of contemporary thought—pragmatism, realism, Bergsonism—still found him an interested reader and critic. Through all these changes of speculative atmosphere and philosophical idiom he held on his own way, taking little part as an active partisan in the more technical controversies of the schools, but pondering unceasingly the central mysteries of our being and communicating to many students the spirit of his own reverent quest. The *Philosophy of Theism*, in which he endeavoured to sum up the results of his lifelong meditation, has much of the breadth and simplicity of statement

which distinguish a personal deliverance from an academic argument.¹

Alexander Campbell Fraser was the eldest son of the parish minister of Ardchattan in Argyllshire, who had married the daughter of a neighbouring laird. He was thus a Celt both on the father's and the mother's side. Born at the manse on September 3, 1819, in the last year of the reign of George III., he was able towards the end of his life to say that he had lived under six British sovereigns. After a single session in Glasgow he entered the University of Edinburgh in 1834, where he heard Sir William Hamilton's inaugural lecture and was introduced to moral philosophy by John Wilson, better known as Christopher North. A little later he was a member of Hamilton's advanced class in metaphysics, and attended Dr. Chalmers's lectures on divinity in preparation for the ministry of the Church of Scotland. At the Disruption in 1843, Chalmers became the leader of the Free Church; and Fraser, following the example of his teacher as well as of his own father, joined the seceders, and was ordained in 1844 as minister of the Free Church at Cramond, a small country charge near Edinburgh. Two years later, the establishment of a Chair of Logic and Metaphysics in the Free Church theological college opened up to him the academic career to which his strong native bent and all his tastes adapted him. He held this position for ten years, till the death of Hamilton, in 1856, threw open the University professorship. He made a reputation from the first as a stimulating teacher, and during these years he also became known to wider circles as the editor of the *North British Review*.

Hamilton died in May, 1856, and the struggle for the Chair which he had made famous formed something of an episode in the domestic history of Scottish philosophy. Ferrier, then Professor at St. Andrews, was almost certainly at that time the most distinguished representative of metaphysics in Scotland. Eleven years older than Fraser, and the author of an important metaphysical work, he seemed marked out for the succession alike by the boldness of his speculations and the brilliance of his literary gifts. But Ferrier had sought out other masters than Reid and Stewart. He was understood to have drunk deep at German sources and, in his forcible style, he had

¹ This paragraph and some other parts of the introductory account of Fraser's life are taken from a biographical notice contributed to vol. vi. of the *Proceedings of the British Academy*, to which readers are referred for further information.

spoken very contemptuously of the Scottish philosophers whom Hamilton had edited and expounded. Orthodox suspicions were aroused, and Dr. John Cairns (who had the offer of the Chair himself, as he had had that of Moral Philosophy on Wilson's death four years previously) came forward with an *Examination of Ferrier's Theory of Knowing and Being*, which was largely instrumental in deciding the issue. Cairns was himself a metaphysician of considerable power, and his pamphlet undoubtedly touched real weaknesses in Ferrier's system; but it also exaggerated its supposed theological tendencies, and thus fanned the prejudices of the electors. Denominational influences were also brought to bear upon the Town Councillors, with whom the patronage of the Chair then rested. A lively war of pamphlets ensued, waged both in prose and verse. Prof. Aytoun mingled (or was believed to have mingled) in the fray with a skit in verse, *A Diverting History of John Cairns*. More serious combatants entered the lists on Ferrier's behalf; but Cairns returned to the charge with a second pamphlet, *The Scottish Philosophy, a Vindication and a Reply*, and on July 15 Fraser was elected by a majority of three to the Chair which he was to dignify for thirty-five years. After the election Ferrier delivered his soul in a 'statement' called *Scottish Philosophy, the Old and the New*, in which he vehemently repudiated the supposed Hegelian origin of his philosophy—claiming that it was 'Scottish to the very core, national in every fibre and articulation of its frame'—and denounced the procedure of the Town Council, inasmuch as, 'after the recent abolition of theological tests, they have arbitrarily imposed a philosophical test of the most exclusive character. It is well to know that a candidate for a philosophical chair in the University of Edinburgh need not now be a believer in Christ or a member of the Established Church, but he must be a believer in Dr. Reid and a pledged disciple of the Hamiltonian system of philosophy.' It is pleasant to be assured that this somewhat envenomed controversy did not affect the friendly relations which continued to subsist between the two candidates. Ferrier died as long ago as 1864, and at the distance of nearly sixty years from the controversy there is ground for the view that, if Fraser did not possess his rival's literary brilliance and incisive statement, there was more of human breadth and more staying power in his thinking than in the somewhat meagre results of Ferrier's demonstrative method. But the more immediate sequel of the appointment was not without its surface aspects of humour. His 'idealism' had been one of the

main counts against Ferrier, and Fraser soon afterwards laid the foundations of his wider reputation by his sympathetic exposition of the English idealism of Berkeley, which became central in his academic teaching for at least a quarter of a century.

Fraser taught in the University of Edinburgh for thirty-five years, and, by common consent of those most capable of judging, left the reputation of a great teacher. He was a great teacher not exactly in the sense of a dominating personality—for I do not think that he made much impression on the average undergraduate, apt to be indifferent to philosophy—still less as a man with a dogmatic message which he impressed upon his pupils, but because he possessed a singular power of awakening and stimulating the philosophic instinct in his best students. Doubts and questions were presented to them rather than solutions, but ways were pointed out along which solutions might be found. The mystery of the world was emphasised, but faith in an intellectual and moral harmony was kept alive; and so there was created in the old classroom an intellectual eagerness combined with elevated feeling which seemed to make it an ideal home of the philosophical spirit. Like Socrates, Fraser was fond of declaring himself 'a seeker,' and it was because his students divined in him a fellow-seeker that he was so good a guide to their opening minds. I cannot do better than quote from the warm address presented to him by his old honours students on the occasion of his academic jubilee in 1906. 'You never sought,' the signatories say, 'to impose upon our minds a dogmatic system of belief, but with a deeper trust in the eventual harmony of the results of all serious and independent thinking, sought to stimulate us to a constant individual effort in the pursuit of truth. And while yourself a scholar whose work upon the classics of English philosophy has achieved a world-wide reputation, you never failed to set before us a higher ideal of philosophical study than that of mere scholarship and research—the ideal which we saw exemplified in your own work as a thinker and teacher, of ever-renewed and unwearying meditation on the questions that are most ultimate and fundamental in the spiritual life of humanity.' It was the natural consequence of such an influence that the Edinburgh class of Logic and Metaphysics became a training-ground of philosophical thinkers who went out to fill Chairs in most of the universities of the English-speaking world.

The earlier years of Fraser's tenure of the Chair were chiefly occupied by the studies which issued in the great

edition of Berkeley's *Works*, and of his *Life and Letters* in 1871, supplemented by the charming presentment of his life and thought contributed to Blackwood's 'Philosophical Classics' in 1881. By his work on Berkeley Fraser made his name a household word wherever English philosophy is studied, and in spite of the larger range and more independent grasp of some of his later work, it was to the end as the editor of Berkeley that he was most widely known. From Berkeley he was naturally led back to a closer study of Locke, the fruits of which appeared successively in the article 'Locke,' contributed to the ninth edition of the *Encyclopædia Britannica*, in a volume on Locke, a companion to his Berkeley in Blackwood's series, and an elaborate edition of the *Essay*, with prologomena and notes, published in 1894, three years after his retirement. Two years later his appointment as Gifford Lecturer in his old university enabled him to gather up the results of his life-long meditation in two volumes on *The Philosophy of Theism*; and in 1904 he published, under the title *Biographia Philosophica*, an interesting retrospect of his long life, in which personal reminiscence is charmingly combined with a meditative restatement of his philosophical results. Still later, in an article in the *Hibbert Journal* of January, 1907, characteristically entitled 'Our Final Venture,' and in a little volume on *Berkeley and Spiritual Realism*, contributed to Constable's series of 'Philosophers Ancient and Modern,' he returned to present in short compass his fundamental positions. He was in his ninety-second year when he laid down his pen. During the last three or four years of his life there was of necessity an increasing physical feebleness, but his mental faculties remained unimpaired to the end, and his bodily senses were still as keen as those of a young man. He passed away painlessly and almost imperceptibly on the morning of 2nd December, 1914.¹

¹ For convenience of reference a complete list of his philosophical publications is appended:—

Inaugural Lecture at the opening of the Class of Logic and Metaphysics in the New College, Edinburgh, 10th December, 1846. (Reprinted from *Lowe's Edinburgh Magazine*, 1847.)

Introductory Lecture on Logic and Metaphysics, 8th November, 1850 (printed in a volume commemorating the *Inauguration of the New College of the Free Church, Edinburgh*, 1851).

Essays in Philosophy, published in 1856, consisting of six articles contributed to the *North British Review* between 1846 and 1855.

Rational Philosophy in History and in System, the expansion of an introductory lecture to his course, published in 1858.

Article on 'Recent British Logicians' (*North British Review*, 1860).

As we have seen, Fraser's adhesion, or presumed adhesion, to the national way of thinking was in some degree his passport to the Edinburgh Chair. But the polemical emphasis of Scottish philosophy was different in the time of Hamilton from what it had been in the days of Reid. Hamilton, it is true, had incorporated in his teaching the Natural Realism of the founder of the school—combined with a Kantian phenomenalism and other modifications whose consistency with the original doctrine is more than questionable—but his own reputation was mainly based on his challenge to Cousin, and through him to German Absolutism. This was, therefore, the aspect of Scottish Philosophy which was most in people's minds, and it was a suspicion of the German, more particularly the Hegelian, *virus* which proved fatal to Ferrier's candidature. Vehemently as he repudiated a foreign origin for his thought, he at least confessed to having "read most of Hegel's works again and

'The Real World of Berkeley' (*Macmillan's Magazine*, 1862).

'M. Saisset and Spinoza' (*North British Review*, 1863).

'Berkeley's Theory of Vision' (*North British Review*, 1864).

'Archbishop Whately and the Restoration of the Study of Logic' (an Introductory Lecture, 1864).

'Mill's Examination of Sir W. Hamilton's Philosophy' (*North British Review*, 1865).

'Isaac Taylor' (*Macmillan's Magazine*, 1865).

'The Philosophical Life of Professor Ferrier' (*Macmillan's Magazine*, 1868).

Clarendon Press edition of Berkeley's *Works* (3 vols.), and *Life and Letters* (1 vol.), 1871. (Second edition of the *Works*, in four volumes, with new biographical and critical Introduction, 1901.)

'Biographical Notice of J. S. Mill' in the *Proceedings of the Royal Society of Edinburgh*, 1873.

Selections from Berkeley, with Introduction and Notes, 1874 (6th edition, 1910).

Berkeley in Blackwood's 'Philosophical Classics,' 1881 (new edition, 1899).

Article on 'Locke' in *Encyclopædia Britannica*, 1882.

'Philosophical Development' (*MIND*, 1890).

Locke in Blackwood's *Philosophical Classics*, 1890.

Clarendon Press edition of *Locke's Essay* with Prologomena and Notes (2 vols.), 1894.

Philosophy of Theism (Gifford Lectures) (2 vols.), 1895 and 1896. (Second edition in a single volume, 1899.)

'Philosophical Faith,' in *Philosophical Review*, November, 1896. (This is a reprint of Lecture V. in the second Gifford volume.)

Thomas Reid, in 'Famous Scots' series, 1898.

Biographia Philosophica, 1904.

'John Locke as a Factor in Modern Thought' (for the bicentenary of Locke's death in 1904), in *Proceedings of the British Academy*, vol. i.

'Our Final Venture' (*Hibbert Journal*, January, 1907).

Berkeley and Spiritual Realism, in 'Philosophers, Ancient and Modern,' 1910.

again"; and so much trafficking with the enemy may have seemed to many incompatible with innocence. Fraser, on the other hand, received the benediction of Cousin as a faithful pupil of his illustrious master "who would maintain the integrity of the Scottish Philosophy before the European public" and prevent its yielding ground "à quelque importation de la mauvaise métaphysique de l'Allemagne dégénérée". Cousin in his maturer years had largely abandoned the absolutist speculations of his youth, and felt himself much in sympathy with *le bon sens* of the Scottish philosophers and the assiduous study of human nature in which their thinking is rooted.¹ It becomes of interest, then, to inquire in what relation Fraser stands to the doctrines historically associated with "Scottish Philosophy". Is he to be regarded as the inheritor and transmitter of the doctrines of Reid and Hamilton? Or, if the specific doctrines of his predecessors receive little prominence either in his earlier or his later writings, is there still that in his philosophical attitude and conclusions which marks him out as the genuine heir of the national tradition?

Certainly, if we look at his early essays, or at the account which he gives in the *Biographia Philosophica* of his mental development, there is little trace of special interest in the question of Natural Realism which is usually treated as the cardinal doctrine of this school. There is, I should almost say, an inadequate appreciation of the originality and significance of Reid's attack on 'the ideal theory'. He does, indeed, on occasion (*e.g.* in his critical essay on Ferrier) intimate his adhesion to Hamilton's doctrine of a direct knowledge of the primary qualities of matter;² but in the essay on "Hamilton and Reid," where the subject is more fully discussed, he gives it as his opinion that "the theory of perception maintained by Sir William Hamilton is not likely to exhaust discussion. . . . We are inclined to expect an increase rather than an abatement of the intellectual gladiatorship which has been associated with the theory of our knowledge of matter, as the result of a more diffused acquaintance with the assumptions and arguments of these Dissertations."³ And in the earlier essay on 'The Life and Philosophy

¹ Preface to the third edition of Cousin's *Philosophie Ecossaise*, published in 1857.

² *Essays in Philosophy*, 338-339. And again in a note on p. 204, in drawing a distinction between Reason and Reasoning, he says, "In 'perception' and 'self-consciousness' Reason recognises Matter and our own Personality as real".

³ *Ibid.*, p. 97.

of Leibniz,' after comparing Leibniz and Berkeley, as "two philosophers whose speculations conducted them to immaterialism," he expressly leaves the dispute between 'the national philosophy of Scotland' and the idealistic hypotheses it has had to encounter, as "at least an open question in metaphysical science".¹ Moreover, in the very act of defending the direct apprehension of objects as extended, he again brings "the philosophy of Scotland into relation with the philosophy of Berkeley," and quotes Sir William Hamilton's own authority for "the general approximation of thorough-going Realism and thorough-going Idealism."² He says, indeed, in the *Biographia*, "At one time I was disposed to regard the difference here between Berkeley and Hamilton as more in words than in the implications of their thought".³ And in the important essay which he contributed, in 1865, to the controversy called forth by the appearance of Mill's *Examination of Hamilton*, he deliberately sought to reconcile Hamilton's very peculiar variety of Natural Realism with Mill's doctrine of 'permanent possibilities,' and both with the divine sense-symbolism of Berkeley. "Men cannot act, cannot live, without assuming an external world, in some conception of the term 'external'. It is the business of the philosopher to explain what this conception ought to be. For ourselves [he concludes], we can conceive only—(1) an externality to our present and transient experience in *our own* possible experience past and future; and (2) an externality to our own conscious experience in the contemporaneous, as well as in the past or future experience of *other minds*."⁴ No wonder that Mill, in replying to his multitudinous critics, welcomed Fraser as an ally. "The view I take of externality, in the sense in which I acknowledge it as real," he comments on this passage, "could not be more accurately expressed than in Professor Fraser's words."⁵ Looking back upon this incident long afterwards, in the *Biographia*, Fraser was inclined to think that, in this attempted eirenicon, sympathy had made him stretch conciliation too far.⁶ But it is at least obvious, from the quotations given, that it is not as a stalwart upholder of Natural Realism that Fraser is to be ranked among the Scottish philosophers. The attitude of mind revealed in these papers, extending over a period of twenty years, makes it plain that the question possessed no central importance for his thought. He was, indeed, pre-

¹ *Essays*, pp. 48-50. ² *Ibid.*, p. 338. ³ *Biographia*, p. 61.

⁴ *North British Review*, vol. xliii., p. 26.

⁵ *Examination*, third edition, p. 233, note. Cf. Preface, vii.

⁶ *Biographia*, p. 175.

occupied from first to last with the ultimate questions of metaphysics and theology—the first two problems of the Kantian triad, the problem of God and the problem of man's responsible agency.

This is borne out by what we glean from the *Biographia* about the course of his early mental development. His earliest metaphysical ponderings turned on the question of causation, forced upon his childish mind by the popular doctrine of God as the originative Cause of the universe; and Timothy Dwight's lectures on natural theology proved more suggestive of doubts than helpful towards a solution of difficulties. When his philosophical bent asserted itself more definitely a few years later, during his college course, it was Thomas Brown's lucid *Inquiry into the Relation of Cause and Effect*, read in the summer of 1836, which attracted his youthful allegiance, and his own first attempt at philosophical writing was an essay on the same subject, read before one of the students' societies in the spring of 1838. Now Brown, although usually enumerated in the Scottish succession between Reid and Hamilton, is more properly to be regarded as a link between Hume and the Mills. His view of causation is simply invariable antecedence as learned from experience or impressed on us by association. Brown's Essay presents Hume's doctrine in a less compromising setting without drawing Hume's sceptical conclusions; and Hume's doctrine, again, it must be remembered, is just Berkeley's theory of sign and thing signified *minus* Berkeley's theistic background. To Berkeley the causal relation between phenomena is a beneficent arrangement of the Deity for the guidance of our lives; it is part of a divine sense-symbolism whereby one phenomenon suggests another. But when we look at the matter from the subjective side and consider the process by which this language is learned, Berkeley, like Hume, refers us *simpliciter* to association. The arbitrary or non-necessary character of the relation is a topic on which he is never tired of insisting. Hume's triumphant polemic against the idea of 'secret power' and his demonstration of the unpredictability of the particular sequences prior to experience contain, in principle, nothing new, although his incisive statement and his concentration upon the question made his treatment of decisive historical importance. There is nothing surprising, therefore, in the attraction of the theory for the future editor and expounder of Berkeley. For the purposes of science and of practical life, moreover, invariable (or, as Mill eventually calls it, unconditional) sequence is a sufficient account of the facts of physical causation; and to physical caus-

ation Berkeley had limited its application. Its inadequacy as an account of personal agency (here Hume's argument is superficial almost to flippancy) soon led Fraser, as it had done Berkeley before him, to a distinction between the phenomenal sequence of events which we miscall causation and the active or real causation of intending will. John Wilson's moral philosophy lectures called his attention to free agency as involved in moral responsibility; and in the summer of 1838, which he cites as an era in his life, further reading of Berkeley, supplemented by Coleridge's *Aids to Reflection* and by 'echoes of Kant,' confirmed a distinction which remained henceforth fundamental in his thought. From the beginning it was thus Berkeley's doctrine of the active causation and the central reality of mind, rather than his immaterialism or so-called idealism which attracted Fraser. 'Spiritual Realism' was the title he gave, in 1910, to his latest exposition of his favourite philosopher.

During the same summer of 1838 he made his first acquaintance with Hamilton's two essays in the *Edinburgh Review* on the 'Philosophy of the Unconditioned' and the 'Philosophy of Perception,' and during the following winter—the first of his theological course—he attended Hamilton's advanced class in metaphysics and also the evening gatherings of his best students which took place, on the professor's invitation, at his own house. Looking back after more than fifty years, Fraser says deliberately, "I owe more to Hamilton than to any other intellectual influence".¹

The nature and extent of that debt is somewhat difficult to determine on account of the extreme dissimilarity in manner between the two philosophers. Hamilton is dogmatic and polemical, the master of an incisive and rhetorically balanced style; he delights in the minutiae of controversy, and multiplies distinctions by the invention of a highly technical terminology. Fraser's style is often that of one meditating aloud, and is apt to become involved and amorphous in consequence. At other times his method is Socratic, working by question and suggestion; the interrogation mark probably occurs more frequently in his writings than in those of any other philosopher. He avoids explicit controversy, and when he has to deal with other thinkers, his usual attitude is sympathetic and conciliatory. His instinctive effort is to find an eirenicon or, if that is impossible, to reduce the difference to some fundamental issue. "What is the concrete question," he characteristically asks, "which lies beneath this contro-

¹ *Biographia*, p. 58.

versy about an Unconditioned?"¹ Or, again, in his first published paper, speaking of the controversy between realism and idealism, its adjustment, he says, "is of practical importance chiefly as it is connected with the refutation of scepticism".² He shows almost a pronounced distaste for the technical discussions of the schools, and unceasingly endeavours to recall philosophy to the fundamental human interests which these controversies mask. And in a similar spirit in his second essay, even in the act of praising the precision of Hamilton's elaborate nomenclature and terminology, he hints that "the ratiocination in which the terms are included sometimes appears to imply a mere involution and evolution of the signification of a series of names," and intimates a doubt on his own part whether "the resources of our good old native English with its agreeable suggestions of common or less abstract objects, have been rendered so available as they might have been."³ We are prepared then to find that the debt he owed to Hamilton consisted largely in the stimulating influence of mind on mind. Just as Natural Realism in its strict sense plays no part in Fraser's teaching, so the doctrine of the Relativity of Knowledge which Hamilton combines with it reappears in Fraser in a form so generalised as to escape the criticism which has been justly levelled against the Hamiltonian theory. Whereas Hamilton's doctrine of Relativity would reduce all our knowledge to illusion—a systematic distortion of reality ("rerumque ignarus, imagine gaudet")—to Fraser the doctrine means no more than the essentially limited and fragmentary character of our knowledge compared with what Locke calls "the vast ocean of being". Such a position casts no aspersion on the truthfulness of the knowledge so far as it goes, though it effectually forbids the hope of that completed system of knowledge which we imagine an omniscient mind to possess. This is, indeed, the sense which Fraser put upon Hamilton's doctrine of universal 'nescience' in the apologia which he wrote in reply to Mill in 1865: "Let us recollect," he says, "that when we are said to be ultimately nescient, this implies that there can be no proper science of anything until everything is completely known—that Omniscience is the only Science."⁴ As compared with this

¹ *North British Review*, vol. xliii., p. 50.

² *Essays in Philosophy*, p. 49.

³ *Ibid.*, p. 73-74.

⁴ *Ibid.*, p. 49. In the *Biographia*, nearly forty years later, he gives the same interpretation of the Hamiltonian doctrine. "While the language in which it was expressed was paradoxical, I believed that it was in intention only an expansion of what is involved in the question in the Bible—

impossible ideal, Fraser was content to confess with Bacon, in the passage he was so fond of quoting, that in our human philosophy "many things must be left abrupt". Or, as he often puts it, our knowledge though practically adequate is speculatively insufficient; and in particular it is impossible to eliminate the element of faith on which the whole fabric rests. Fraser's position, in short, is not the Kantio-Hamiltonian agnosticism which we meet again in Mansel and Spencer, but a fresh expression of that modesty in philosophising so characteristic of our older English writers as compared with the more confident and ambitious speculators of the Continent.

Nevertheless Hamilton's polemic against the Philosophy of the Unconditioned, or, as it is now called, Absolutism, exercised a decisive and permanent influence on Fraser's thinking, and that not only as regards the general doctrine of the limitation of human faculty but also as regards the specific form of Hamilton's contention—the argument from the antinomies of space and time and causality, in which reason finds itself involved when it tries to think out the cosmic whole. The definite declinature of the Absolutist or 'gnostic' solution is perhaps from first to last the most outstanding characteristic of Fraser's thought: and in his latest as well as his earliest writings there is the recurrent reference to Space and Time—"these perennial mysteries of thought"—"these sublime avenues to the inconceivable".¹ No doubt the limitations of human knowledge had been a traditional thesis of British philosophy, and the doctrine of the antinomies he might have got direct from Kant. "The spirit of Bacon," he says himself in one passage, "together

'Who by searching can find out God, who can find out the Almighty unto perfection?' An exhaustive explanation of the mysteries in the Divine Reality seemed possible only in Omniscience; but man is not and cannot become omniscient. Yet this intellectual helplessness was not inconsistent with a progressive human knowledge of the Active Reason that is (so far) revealed in all the facts and laws of the physical and spiritual universe. Nor would Hamilton, I daresay, have denied this, although his point of view led him to lay an emphasis upon the ultimate incomprehensibility, not upon this practical revelation of the Universal Mind or Will" (p. 148). As a matter of fact, Hamilton sometimes uses language which would imply that this is all he means, and certainly this is all that is meant by many of the 'cloud of witnesses' whom he quotes in support of his agnostic conclusion. But his own doctrine is fatally entangled in the false metaphysic which treats the substance or thing-in-itself as a separate entity behind the qualities, concealed by the qualities or appearances instead of being revealed in them.

¹ *Essays in Philosophy*, p. 171; cf. *Berkeley* ('Philosophical Classics'), p. 211 (second ed., 206); *Gifford Lectures*, first series, pp. 174-177; *Biographia*, p. 314.

with the speculations of Locke and Kant and Sir William Hamilton have wonderfully advanced our knowledge of the true theory of our *necessary* ignorance"; and in a note he adds, "this surely is the lesson of all true philosophy from Plato downwards".¹ But in spite of this consensus of authorities, it is reasonable to assume that Hamilton was the channel through which these doctrines reached Fraser and shaped his mental attitude. In this respect, therefore, Fraser may be said to inherit and carry on the specific contention of what he called in the '40's of last century "the new Scottish Philosophy"; but it is characteristic of him that from the first he disuses almost entirely the technicalities of Hamilton's statement in the so-called "Philosophy of the Conditioned".

Indeed, an attentive reader of the early *Essays*, not to speak of his later writings, cannot fail to make the general observation that Fraser's affinities were, in many respects, more with the older English thinkers than with his more immediate predecessors in Scotland, or any philosophy that could be designated specifically Scottish. As he says in the *Biographia*, reviewing his mental attitude in the '40's: "My inclination was to an English manner of treatment, so far as it keeps firm hold of what is found in concrete experience, under conditions of place and time, and refuses to pursue a unity that is possible for men only in a world of abstractions".² It is the larger contrast between British and Continental philosophy which he has in view, the Continental type being most prominent in the speculative metaphysics of Germany, though exemplified earlier in the deductive and professedly demonstrative systems of Descartes and Spinoza. As he puts it in an essay of 1853 on Hamilton's *Discussions*, "the philosophical methods and language which have originated in Germany during the last seventy years, so fill the vision of some of the minds devoted to this study in Britain and America, that they seem to have forgotten the fact, concealed in the past behind the cloud of German metaphysics, that we have a characteristic British philosophical literature of our own. . . . The old Scottish [philosophy] was a modification of the British, with some important peculiarities".³ Such language strikes us as almost strange at a time when so little was really known in this country of the great German movement; but the reference is to what he calls "the new Scottish doctrine"⁴—"the Scoto-German philosophy"⁵ of

¹ *Essays*, p. 265.² P. 138.³ *Essays*, pp. 134-135.⁴ *Ibid.*, p. 163.⁵ P. 72.

Hamilton, with perhaps a glance at a thinker like Ferrier, whose mind was so markedly of the deductive, Continental type, and who had written very contemptuously of the home-grown product. Thirty years later—in the eighties—when the labours of Stirling, Green, and the Cairds had promoted a much more genuine and intimate knowledge of German Idealism, Fraser had to face among his own students, and among the younger generation of University teachers generally, an almost universal adoption of German terminology and German methods.¹ Idealism of a Hegelian type seemed to have made a permanent conquest of academic thought. But Fraser found himself as little disposed as ever to acquiesce in “the philosophical prejudice of Germany against what Bacon calls ‘abruptness’—that is to say, acknowledgment of an unexplained residuum of mystery, which forbids the perfection of philosophical science”. So he characterised the Hegelian movement in 1881, in the suggestive closing chapter of his little volume on *Berkeley* in Blackwood’s Philosophical Series, where he presents “a philosophy grounded on Faith,” as the only legitimate and possible human position, in contrast to the “gnosticism” or omniscience apparently involved in the claim of Absolute Idealism. And in his very last printed page, the short preface to a sixth edition of his *Selections from Berkeley*, dated October, 1910, he described his own position as “a Realism that is fundamentally spiritual, although after a native rather than a German type”.

It will be sufficiently obvious from what has been already said—or, if not, it will become plain in the sequel—that this attitude was not dictated by insular patriotism but was based on a real contrast in philosophic doctrine or, perhaps one should say, in philosophical temper. Nor was it due to ignorance, for though Fraser certainly never studied the post-Kantian Idealists with the pains lavished upon them by a younger generation, he had made himself sufficiently acquainted with their general position, the assumptions on which it was based and the consequences which it legitimately involved. More than this seemed unnecessary to one to whom philosophical scholarship was no end in itself, and who carried the actual problems always about with him. “Glimpses of Germany engaged in speculation,” he had said in one of his earliest essays, “are no substitute for original thought about matters such as those on which the Germans in these times, and Reid, Locke, and Bacon in Britain, in

¹ “A generation saturated with Kantian and Hegelian conceptions” is an expression used by himself in the *Biographia*, p. 289.

other times, have displayed the highest qualities of intellect. If these specimens, by Sir William Hamilton, of what a profound knowledge of the history of opinions really is, incite some men to an exact study of the books of foreign countries and of former generations, they are also fitted to rouse the still more dormant spirit that seeks direct and independent intellectual contact with the *real problems themselves*. It is not the repetition of a faint echo from Germany or France that constitutes the substance of what is contained in the immortal works of the British philosophers whom we have named, who erected for us a National Philosophy, with certain invaluable characteristics peculiarly its own."¹ He was nourished on the classics of English philosophy; these were the books on which he first browsed as a youth, and to which he continually returned. There is no author whom he is fonder of quoting than Bacon, and Berkeley fascinated him from his fourteenth year when he first heard of him in talks with his tutor. Berkeley and Locke were his constant companions during thirty years of his maturer age, and Hume he read with a keen pleasure. He was accustomed to say that, if he ever felt intellectually stale, a few pages of Hume acted as an infallible stimulant. To these central names must be added the liberal theology of Hooker, Chillingworth, Cudworth and other Cambridge Platonists, and in more recent times Coleridge and Newman. Besides these, Pascal was a favourite author, while French philosophy in Descartes and Malebranche was familiar ground, as well as Spinoza and Leibniz, and of course Plato and Aristotle. He had also given considerable attention to Aquinas and other mediæval writers. But besides Leibniz, the only German thinker with whom he had vital relations was Kant, and chiefly, I think, the Kant of the Antinomies and of the Categorical Imperative—the critic of rationalistic metaphysics, who found his ultimate standing-ground in an ethical faith. So regarded, Kant is nearer to traditional English modes of thought than to either the arid ontology of the Wolffians—his German predecessors—or the soaring Idealism of his successors. Fraser offers thus the interesting spectacle of a thinker whose culture is practically independent of what we usually understand by German philosophy, and whose discussions avoid almost entirely the technical dialect which, as he often complained, was robbing philosophy of its proper influence on the general thought of the age, and making it a learned speciality, to an extent which was not the case in

¹ *Essays*, p. 71.

the great thinkers of our race in the past. He resented the idea, apparently implied, that profound thought could not be expressed in a style as lucid and direct as the English of Berkeley or Hume. And he lived long enough to see in many quarters a return to greater simplicity and clarity of diction as well as a reaction against too exclusive subservience to German masters.

At this distance of time the essays collected in 1856 are not in themselves particularly impressive. They suffer from diffuseness and a tendency to digression—faults partly due, no doubt, to their appearance in a periodical designed to interest the general reader. Their topics, with the exception of the first paper on Leibnitz which was written to the editor's order, are drawn from the contemporary movement of philosophy in Scotland. The second essay, on the occasion of Hamilton's edition of Reid in 1848, circles round the doctrines of these two philosophers, especially in regard to perception; the third utilises the appearance of Hamilton's collected *Discussions in Philosophy*, in 1852, to discourse on Scottish Metaphysics, old and new, with some independent criticism of Hamilton's theory of Causation; the fourth, on 'The Insoluble Problem,' takes as its starting-point Calderwood's youthful criticism (in his *Philosophy of the Infinite*) of Hamilton's doctrine of nescience; the fifth, taking as its text Mozley's *Treatise on the Augustinian Doctrine of Predestination* (1855), is a fresh discussion of the antinomy between necessity and freedom in the light of Mozley's Hamiltonian formulæ; while the last, and at the same time the ablest, both in thought and expression, is a criticism of Ferrier's *Institutes of Metaphysics*. As already partly indicated, the feature common to all the essays is the insistence on the essentially partial or limited character of our knowledge,¹ the mysteries on which our thought ultimately abuts, and the necessity, therefore, of 'philosophical faith' or 'belief' as an element in any human theory of the universe. We find here already the *via media*, the phrase deliberately adopted in his later writings to describe his own position—"that *via media* between Pyrrhonism and Transcendentalism—extremes that virtually meet—which alone is open to [man] during his sojourn on this 'isthmus of a middle state'".² Is not philosophy, he says again, "eminently the middle ground from which we wander, alike when we indulge in

¹ "The inspired words which express the best of all metaphysical lessons—we know in part" (*Essays*, p. 262).

² P. 83.

a universal suspense of judgment, and when we demand *premises for every judgment* which we accept as an article of faith"?¹ Consequently, in the essay on Ferrier, we have the division into "*ontological metaphysicians, philosophical metaphysicians and sceptical metaphysicians*. But the ontological and sceptical extremes meet and we may divide metaphysicians into *ontologists* and *philosophers*. . . . We find mankind virtually formed into two great sections, as they, consciously or unconsciously, incline to merge faith in knowledge or knowledge in faith."² Faith he calls, in a note to his earliest essay, "the organ of the higher metaphysics".³

As to the scope and nature of this Faith or Belief—the specific beliefs which it includes and the precise way in which it functions in our experience—he has not yet arrived at clearness. Sometimes he seems willing to identify it, in its scope and function, with the principles of common sense of the older Scottish philosophy. He speaks, for example, of "the elements of philosophical faith or, in the language of Reid, the principles of Common Sense"; and he defines common sense as "those notions and beliefs which are essential to man, regarded as an intellectual and moral being".⁴ In one place he uses the striking phrase, almost Kantian in its suggestion, "those beliefs and notions which create and cement our knowledge".⁵ More often he employs Hamiltonian terminology, as when he defines philosophical Faith as "the belief of principles which in themselves are incognisable or irreconcilable by the understanding, and yet unquestionable".⁶ Faith is here brought into special connexion with the Law of the Conditioned.⁷ The central examples to which Fraser constantly returns are the existence of God, as the Infinite Power on which the universe depends, and the existence of man as a free responsible agent. "The finite mind cannot grasp the full conception of the co-existence of a responsible creature with the infinite Creator. . . . The existence of a *moral creation* is a fact which man cannot explain."⁸ They are not however necessarily contradictory, for, as he urges, the incompletable causal regress contains in its bosom the mystery of eternity and is therefore ultimately as incomprehensible as the fact of freedom. A reconciliation of the apparent contra-

¹ *Essays*, p. 195.² Pp. 294-295.³ P. 33.⁴ P. 100.⁵ P. 90.⁶ P. 32.

⁷ The law, namely, that "all that is conceivable is a mean between two contradictory extremes, both of which are inconceivable, but of which, as mutually repugnant, the one or the other must be true". (Hamilton's *Lectures on Metaphysics*, i., 34).

⁸ P. 51.

dictions is therefore possible, though not at the human level, and meanwhile it is incumbent upon man to retain a belief in both.

But while thus emphasising the margin of mystery into which all our definite knowledge fades, Fraser avoids that deliberate flouting of human knowledge implied in Hamilton's favourite epithets "impotence" and "imbecility". He expressly criticises Hamilton's reduction of the causal judgment to a form of our mental weakness, and prefers to regard it as a necessary belief concerning objective existence—a belief which leads us in the end beyond second causes to the ultimate sustaining Cause of the whole.¹ And as regards the general Hamiltonian doctrine of ignorance he asks pertinently: "How can faith be maintained amid an absolute negation of knowledge which implies a total suspense of judgment? Belief *may* consist with an imperfection of knowledge, but how shall it be applied at all to that of which we can know nothing?"² "We hold with Cousin," he says elsewhere,³ "that Transcendent Being is not *wholly* unknown. How else can we account for the controversy at all? Yet we hold with Sir W. Hamilton that, as transcendent or unconditioned, Being cannot be *scientifically* known." "But the Scottish philosopher," he adds, "seems to cut away every bridge by which man can have access to God." He quotes Berkeley's satirical reference to "an unknown subject of absolutely unknown attributes" as on the whole nearly as good as no God at all, and notes the tendency of Hamilton's doctrine "to recognise a Belief that is wholly void of intelligence".⁴ He thus enters his protest in advance against Mansel's agnostic application of Hamilton's argument in the interest of theological dogma.

The essay on Ferrier, written in 1855, should be read in connexion with the finely-touched tribute to Ferrier's genius written thirteen years later, on the appearance of his *Philo-*

¹ As he indicates in the *Biographia*, there is a vague anticipation here of his final position. Hamilton's "negative view of Causation seemed unduly to attenuate the conception, and to take no account of what is implied in active originating Power. So I ventured to dissent in favour of a conception of which I was not then fully master. I was beginning to think that the mental demand for the physical cause of an event is a consequence of the inability of the human mind to suppose that nature is finally unintelligible and therefore uninterpretable. . . . The inexorable demand for a cause when we see change was thus ultimately our recognition of the immanence of Omnipotent Mind" (*Biographia*, p. 146).

² *Essays*, p. 195.

³ P. 222.

⁴ P. 193.

sophical Remains.¹ There is in both the same spirit of personal courtesy along with an ungrudging appreciation of the speculative sweep and literary charm of Ferrier's work ; and both urge the same fundamental criticisms of Ferrier's demonstrative method and the results he claimed for it—no less than, in his own phrase, "to lay open the universe from stem to stern". But the later essay shows a distinct growth of Fraser's mind away from distinctively Hamiltonian positions, and a fuller appreciation, therefore, of Ferrier's central polemic against the spurious mystery of unrelated Being or the thing-in-itself. This was due, doubtless, to his prolonged study of Berkeley in the interval. He rightly notes in the earlier essay the affinity between Ferrier's thought and Berkeley's. "Berkeley alone, of all British metaphysicians," he points out, "receives Mr. Ferrier's enthusiastic praise. Mr. Ferrier, carried with a later generation on the strong tide of German speculation, has developed the Psychology of Berkeley into a kind of Scottish Hegelianism."² But he shows in that essay an inadequate appreciation of the doctrine common to both, the complete relativity of knowing and being ; for he identifies it vaguely with "the familiar maxim that human knowledge is relative,"³ and refers, moreover, to the theories of Locke and Kant, as containing "the new theory expressly or by implication,"⁴ although Locke and Kant are precisely the modern philosophers who make most play with unknowable substance and the thing-in-itself, and it is the incisive polemic of Berkeley against Locke and of Hegel against Kant that reappears in Ferrier. The truth is that at this stage of his career Fraser had not yet emancipated himself from the Kantio-Hamiltonian superstition that because nothing can be known without entering into relation to a knower, therefore nothing can be known at all as it really is. Hence we find him at the close of the essay slipping into the characteristically Hamiltonian statement that death itself will not annul the disability ; whatever moral advance a future state may bring with it, we shall remain "*eternally ignorant of Being*".⁵ In the later article, on the contrary, under the guidance of Berkeley, he is ready to identify himself with Ferrier's central contention. "Abstract substances, whether Mind or Matter, are alike unintelligible and unpractical." The attempt to unite in Knowledge these "unknowable but

¹ "The Philosophical Life of Professor Ferrier," in *Macmillan's Magazine*, January, 1868.

² *Essays*, pp. 310-312.

³ P. 328.

⁴ Pp. 330-332.

⁵ P. 342.

mutually independent entities or substances" leads, he says, to hypotheses of mediate or representative perception. "The Hamiltonian summary abolition of these hypotheses," he adds, "and substitution of an *immediate* perception—call it *consciousness*—of matter is an advance towards the common standpoint of Ferrier and Berkeley; except so far as it is clogged by the assumption of a *substantial*, and by us unknowable, duality of *Mind in itself* and *Things in themselves*." ¹

But even if we admit all this, how far does it carry us? Does it justify the terms in which Ferrier speaks of his system as a demonstrative science of the universe? Fraser's answer may best be taken from the more mature and authoritative statement of 1868. Ferrier's philosophy, he says in effect, is an abstract theory of the possible, and offers no passage from the possible to the actual. What we are given is "a regulative conception of what Being must include in its meaning, if it is to have any meaning. . . . Under it we can say only that *if* anything exists, it must be combined with consciousness. . . . It determines what God and Matter, *if they exist*, must be; but it does not prove that they *actually* are. . . . Ferrier's is properly a system of *hypothetical* Physics, Pneumatology and Theology. . . . Its purely abstract deductions in regard to Possible Being, from the primary conception of what *intelligible* Being must be, leave a gulf between it and the contingent or changing universe of persons, and of sensible things of which persons are conscious—as these are actually given in historical succession, and as they illustrate the operation of Power or Cause. . . . Whether these actually be only One, or whether there be a plurality of Egos, conscious of phenomena, is a question below the level of extreme generality which this speculation affects." ² He returns to emphasise the entire absence, in Ferrier's system, of the conception of Power or agency and of any reference to the temporal and changing character of existence. But it is through the fact of will that "the unity of Being or conscious intelligence is found, experimentally and morally, to be broken up into a plurality of conscious Powers". Hence he concludes that Ferrier's conception is "*the step into philosophy* rather than a philo-

¹ *Macmillan's Magazine*, vol. xvii., pp. 200, 201.

² *Ibid.*, p. 202. With this criticism we might compare a remark made in a general reference in one of his earliest essays: "Contemplating the framework which contains knowledge more than the knowledge which the framework contains, the mind is apt to lose a direct acquaintance with the actual and the individual, in the splendid theory of the possible" (*Essays*, p. 67).

sophy of the Universe. The philosophical and moral interest is in the next step. Is an explanation of the Universe, in its evolutions, logical and contingent, and of our true law and ideal of life in it, possible by help of this definition of its essence? Does the definition eliminate mystery?¹ . . . A fruitful speculation of Being in its *essence* should be the introduction to some philosophical interpretation of Being in its *actual physical and moral order*. . . . To recognise that the essence of the Universe is 'the being conscious of objects' is not to unfold the Divine Thought of which the contemporaneous and successive manifestations of objects are the expression; nor does it even put us on the way to this, unless logical links can be found which connect the bare conception of conscious intelligence with the entire objectivated thought. The glimpses possible in this mortal state are not likely to discover these."

In this criticism Fraser seems to touch with a sure hand the real weakness of Ferrier's system of 'necessary truth'. As he had said in another connexion in an early essay, "He who is elaborating a science of *what must be* in thought is in danger of excluding from his regard not a little of *what is* in man".² Ferrier's system with its elaborate apparatus of propositions and counter-propositions is, in effect, the incessant repetition of a single abstract theorem—true and, as I understand it, immensely important, but, as Fraser says, only a preliminary to the real task of philosophy which is to interpret the actual facts of nature and history. Hence, in spite of all Ferrier's gifts of exposition, the continual sense we have throughout his volume of waiting for him really to begin, and the feeling of disappointment with which we arrive at the end without emerging from the charmed circle of the possible and the necessary. Fraser's position here is an anticipation of his attitude to the Idealism, somewhat similarly based, of T. H. Green, a decade later. Of the general movement of Anglo-Hegelian thought his criticism was, as it had been of Ferrier, that moving by preference in the region of abstract necessity, it left too many concrete problems unresolved, or even unconsidered, to make it a reasonable human creed.

¹ This point is elaborated in the earlier essay. The universal correlation of existence and consciousness does not of itself make the knowledge possessed by the finite ego "self-contained or absolute". When we try to make it so, we still find that it is embarrassed by contradictions which it cannot reconcile, and loses itself therefore in the end in mystery. Cf. *Essays*, p. 314 *et seq.*, and pp. 339-340.

² *Essays*, p. 166.

During the fifteen years that followed the appearance of the *Essays* in 1856—the first fifteen years of his university professorship—Fraser's philosophical output was limited to the expanded Introductory Lecture, published as *Rational Philosophy in History and in System* (1858), four articles in the *North British Review*, between 1860 and 1865, and three shorter papers in *Macmillan's Magazine* between 1862 and 1868. Of these the paper on Ferrier, from which I have just quoted, and the long article on Mill's *Examination of Hamilton*, previously referred to, are the most important. In closeness of thinking and vigour of style they are among the best things that Fraser wrote. The article on Spinoza, though looser in texture, is a characteristic handling of "the prince of systematic divines".¹ Fraser had said in one of the early essays that "the real significance of the theology of Spinoza is the great metaphysical question of this age," and he returned to the subject in his Gifford Lectures. We note again in this article the already familiar classification of "three great types of philosophical teaching," here named "the sensuous or secular" ("which finds its bond of cohesion of all beliefs in the laws of mental association, and the limit of all legitimate belief in the physical experience of this earthly life"), "the speculatively or scientifically rational," and "the practically rational".² Spinoza is taken, with Hegel, as representative of the second type. Two of the remaining articles³ indicate his increasing preoccupation with Berkeley and were the immediate occasion of his being invited by the Clarendon Press to edit the *Collected Works*.

Of Fraser's labours on Berkeley it is not necessary at this time of day to speak at length. His edition is a monument of loving care and sympathetic exposition and his *Life* was the first adequate presentment of Berkeley's fascinating personality and romantic career. He was fortunate enough to unearth the Commonplace Book, that wonderfully living record which enables us to trace the very germination of Berkeley's new conception, its first rough formulation sometimes indistinguishable from Hume, and its speedy development by means of the doctrine of "notions," into the constructive theory which we know. And Fraser's own interpretation of Berkeley's philosophy, reading it in the light of this development and of Berkeley's final utterances in *Siris* (which was as good as given to the world anew in this

¹ *North British Review*, vol. xxxviii., p. 465.

² *Ibid.*, p. 485.

³ "The Real World of Berkeley" (*Macmillan's Magazine*, 1862), and "Berkeley's Theory of Vision" (*North British Review*, 1864).

edition), made it a living factor in the constructive thought of the later nineteenth century, to a greater extent than had ever been the case in Berkeley's own lifetime or the age that followed. Fraser sought, as he says in the *Biographia*,¹ "to present his 'idealism' as a philosophy of the Active Causation with which the universe is charged rather than as Immaterialism, which had been misinterpreted and then ridiculed. . . . For more than a century the world had in consequence hardly taken this theistic philosophy seriously. He had been treated as a sceptic who refused to trust his senses; an unpractical dreamer, who discarded as unreal all that we see and handle, calling that illusion which every man at every moment of his life is obliged to treat practically as something real."² . . . I found in his works, taken collectively, germs of theistic philosophy more fruitful than elsewhere in our insular literature." Or as he put it more precisely in 1871 in the finely wrought chapter on Berkeley's Philosophy which concludes the *Life and Letters*: "The Berkeleian philosophy is, in its conception if not in its execution, a reasoned exposition of the dependent and relative character of the reality and causality of the material world".³ Looking thus broadly at Berkeley's general drift and intention, Fraser is no doubt inclined to minimise the empiricism and nominalism in which the theory had its starting-point and which had their inexorable historical consequences in Hume. And when he suggests the practical agreement of Berkeley and Reid as 'immediate' Realists in common opposition to the hypothetical or mediate Realism—the representative perception—of the majority of philosophers, he can easily be shown to ignore the ultimately more important speculative difference between the two positions; for 'the ideal theory' of the representationists—the doctrine that we immediately know only our own states—is the very foundation of Berkeley's immaterialism. Naturally Fraser was not ignorant of points like these, and he never pretended that Berkeley's theory is throughout consistent with itself. He points out weaknesses and defects of statement as he proceeds with his exposition; but he is mainly concerned to extricate from the detail of their particular historical setting those permanent contributions to a true reading of the universe which he believed that he found in Berkeley. And in his

¹ *Biographia*, p. 189.

² Reid and some of his earlier followers were notorious sinners in this respect. Fraser quotes an amusing tirade by Beattie (*Life and Letters*, p. 367).

³ *Ibid.*, p. 369.

hands Berkeley's thought certainly became immensely stimulating, not only as a pedagogic instrument in the academic class-room, but also, as I have already said, in the general advance of British philosophy in the latter half of the nineteenth century. He offered the 'spiritual realism' of Berkeley as a wholesome corrective to a generation which the very advance of scientific knowledge and the inrush of far-reaching theories of evolution predisposed to materialistic explanations. And unable himself to accept the more pretentious idealism of Germany, his treatment of Berkeley, and especially of Berkeley's progressive realisation of the conceptual and rational elements in experience, suggested the ground which the two theories occupy in common.

Fraser's work as editor and biographer of Berkeley led him back by a natural sequence to similar work on Locke, the great fountain-head of English philosophy. In this case the interest is more purely historical, for obviously there could be no question of using the *Essay* as a modern evangel. But here too the work was inspired by genuine sympathy and bore fruit accordingly. Locke is loose in his terminology, incurably diffuse and generally wanting in speculative depth; but he makes amends by his fine enthusiasm for truth, by the incorruptible honesty of his report, the broad humanity of his spirit, and not infrequently the robust and racy English in which he sets forth some favourite theme. Fraser was attracted to him also by the transparent simplicity of his character, by his polemic against abstractions, his ever-present sense of the limitations of human insight, and the practical certainties on which he is content to rest. "The candle that is set up in us shines bright enough for all our purposes. . . . Our business here is not to know all things, but those which concern our conduct." Locke had come to be treated by historians of philosophy and others exclusively as the progenitor of a thoroughgoing sensationalism and scepticism. The historical issues of certain sides of his thinking had tended to obliterate his own distinctive positions, and there had been little fresh and independent study of his work. This point of view had been strikingly exemplified in Green's elaborate criticism of Locke in his Introduction to Hume in 1874. To Green, Locke is simply a factor in the philosophical development which culminated in Hume, and although he had undoubtedly studied the *Essay* with care, Green would certainly have been accused by Locke of "sticking in the incidents," and deliberately ignoring the main design. Green's work has its own value as a chapter in the history of ideas, but he shows no interest in realising

Locke's theory as a whole as it existed historically in its author's mind. His criticisms in consequence are often unfair and even perverse. Fraser, on the contrary, sets himself expressly to develop Locke's comparatively homely 'way of ideas' in its author's own spirit, instead of multiplying criticisms which involve a completely different point of view and belong to another epoch of thought. He is remarkably successful in keeping before us Locke's dominant mood and the dominant motives of his inquiry; and in the *Prolegomena* to the *Essay* it is not too much to say that he effected a critical restoration of the original lineaments of the Lockian philosophy which was both valuable and timely.

During the years of his absorption in Berkeley—which may be said to have lasted through the '70's—Fraser's philosophical individuality was to a large extent sunk in that of the thinker whom he so attractively expounded. He used Berkeley as the vehicle of his class-teaching; and speaking for his students of that decade, I think we all assumed that he was a Berkeleian, without suspecting how much of Fraser himself there was in the Berkeleianism which we imbibed from him. The general public held the same opinion—not unnaturally, seeing that, with the exception of a few magazine articles in the '60's, mostly anonymous, he had published nothing of the nature of a personal statement for more than twenty years. But in the concluding chapter of the *Blackwood Berkeley*, in 1881, the philosophical issues—latent or prefigured, as he says, in Berkeley's various works—are at last detached from that specific setting and treated broadly as they present themselves in modern thought. We meet again the familiar triad, 'Nescience, Omniscience, and Final Faith,' but formulated now with fuller knowledge and with the conviction that comes from a riper experience. In his class-lectures during the '80's, which were influenced by his contemporaneous work on Locke, he came to develop his own position more independently than in the preceding decade. But the short chapter referred to remained, so far as the larger public of readers was concerned, the fullest indication of his settled conclusions till his appointment to the Gifford Lectureship in 1894 forced him to put into shape for a wider audience the results of his life-long reflections. For a proper appreciation of the manner as well as the matter of his thought, the *Philosophy of Theism* should be supplemented by the meditative re-statement of its main position so effectively interwoven with the life-chronicle of the *Biographia Philosophica*.

The lectures open with an impressive review of the types

of speculative thought that have historically divided philosophers. The basis of division here chosen connects itself with the three supposed facts—self, the material world, and God—which give us the traditional threefold division of metaphysical science. According as over-emphasis is laid upon one or other of the three, there results, (1) a system of universal materialism, (2) an immaterialism or pure subjective idealism, which he here calls ‘Pan-egoism,’ or, (3) the various schemes of Pantheism, Impersonalism or Acosmism, which merge the world and the Ego in God. The second conception, reminiscent of Berkeley, is presented, however, rather as an easy solvent of confident materialistic dogmatism¹ than as constituting an actual danger of speculative thought or even as having ever formed an accepted philosophical system. Hence there remain Materialism and Pantheism as the two effective monistic alternatives, to which Fraser adds the attitude of “universal nescience,” as represented by Hume. Hume and Spinoza, he says in his Preface, were seldom absent from his mind. His power of sympathetic reproduction enables him to do full justice to the genuine thought-motives which give these positions their seemingly perennial vitality. The chapter on Materialism, for example, recalls at times the sombre grandeur of the Lucretian mood or the sweep of Tennyson’s “Vastness”. But materialism does not delay him long; it lacks philosophic status, however great may be its practical influence on minds just awakening to reflection. Modern monism inevitably assumes a pantheistic form. And so we are led back to the familiar triad, the two extremes and the *via media*. “Pantheistic Reason, Universal Nescience and Theistic Faith are three ideals now before Europe and the world, with some educated and more half-educated thought oscillating between the first and the second. Which of these three is the most reasonable final conception—the fittest for man in the full breadth of his physical and spiritual being?”²

In his previous writings Faith, as necessarily involved in our human attitude towards the ultimate problems of existence, has been chiefly insisted on by Fraser in contrast to the apparent claims of Absolutism to banish mystery and present a completely coherent system of reality. But in his

¹ It will be remembered how it is similarly introduced in the *Bestimmung des Menschen*, where Fichte passes from materialism through subjective idealism to a final position which also, like Fraser’s, invokes a “moral faith”.

² *Philosophy of Theism*, p. 85 (second edition). Cf. i., 156, in first edition.

final philosophical deliverance this contrast, though still present, is a minor issue; up to a certain point, there is even a disposition to minimise such differences in face of a common foe. The main controversy is with the forces of utter scepticism and agnostic negation; and Faith—now expressly qualified as ‘theistic faith’—is presented by Fraser, not as a principle by which we eke out the defects of knowledge or even as a principle on which we fall back when confronted by ultimate contradictions, but as the fundamental presupposition of all knowledge and reasonable action—the ultimate hypothesis which stands between us and a scepticism in which the very idea of knowledge or of truth would disappear. This is the central argument developed with much sustained power in the *Philosophy of Theism*, and repeated at every opportunity in his later writings as the sum and substance of his philosophic message. Universal scepticism is admittedly incapable of refutation, for every argument must have a basis to start from; but, as Hume himself says, “whoever has taken the pains to refute this total scepticism has really disputed without an antagonist”. “The great subverter of Pyrrhonism or the excessive principles of scepticism, is action and employment and the occupations of common life. A Pyrrhonian must acknowledge, if he will acknowledge anything, that all human life must perish, were his principles universally and steadily to prevail. All discourse, all action, would immediately cease; and men remain in a total lethargy, till the necessities of nature unsatisfied put an end to their miserable existence.” All argument is entitled to take as its datum or starting-point our conduct in ‘the occupations of common life,’ and, above all, the procedure by which the sciences are built up. Philosophical proof, as Kant saw, is always by reference to ‘the possibility of experience’. The question is, What are the assumptions involved in our habitual activities, cognitive or practical? On what hypothesis can they be explained or justified? And Fraser’s reply is—only on the supposition that we are living in a cosmos, not a chaos. Our reliance on the laws of nature—what is called the uniformity of nature—implies an ultimate trust, the belief that the Power at work in the universe will not put us to permanent intellectual confusion. Faith in the continuance of natural order is faith “in the reasonableness or interpretability of nature,” and “is not this interpretability of nature another expression for its innate divinity—its final supernaturalness?” It is in fact (he answers his own question) a “moral trust”; “faith in the laws of nature is unconscious faith in God omnipresent

in nature".¹ It was in a similar sense that Descartes made the veracity of God the principal condition of all certainty, so that, as he said, "without the knowledge of God it would be impossible ever to know anything else". So Fraser says, in the *Biographia*, "I gradually came to think of this theistic faith, not as an infinite conclusion empirically found in finite facts, but as the necessary presupposition of all human conclusions about anything".² And it is to be noted that, like Descartes, Fraser interprets the 'truthfulness' of God, evidenced in the stable order of nature, as more than mere intellectual consistency—as rooted, indeed, in moral perfection. Nothing less, at all events, is a sufficient guarantee of the confidence with which we adventure upon the future. This is perhaps most plainly put in the *Biographia*: "The Supreme Intelligence, merely as such, might be non-moral, or even immoral, in action. So I must postulate Moral Reason or perfect Goodness—with all that is implied in perfect Goodness—operative at the centre of the universe. Otherwise the Universal Mind revealed in and through my experience, and through collective human experience, *may* deceive me. . . . Supreme Intelligence *may* be diabolic instead of perfectly Good; or may at best operate without purpose, either good or evil, and so in the end chaotically. . . . So on the whole I concluded that the theistic presupposition of omnipotent and omniscient Goodness in the heart of the universe was implied in the practical reliability of human experience."³

The question of the ground of induction, it is apparent from the autobiographical record as well as from other indications, occupied a large place in Fraser's reflections. It is prominent in Hume, and Hume was ever a favourite companion; it is from Hume's treatment that his own may be said to start. Both emphasise the impossibility of demonstration, and the consequent element of 'venture' in the procedure; but Fraser translates Hume's psychological 'custom' into a metaphysical 'faith'. And if science itself thus rests on an ultimate trust, and involves a faith-venture, how can we justify the ordinary Agnostic attitude? "The agnosticism that retains physical science is not really a protest against faith; it is only an arrest of faith at the point at which faith advances from a purely physical to the moral and religious interpretation of the universe. Is an arrest *at this point* justified by reason or by the experience of

¹ *Philosophy of Theism*, pp. 114-116 (second edition).

² *Biographia*, p. 188.

³ *Ibid.*, p. 304.

mankind? Is the religious 'leap in the dark' more irrational than the inductive?"¹ These sentences from the conclusion of the lecture on Hume sufficiently indicate the line of further advance. The parallel between scientific procedure and the moral and religious life of man is pressed home by Fraser with great force and felicity. The initial trust of the man of science is progressively verified or justified by every step he takes in the intellectual conquest of the world; but, however legitimate his confidence, at no conceivable point in that progress, or in any future progress, can the thesis be said to be logically or scientifically *proved*. So with the deeper ethical faith. As in the case of the scientific postulate, it is progressively verified in ethical and religious experience, but never lifted into the region of scientific demonstration. In either case, to demand proof as the preliminary to action would mean to be cut off from the possibility of verification, and, indeed, to be condemned to absolute inaction and sceptical despair. And if the belief in actual law is not strictly a conclusion from the facts, but a governing idea in the light of which we find the facts interpretable, it cannot be an objection to a teleological interpretation of the world that the idea of purpose is brought with us to the facts, if the teleological point of view enables us to reach a better understanding of the whole. Why should we stop short with a merely physical interpretation of the world, when there are moral or spiritual facts which are only interpretable if we regard the universe as "at last the supernatural manifestation of supreme moral purpose"? The larger moral faith includes (and is the real foundation of) the more meagre physical faith; and though neither is in a strict sense proved, both are justified by their works. Such is the ethical teleology or 'theistic faith' in which Fraser finally casts anchor.

The facts of our moral experience thus form the real fulcrum of Fraser's thought and become his key to the whole enigma of the universe. 'Man supernatural,' which stands as the title of one of the lectures,² might serve as the motto of the whole philosophy expounded in the two series. "I find," he says, "the signal example of the divine in the spiritual being of man. . . . Conscious life is the light of the world. . . . But it is in man's life as a moral being, in the responsible exercise of deliberate will, not in man as

¹ This quotation is slightly changed in expression in the second edition. Fraser was much given to changes in proof-reading, which were not always improvements, and I have here retained the earlier version (*Phil. of Theism*, i., 219).

² The title is modified, but again, I think, not improved, in the second edition.

purely intellectual . . . that man rises *as a person* above all that is physical and impersonal, that the divine principle at the heart of existence seems to be illustrated in him."¹ For Fraser, as for Kant, freedom is the implicate of duty. Both speak of freedom sometimes as a postulate and sometimes as a fact,² but both are agreed in refusing to treat it as a subject of argument. Fraser, following out a line of thought already familiar to him from Berkeley, insists that only in voluntary agency do we touch the real meaning of causation. As he strikingly puts it, "the final meaning of cause is reached through conscience".³ Natural causes are only metaphorically called causes, if by cause is meant agency, real power to originate the effect. The laws of nature are only rules of the connexion of phenomena—a divine sense-symbolism, as he is fond of saying—and thus the changing world of things can be no more than the instrument of active will or conscious purpose. This conception of the secondary or caused causes of natural science plainly does not depend for its truth upon the too purely subjective idealism of the Berkeleyian theory. It depends only upon the distinction between persons and things. The former alone really *act*, that is to say, originate or create, and they alone, therefore, are responsible for their actions.

This self-determination of which we are conscious in responsible action justifies the supposition that the universe in which we find ourselves is the expression of a Person, not of blind physical forces or of any merely impersonal principle. And the contents of the moral ideal, which man recognises as the supreme law of his life, represent the last word of human insight into the nature of the Power with whom we have to do. In this sense, Fraser adopts and enforces the formula, *Homo mensura*. "The Macrocosm in analogy with the microcosm—the supreme power in nature in analogy with what is highest in man, the *homo mensura*, when the *homo* means the moral and spiritual as well as the sensuous man—in this analogy, for which the contents of consciousness supply the materials, we seem to have the best light within man's reach for the true philosophy of the universe."⁴ It is just on the basis of this personal experience, moreover, that Fraser feels himself obliged to part company with all

¹ *Phil. of Theism*, i., pp. 249, 252, 255 (first edition).

² "The Idea of Freedom is the only one of the Ideas of Pure Reason whose object is a thing of fact and to be reckoned among *scibilia*" (Kant, *Critique of Judgment*, section 89 (Bernard's translation)).

³ *Phil. of Theism*, i., p. 270 (first edition).

⁴ *Ibid.*, p. 271.

purely monistic theories. The metaphysical thirst for unity tempts us to resolve all finite beings into modes or channels of a single Substance or Absolute, but the moral experiences of responsibility and remorse prove the impossibility of treating persons in that light. The creation of such independently originaive centres may be incomprehensible, but their existence is incontestable; and to seek to override our most ultimate certainties because they do not accommodate themselves to a speculative theory of reality is emphatically to begin philosophising at the wrong end. Unrealised ideals and the existence of that which *ought not to exist* are incompatible with a universe in which everything is necessitated; but they are of the very essence of moral and religious experience and must find room, therefore, in the world of theistic faith.

By most thinkers the existence of evil is probably considered to be the main difficulty which theism has to face; it is treated by Fraser himself in his concluding lectures as 'the great enigma of theistic faith'. But his method of handling the difficulty converts it into a source of strength for his own conception; it is seen to be an essential feature of the universe as he conceives it. For what is the alternative? Is it not "a universe of non-moral *things*, to the exclusion of individual *persons*, who, as moral beings, must be *able to make themselves immoral*"? . . . "God cannot make actual what involves express contradictions, namely, an individual person who, because under an absolute necessity of willing only what is good, is not a person—if individual personality involves morally responsible freedom. Does not a *necessitated* absence of sin and sorrow mean the necessary non-existence of persons? And is this the highest ideal of the universe that man even can form? Is not . . . a world that includes persons better than a wholly non-moral world from which persons are excluded, on account of the risk of the entrance into existence of what ought not to exist, through the personal power to act ill that is implied in their morally responsible agency?"¹ As a matter of fact, the universe in which we find ourselves seems² to have as its chief end the moral probation and education of man. Such

¹ *Phil. of Theism*, ii., pp. 175-177.

² "When regarded," he is careful to add, "at the highest *human* point of view; for I am far from supposing that it would seem only this, or not much more than this, at a higher point of view, or that if man could become divinely omniscient the whole difficulty might not disappear in the light of perfect reason" (ii., 175). "The humanly regarded purpose," he says again, p. 279.

a conception of the universe, it may be argued, is compatible with a "theistic optimism" deeper than that of Leibniz, because it neither minimises the absolute distinction between right and wrong, nor weakens in any way the central fact of human responsibility.

The freedom inseparable from personality certainly introduces into the universe an element of real contingency—of adventure, as one might say—capable of frustrating the apparent purpose. "What," he asks, in the lecture on 'Progress,' "if all individual persons were to maintain themselves in permanent resistance to their divine ideal? May not individual persons, with their implied power of initiating evil, gradually make the world of persons a world in which *all* individual persons are wholly and finally bad? What then becomes of the theistic or optimist conception? So far as it consists of persons, the universe would then have become a universe of devils."¹ No answer is given in the context. The theoretical possibility of such an issue is admitted, but it is apparently one function of theistic faith to inspire confidence in a very different consummation. The *Biographia* strikes a more personal note, and enables us to see at least the tenor of his own thoughts. "Instead of the appalling gospel attributed to Calvin, of a capricious selection of a few persons to be made good, leaving others (or even one person in the universe) to go on increasing in wickedness for ever—may it not be that, after due suffering in another life, proportioned to the history of the life here, all are in the end made spiritually good; or, if not thus, that the free agency of probation in which they lived here may be continued, under increasingly favourable conditions, after physical death—education by future as well as by present suffering—remedial not revengeful—through all which, under the divine economy, *all* persons are, as their endless lives advance, sooner or later gradually raised out of the life of sense into the divine life of the spirit and moral likeness to God? I do not know that ecclesiastical authority can produce sufficient reason for extinguishing this hope; or that it can show that the perfect Goodness of God is consistent with *any* persons who are kept in existence being endlessly and increasingly wicked; or that final elevation of each into goodness is too arduous an achievement for Omnipotent Power."²

The question of Immortality, introduced here by implication, is also dealt with more directly in the same closing chapter. "*Must* moral beings, who have once entered into

¹ *Phil. of Theism*, ii., pp. 197-198.

² *Biographia*, pp. 320-321.

self-conscious existence, retain their self-conscious individuality for ever?" "I could not find," he replies, "that this needed to be presupposed, in the way the theistic presupposition needed to be presupposed—i.e. as the indispensable foundation of the universal order on which the sanity of life depends". The considerations that point, if not to a never-ending at least to a continued existence after death, are rather to be drawn from "the seeming moral chaos on this planet on which so many persons live wicked lives, and on which so many sentient beings seem to suffer unjustly or to be inequitably rewarded". But "as to the posthumous life"—so he concludes—"may we not leave our terrestrial embodiment in theistic faith and hope, departing like the patriarch, when he went out, 'not knowing whither he went'; assured at least that we live and die in a universe that *must* be fundamentally divine, and in which therefore all events, death included, must co-operate for the realisation of divine ideal Good to those who seek the Good."¹

Such are the large and gracious lineaments of the Faith in which Fraser lived and died, and which he offers as the substance of his philosophical teaching.

By the majority of philosophers an appeal to Faith is regarded with incurable suspicion. But that is due to the historical fact that it has so often meant turning one's back upon reason in order to "swallow whole" (in Hobbes's irreverent phrase) the dogmas of an infallible Church or an infallible Book. But although Pascal is one of Fraser's favourite authors, there is no echo in his teaching of the notorious *il faut s'abêtir*, and although he is fond of describing our ultimate human attitude as a "faith-venture," the suggestions of the terms have nothing to do with Pascal's famous wager. And again we have seen how Fraser dissociated himself from the Hamiltonian polemic against reason and Mansel's agnostic defence of theology. The fundamental faith on which Fraser builds might, indeed, fitly be described as *faith in reason*—"the confidence of reason in itself," as Lotze calls it—with which alone we can beat back total scepticism. Lotze also, it may be noted, in speaking of Descartes's appeal to the veracity of God, adopts for himself the underlying thought, which Fraser elaborates, "that in the immediate assurance which we feel of the significance of the moral Idea lies the security also for the truth of our knowledge".² The recourse to faith is apt to be branded as a sign of intellectual indolence, but in Fraser's

¹ *Biographia*, pp. 317-321.

² *Logic*, p. 417 (English translation).

case it is due, as has been well said, to "an intense appreciation of the sceptical difficulties which beset the entire metaphysical question"; it is precisely because he realises ultimate doubts which more dogmatic thinkers neglect, that he insists on the ultimate faith which is inwoven in all their systematic constructions, namely, the trustworthiness of reason. It is, as he says, "the faith that is at the root of all other faiths". . . . "The trustworthiness of my faculties, and so the physical interpretability of the universe, presupposes the action of morally perfect spiritual Power at the heart of the Whole. . . . The existence of God is presupposed in the reliableness of experience. If I do not, at least tacitly, indulge in this moral faith, I cannot even make a beginning."¹ The lower degree of this faith—physical or cosmic faith—is necessary if we are to live at all; in its higher form of moral and religious faith—often more specifically designated theistic faith—it is necessary if we are to live the good life. And here Fraser quotes Coleridge's well-known saying that while "it is not in our power to disclaim our nature as sentient beings, it is more or less in our power to disclaim our nature as moral beings".² The man who thus deliberately disclaims his higher nature is inaccessible to argument, just as that imaginary being, the total sceptic, is secure against refutation. The condition of this moral faith is the will towards the good; but given such a will, every step towards the ideal is a verification of the faith which inspires it. The law of the moral, as of the physical, world is—Act on this faith and you will find it true. "If any man do the will of God, he shall know of the doctrine." In this sense Fraser's solution is ultimately a practical one, and shows some affinity with the Activism of James, Eucken and other contemporary writers. "Not through intellect alone . . . but in and through the constant exercise of all that is best and highest in him—through the active response of the entire man, while still in an incompletely understood 'knowledge'—it is only thus that it is open to man finally to dispose of his supreme problem with its mysterious intellectual burden. The final philosophy is practically found in a life of trustful inquiry, right feeling, and righteous will or purpose—not in complete vision."³ It is a faith which "may be reasonably sustained by what one might call *spiritual motive* as distinguished from *full intellectual insight*".⁴

¹ *Phil. of Theism*, ii., pp. 19-20.

³ *Ibid.*, p. 133.

² *Ibid.*, p. 33.

⁴ *Ibid.*, p. 130.

But the complete moral sceptic is probably as imaginary a being as the total sceptic in an intellectual reference, and Fraser rightly builds on normal human nature or rather "man in the fulness of his spirit,"¹ "man at his best and highest".² Moral or theistic faith, accordingly, is not something which has to be demonstrated into existence: it is a datum in the case. "We do not need to bring into existence by reasoned proofs the already operative faiths which sustain religious, moral, æsthetical, scientific life, or common working life—we cannot bring these into existence in the form of conclusions logically evolved from premises. They arise spontaneously in men's minds as the common root of their growing mental experience." The faith "already operates before it is reasoned out philosophically".³ This is, indeed, the sense of his whole argument, as he sums it up in the concluding lecture of his second course: "Theistic or ethical faith and expectation is the indispensable basis and rationale of human life—at once its silently accepted preliminary, and the culmination of the deepest and truest human philosophy".⁴

In basing his metaphysical faith on the certainties of the moral life Fraser's procedure has most in common with that of Kant. He was himself aware of the affinity.⁵ Kant also casts anchor in a moral faith to which he denies the status of knowledge. His emphatic phrase that he must 'abolish knowledge to make room for belief' has led many to accuse him of bringing in by a back door the very metaphysical doctrines which had been dismissed in the first *Critique* as unable to stand the scrutiny of reason; and, thanks to the sharp distinction drawn between the objective certainty of the one and the merely subjective certitude of the other, his doctrine became in the sequel one of the fountain-heads of modern Agnosticism. But although he did not himself weld his doctrine into a coherent whole, Kant's procedure in both *Critiques* is exactly the same. He is trying to state the conditions of the possibility of experience—in the first *Critique*, the presuppositions of scientific knowledge (mathematical and physical science), and, in the second, the presuppositions of moral action; and, to place the one on a different footing from the other is a purely arbitrary procedure. Fraser's argument is essentially a transcendental

¹ *Phil. of Theism*, ii., p. 16.

² *Ibid.*, p. 34.

³ *Ibid.*, p. 38.

⁴ *Ibid.*, p. 274.

⁵ *Cf.* ii., p. 15: "That the final interpretation of the universe is reasonably taken under a moral or theistic conception, not a wholly physical one, virtually coincides with Kantian philosophy".

proof of the same type—an argument from the possibility of experience—but he does not, like Kant, confer a fictitious independence on the merely physical experience, and treat (or appear to treat) the intellectual and the moral as two non-communicating spheres. On the contrary, as we have seen, his consistent attempt to base the physical faith on a deeper moral trust is a direct assertion of the unity and continuity of our experience. “The universe,” he says, “is seen to be too mysterious for us to interpret it, even in part and physically, unless we submit understanding to the authority of human nature as a whole, which includes man emotional, and man acting supernaturally in volition, as well as man thinking scientifically, and at last baffled in so thinking.”¹ Faith, in the sense in which he uses the term, is equivalent to “the larger reason, if one chooses so to call it—reason as authoritative, as distinguished from the purely logical understanding.”²

This appeal to ‘the larger reason’ or to experience in its integrity brings Fraser into touch with the ‘gnostic’ Idealism against whose apparent claims he had consistently protested since his early Hamiltonian days. He recognises now the extent of positive ground they held in common, and he even suggests in one place that it may be a question of names whether man’s final attitude should be called knowledge or faith. “To call it ‘knowledge’ seems to claim too much, as long as there must be an inevitable remainder of mystery. To call it faith may seem to mean that it is empty of objective rationality.”³ Between “Hegelian speculation humanised” and the philosophy of faith there may thus possibly be no radical divergence. But this *rapprochement* depends on the abandonment of inadmissible pretensions. If Hegelianism claims that it conserves the actuality of the world in time and of responsible human action, that is well; but how is the time-process related to timeless Reality, and how is the real causality of finite persons reconcilable with their creaturely status and with the eternally complete divine Purpose? “It is difficult to see,” he says, “that modern thought of the Hegelian sort has done much towards translating these two mysteries—the universe in time and morally responsible personality—out of the darkness in which preceding philosophies have had to leave them, and in which it seems that they must remain—unless man is to become God.”⁴ Attempts at demonstration tend to leave us with

¹ *Phil. of Theism*, ii., p. 6.

³ *Ibid.*, pp. 138-139.

² *Ibid.*, p. 129.

⁴ *Ibid.*, p. 135.

“an abstract universal consciousness or abstract system of rational relations”; on the other hand, if we refuse to surrender the finite facts and maintain that they are still ‘somehow’ comprehended and harmonised in the ‘organic unity’ of God and man, do we get more than “an appended verbal articulation of the old difficulties”?¹ Is this more than an assertion of faith at last? Faith, indeed, is inevitable, in Fraser’s view, at the end no less than at the beginning of our philosophic venture. ‘*Omnia exeunt in mysteria*,’ as he so often quotes. Space and time and the unending regress of physical causation—ideas which we handle safely for all the practical purposes of life—have always led the candid thinker to this confession. “The understanding, measuring by sense and imagination, tries to transcend itself, and in doing so is always lost at last in the Infinite Reality. How to reconcile finite places with the Immensity in which place seems lost, or finite times with the Eternity in which duration seems to disappear, is the mystery of an experience which, like ours, is conditioned by place and time, in a way that must always leave thought at the last under a sense of intellectual incompleteness and dissatisfaction.”² Thus, in spite of the momentary approximation, we perceive a fundamental difference of temper between Fraser and all forms of Absolutism. From the latter the acknowledgment of an unexplained remainder of mystery appears to be wrung, as it were, unwillingly, under the pressure of controversy; to Fraser, on the contrary, the ultimate mysteriousness of the universe is the thought most intimately present from the beginning to the end of his reflective life. It determines his speculative mood. He sees in it the inevitable condition of our middle state—a condition, moreover, which has to be regarded not merely as intellectual defect but as the instrument of moral discipline, and as fostering the reverence and humility which are the conditions of spiritual health.

¹ *Phil. of Theism*, p. 137. ² *Ibid.*, i., p. 177 (second edition, p. 97).

II.—THE MEANING OF CAUSALITY.¹

BY J. ELLIS McTAGGART.

IN this lecture I propose to discuss what is meant, and what should be meant, by the word Causality. The question whether Causality, defined as we shall find reason to define it, does occur in the universe, will not be discussed. Personally I do believe that various existent realities in the universe are connected with one another by the relation of Causality, but the arguments which lead me to this conclusion would require more than a single lecture in which to explain them.

We must begin by considering what characteristics have, at different times and by different people, been considered as essential to causality. There are, I think, seven such characteristics, of which the first two are universally admitted to be essential to causality, while the other five are not.

In the first place, it would, I think, be universally admitted that causality is a relation of Determination. If A is the cause of B, then the existence of A determines the existence of B.² And it determines it in some way which does not hold between all things in the universe, so that it is possible for A to be the cause of B, and not the cause of C. We must, that is, give causality such a meaning that it is possible to say that the beheading of Charles I. was the cause of his death, but that it was not the cause of the death of Julius Cæsar.

What sort of determination is this? It is a determination of Implication. The cause implies the effect. What then do we mean by implication? I am using implication in what I believe to be the usual sense. I should say that implication is a relation between propositions, and that P implies Q when, if I know P to be true, I am justified by

¹ Henry Sidgwick Memorial Lecturer for 1914, delivered at Newnham College, Cambridge.

² It is not so universally admitted that the existence of the effect determines the existence of the cause. This will be discussed later.

that alone in asserting that *Q* is true, and, if I know *Q* to be false, I am justified by that alone in asserting *P* to be false. That is, the beheading of Charles I. implies his death, because, if I knew that he had been beheaded, I should be justified by that alone in asserting that he was dead, and, if I had known that he was not dead, I should have been justified by that alone in asserting that he had not been beheaded.

Strictly speaking, as we have seen, implication is a relation between propositions, or truths, and not between events. But it is convenient to extend our use of it, so as to say that, if one proposition implies another, then the event asserted in the first implies the event asserted in the second. It is in this sense that we say that the cause implies the effect.

It must not be supposed that implication is a subjective or psychological relation only. For we have not said that one event implies another because our knowledge of one causes us to assert the other, but because our knowledge of one *justifies* us in asserting the other. And this justification must be due to relation between the events themselves, and not merely to a relation between our thoughts of them.

In the second place, the relation of causality is always held to be a relation between realities which exist. We should not say that the definitions and axioms of Euclid were the cause that two of the sides of a triangle were longer than the third side, although this is implied in the definitions and axioms. For neither the definitions and axioms nor the proposition about the sides *exist*. But if an existent figure—some particular drawing or some particular piece of paper—was a triangle, we should, I think, naturally say that *its* triangularity caused two of its sides to be longer than the third. Again, we should not say that the law of the tides was partly caused by the law of gravitation, but we should say that the height of the sea at a particular time and place had the attraction of the moon as part of its cause.

Again, the beheading of an English king in the eighteenth century implies the death of that king. But we should not say that it caused it, because, in point of fact, no English king was beheaded in the eighteenth century, and so the relation of implication is not between terms which exist. All that we should say would be that, if a king of England had been beheaded in the eighteenth century, it would have caused his death—that is, to assert that, if the terms had been existent, the relation of causality would have held between them.

These two characteristics of causality are, I think, admitted by every one to be essential to that relation. But we now come to others, which are asserted by some thinkers to be essential to causality, while others deny this.

The first of these—the third in our general list—is that a certain activity is exerted by one term of the relation or the other, the name of cause being appropriated to the term which exerts the activity, and that of effect to the term on which it is exerted. Causation, it is said, is more than uniform conjunction. Even if the presence of A is invariably followed by the presence of B, this is not, it is maintained, sufficient to give causation, unless there is also present this activity. If it is asked exactly what is meant by such an activity, the usual answer is that each of us can observe it by introspection whenever an act of his own volition is the cause of the event which is willed in the volition.

The fourth point—which, as we shall see later, is very closely connected with the third—is that the cause determines the effect in some way in which the effect does not determine the cause. It is often held, for example, that our choice between resisting a temptation and yielding to it would be undetermined, if it were not caused, even if it were itself the inevitable cause of certain effects.

Fifthly, it is sometimes held that when the relation of causality holds between A and B, it involves that one of those terms is explained by its holding that relation to the other. When such an explanatory quality is attributed to causation, it is often held that the cause explains the effect, while the effect does not explain the cause. But sometimes the explanation is held to be reciprocal.

Those existent realities which are considered to be causes and effects are generally, though not always, events in time. This brings us to the sixth point. It is asserted that the cause cannot be subsequent to the effect. So much is very generally agreed, but there does not seem any general agreement that the cause must be prior to the effect. It is sometimes held that it can be simultaneous with it in time. Also it is held that a timeless existent reality can be the cause of events in time. For example, it is often held by theists that the creator who caused all temporal things is himself timeless. Nor would it be unusual, I think, to say that the Nicene Creed regarded the First and Second Persons of the Trinity as the causes of the Third, in spite of the fact that all three, and the Procession which relates them, are regarded as timeless.

In these cases, when the cause is not prior to the effect,

it would only be distinguishable from it by a discovery that one of the terms, and not the other, was the one which exerted an activity, or determined the other term, or explained the other term.

We pass to the seventh and last point. Here a word of preliminary explanation is wanted. When we look at what exists, we find that there are Qualities and Relations, and that there are things which have qualities, and which stand in relations. We may call qualities and relations by the general name of Characteristics. Characteristics have themselves other characteristics, but, besides this, we find that there are other things, which have characteristics, but which are not themselves characteristics. It will be convenient to call all of these Substances. It should be noted that if we define substance in this way—which I think, besides being the most convenient definition, is also the most usual—it will include more than is usually realised. For an event is something which has characteristics, and is not itself a characteristic. And thus not only can we so call by the name of substance such things as England, myself, and a pebble, but also such things as the battle of Waterloo or a flash of lightning.

Now a causal relation is always between substances. It is generally, though not always, between events, but it is always between substances. But—and here we come to the seventh characteristic—although it is itself between substances, it always rests on a relation between characteristics. The typical form of a causal proposition is that, whenever a substance occurs with the characteristic X, it causes a substance with the characteristic Y. We may say that the beheading of Charles I. caused his death, where we are speaking of particular substances. Or we might say that the most interesting event which has taken place in Whitehall caused the event from which the reign of Charles II. is measured. But we can only do this because “the beheading of Charles I.” and “the most interesting event which has taken place in Whitehall” are descriptions of an event which is the beheading of a human being, and “the death of Charles I.” and “the event from which the reign of Charles II. is measured” are descriptions of another event which is the death of the same human being, and because there is a causal law that the beheading of a human being always causes the death of that human being.

Of these seven characteristics, which have been asserted to be essential to causality, which shall we include in one definition? I think we should include the first two only,

and should say that causation is a relation of implication between existent realities—or, to put it more precisely, between existent substances.

My reason for leaving out the seventh characteristic from the definition is that, as I shall endeavour to show in a few minutes, it is implied in the two first. It is therefore true of all cases of causality, defined as I have defined it, but, since it follows from what is already in the definition, it is superfluous to add it.

With regard to the other four the case is different. I propose to leave them out for a different reason. I believe that by rejecting them we shall have a definition which is both more convenient, and, on the whole, more in accordance with ordinary usage. For, by the definition, I propose all that we assert, if we assert the validity of causality, is that the facts of the existent world are so connected with one another that it is possible, at any rate in certain cases, to infer one of them from another, and so form a basis for practical life and the validity of the empirical sciences. Now I believe that this is what people in general mean by causality, and that where these conditions are fulfilled, it would be in accordance with usage and convenience to say that there was causality. If that is the case, we ought not to put the other four characteristics under the definition of causality, even if they were true of all cases of causality.

There is also another reason why it is convenient to leave these other four characteristics out of the definition of causality. It is, I think, convenient, if possible, to reserve the term causality for some relation that actually does occur between all or most existent substances. Now, as I shall try to show, there is reason to judge that these four characteristics do *not* belong to any relation which holds among all or most existent substances.

If, on the other hand, we define causality, as I have proposed, as a relation of implication between existent substances, there is no reason whatever to believe that such a relation does not occur throughout the universe. That, of course, does not involve that there is any reason to believe that it *does* occur. I believe, as I said at the beginning of the lecture, that it can be proved to occur, but that is a point which we cannot consider to-day. But it remains the fact that it cannot be proved not to occur, and that almost every one does believe that it occurs—every one in fact who is not so thorough-going a sceptic as Hume. And, even if the relation does not occur, it is certain that the illusion that it does occur is one of which we cannot get rid.

No one realised more completely than Hume himself that, whether one event did imply another or not, we should always believe it, except when engaged in philosophic thought, and should act on our belief—that we should take food when we wished to appease our hunger, and not cut off our neighbours' heads unless we were prepared to cause their death. It seems therefore more convenient all round to define causality as a relation of implication between existent substances.

I must now proceed to justify the statements which I have made—that the seventh characteristic is implied in our proposed definition, and that the remaining four characteristics do not belong to any relation which holds between existent substance.

Let us first consider the seventh characteristic—that a causal relation, while itself a relation between substances, is based on a relation between characteristics of those substances. This, I submit, is involved in the fact that the relation of causality is a relation of implication. For all implication of one substance by another must rest on an implication of characteristics of the first by characteristics of the second.

This will be seen when we consider that implication must fall under one of two heads. Either it is evident *a priori* that the one term cannot occur without the other term in a certain relation to it—as when the triangularity of a particular figure determines the equality of its angles to two right angles. Or it is simply an ultimate fact that they are always found in a certain relation—as when a certain action in my brain causes the sensation of redness in my mind. Now it is clear that *a priori* implication of one substance by another can only happen as a consequence of *a priori* implication of characteristics, since it is only characteristics—qualities and relations—whose nature can be known *a priori*.

As for the second sort of implication, it depends on the terms always being found together, and has therefore no meaning unless they occur more than once. Now characteristics can occur more than once, for they are universal, and can occur in more than one particular case. But substances are themselves particular, and can only occur once. Therefore all implication must be based on the implication of characteristics. We can, indeed, say that one event implies another—for example, that the beheading of Charles I. implies the death of Charles I., where the two terms of the implication are both particular events. But this is only

because the first event has the characteristic of being the beheading of a human being, and the second event has the characteristic of being the death of the same being, and because the occurrence of an event having the characteristic of being such a beheading involves the occurrence of an event having the characteristic of being such a death.

It has not always been realised in the past that a causal relation must, in the last resort, rest on a relation of characteristics. And many of the difficulties in which writers on causation have involved themselves are, I think, due to their failure to see this, and, consequently, their failure to realise that any causal relation between particulars rests on a relation between universals—since all characteristics are universals. The reason of this failure has often, I think, been the belief that causality had the third characteristic which we enumerated—that there was an activity exerted by a cause or an effect. For, if this had been the case, it might have been maintained that the particular substance which was the cause did intrinsically determine the particular substance which was the effect, by means of this activity, and so implied it directly, and not by the intervention of characteristics. But, as we shall see, this conception of the activity exercised by the cause or the effect must be rejected.

We come now to the four characteristics which, as I have said, there seem to be good reasons for rejecting, as not being characteristics of any relation which does hold between existing realities.

The first of these is the third in our general list, which was spoken of just now—namely, that the cause exerts an activity or an effect. No reason, so far as I know, can be given why we should believe that such an activity exists. If we ask for a proof of its existence we are usually referred to the evidence of introspection. When I will to move my arm, and my arm is thereupon moved, I am directly aware, it is said, of an activity which I, the willing subject, am exerting.

Even if there were such an activity in such cases, it would give us no reason to believe that there was any such activity when the cause was not a volition, nor any indication of what the cause would, in that case, be like. And therefore some of the more consistent supporters of this view are driven to maintain that nothing but a volition is ever a cause—all events which are not the effects of human volitions being the direct effects of divine volitions, and having no other causes. As to this we may remark that it would be a very strained and inconvenient use of the word "cause," to say

that the *only* cause of the death of Charles I. was a divine volition, and that the beheading had no effect at all.

But I do not believe that there is any such activity to be perceived even when our volitions are causes. In my own case I can perceive no such activity. And I *can* perceive something else which could be mistaken for such an activity. I am conscious of willing. And then, after an interval of more or less duration, I am conscious that the result which I willed—the movement of my arm, for example, has taken place. In some cases, also, I am conscious of a feeling of tension or strain within myself. But this is all. Now this feeling of tension or strain is not an activity exercised by me on my arm. It is itself an effect of some cause or causes, and it is a psychical state, and falls wholly within the mind. But I venture to think that this feeling of tension is mistaken for an activity exercised by me on the arm. On these grounds I reject the view that we are directly aware of such an activity when our volitions are causes. And no other reasons have ever been given why we should believe such an activity to exist.

The fourth characteristic was that the cause determines the effect in some way in which the effect does not determine the cause. And it is for this reason that it is supposed that there must be a first cause in any chain of causation, while there need not be a last effect—that an unending series of causes of causes is impossible, while an unending series of effects of effects is quite possible. But, in truth, we do not find this characteristic in any relation of implication which holds between existing substances.

One reason why it has been thought that there is this non-reciprocal determination is, once more, the belief that the cause exerts an activity on the effect. If this were so, it is supposed, the term which determines the activity would determine the other term in a way which was not reciprocated. But this is of course invalid, if, as has been maintained above, there is no such exertion of activity.

Of course—and this may have contributed to the mistake—there really is a non-reciprocal determination between characteristics. Beheading determines death, but death does not determine beheading, since there are many other ways in which death can arise. But this will not justify us in saying that the cause has a non-reciprocal determination of the effect. Very often the determining characteristic belongs to the term which would be called effect, and not to the one which would be called cause. In the case given above, beheading and death, it belongs to the term which would be

called cause—the event of beheading. But, to take another case, we should certainly say that drinking alcohol was the cause of getting drunk, and not that getting drunk is the cause of drinking alcohol. And here the characteristic of what would be called the effect determines the characteristic of what would be called the cause, and not *vice versa*. For I cannot get drunk without drinking alcohol, but I can drink alcohol without getting drunk. It is therefore the characteristic of getting drunk which determines the characteristic of drinking alcohol, and not *vice versa*.

The fact is that it is impossible to say that either event determines the other non-reciprocally, because each event can be described by close and precise characteristics, or by vague and wide ones. And in proportion as it is described by vague and wide ones, they are likely to be such that they are determined without determining. We have seen that drinking alcohol is determined by getting drunk, and does not determine it. But any event which is a drinking of alcohol is also the drinking of a definite amount *M* under conditions *N*. And if we take *this* more definite characteristic we find that the drinking now determines the drunkenness and not *vice versa*. For it would be impossible to drink that amount under these circumstances without getting drunk, while it would be possible to get drunk without drinking that amount under these circumstances—a much less amount, for example, might be sufficient for a man with a different constitution.

Thus, of two events causally connected, we cannot say that the one which would generally be called the cause determines the other more than it is determined by the other. Nor can we say that whichever of the two does determine the other ought to be called the cause. Firstly, this would, as we have seen, involve that the one which was later in time should in many cases be called the cause, and the earlier the effect—which would be so contrary to usage as to be very inconvenient. Secondly, because the same event would often have to be called cause if you described it in one way, and effect if you described it in the other. An event, for example, which was described simply as drinking alcohol, would be called the effect of the subsequent drunkenness, but if it were more precisely described as the drinking of an amount *M* under conditions *N*, it would be called the cause of that drunkenness. This also would be extremely inconvenient. For all those reasons we must give up the fourth characteristic.

The fifth characteristic was that the discovery of a causal

relation between two events explained those events, or, at any rate, explained the event taken as the effect. Now if explanation here merely means that the events are taken as an instance of a general rule, then of course causality does give an explanation. If I ask why event B occurs, and am told that it was the death of a human body, that the beheading of the same body had immediately preceded it, and that there is a general law that the beheading of a human body is immediately followed by its death, then, in this sense, the event will be explained. But it will not be explained in any other sense, except that of being brought under the law. And, of course, in this sense, the law itself has not been explained. It, in its turn, may be explained by being shown to be a case of some more general law, but we must at last reach a causal law which is ultimate, and cannot be explained further.

But it is more than this which is meant when the characteristic we are considering is asserted. It is supposed that a causal law does not only say that every occurrence of X implies the occurrence of Z, but that in some way it shows us *why* every occurrence of X implies the occurrence of Z, and, that, as a consequence of this, a particular case of Z is explained by its causal relations in some deeper and more thorough manner than by being shown to be an example of a general rule.

Now it is very important to realise that every ultimate causal law—every causal law which is not a case of a more general law—asserts an ultimate connexion of two things—that is, a connexion of which we know that it does exist, but do not know why it exists.

This view is one which many people have been very unwilling to accept. They have been very anxious that causal laws should offer some explanation of that relation of characteristics which they assert, and their anxiety has led them in many cases to an entirely distorted view of the nature of causal laws.

In the first place, it has led to the belief that cause and effect are identical. If the cause is the same thing as the effect, it is thought that the relation between them—or rather the relation it has to itself—will be so obvious that it will be self-explanatory. But then any relation of a thing to itself cannot be a relation of causality. If, whenever we say that A is the cause of B, A is identical with B, what we mean is that B is its own cause, and the only cause it can have. And it is clear that this is not what is really meant by causation, and that it explains nothing, since it merely

connects a thing with itself and gets us no farther than we were before.

This seems so obvious that it seems strange that any one should deny it. And yet many great philosophers *have* denied it. The explanation is, I think, that what they are thinking of is that a cause and effect often have a common element. The egg is part of the cause of the chicken, and some of the content of the egg is some of the content of the chicken. Sugar and fruit are part of the cause of jam (not the whole cause, for there is also the person who makes it) and the same matter which was the sugar and fruit is the matter which is the jam. And we may perhaps say that the energy which was in the cause is also in the effect. But there are cases where there is no such common element. An east wind may be the cause of a bad temper. And the ambition of Napoleon may be the cause of bullet holes in the walls of Hougoumont. And in neither of these cases is there any common element that I can see, except those which are also common to things not causally connected.

But even when there is a common element this does not make the cause and the effect identical. Sugar and fruit may have a common element with jam, but they are not the same thing as jam, or we could not distinguish jam from them, which we can do. And when we say that sugar and fruit (*and* the jam maker) cause jam, what they cause are just the elements in the jam which are not identical with any elements in the sugar and fruit. The elements which are the same are not caused, but persist. We do not say that in making jam we cause its weight or its impenetrability.

Cause and effect, then, are not identical. And we must go farther. That any cause A has an effect B is never a self-evident proposition, in the way that it is self-evident that two straight lines cannot enclose a space. And, still further, it is never a proposition that can be proved by *a priori* considerations, in the way in which we can prove that the angles of a triangle are equal to two right angles. All ultimate causal laws are empirical truths. We know that they are so because, in point of fact, we find them to be so.

We have good reason to believe that, if a man's head is cut off, he dies. But our reason is purely empirical. We believe it either because it has been observed that, in none of the many cases in which a man has been beheaded, he fails to die, or else because it can be deduced from some wider law which itself rests on experience. Apart from experience we should have no reason to suppose that cut-

ting off a man's head would kill him than to believe that cutting his hair would kill him. Apart from experience, we have no more reason to suppose that cutting off my head would kill me than we have to suppose it would kill the executioner, or blow up the Taj Mahal, or destroy a mountain in the moon. We have good reason to believe that it will do the first, and not any of the other three. But our reasons are all empirical. All ultimate causal laws, in other words, are what is sometimes called "brute facts". But the name is misleading, since it rather suggests that there is some defect or imperfection about these facts, or about our knowledge of them, whereas the truth is that such facts not only have no reasons, but do not require any reasons.

There is one case in which it might seem particularly hard to admit that causal relations are here brute facts, and that is the case when a volition to do something—say to move one's arm—causes the movement. Surely, it might be said, even if it is not possible to be certain, apart from experience, that such volitions have such results, it could be seen, apart from experience, that it is likely to have such a result, and the probability, though not the certainty, is more than a brute fact? But this is mistaken. Except for empirical experience, it is just as probable that my volition to move my arm should move my leg, or Mount Everest, as that it should move my arm. This may be made more obvious if we reflect that the *immediate* effect of my volition to move my arm is to produce various changes in my brain, nerves and muscles, which I am not willing, and of which, perhaps, I know nothing whatever, and that, if for any reason this effect, which is not willed, fails, the effect which is willed fails with it.

The fifth characteristic, then, must be rejected. No relation of causality gives any explanation, except in the sense that it gives a general rule of which the particular case is an example. How about the sixth characteristic? This was that the cause could not be subsequent to the effect.

To answer this question, we must consider, in the first place, that we have not as yet found any criterion by which to distinguish the cause from the effect in a causal relation. The definition of causality which we have adopted was that it was a relation of implication between existent substances. The only difference between the two substances concerned which this relation involves is that one of them implies the other, while the second does not (except in cases of reciprocal causation) imply the first. But, as we saw when we were discussing the fourth characteristic, it would be im-

practicable to call the determinant substance the cause, and the other the effect. And thus our definition of causality gives us no criterion for distinguishing one term as cause and the other as effect. The third, fourth and fifth characteristics would have given us such a criterion, but we have found it necessary to reject them.

Accordingly, if we are to distinguish one term as cause and the other as effect it will have to be exclusively by means of a criterion based on the sixth characteristic. The earlier of the two terms connected by a causal relation will be called the cause, and the later the effect. But there will be considerable difficulties about such a use of words. If the distinction between cause and effect depends solely on temporal order, then there could be no causal relation between strictly simultaneous events. And, again, there could be no causal relation between two substances, one or both of which is out of time. A timeless God, for example, could not be the cause of the world, and between such a God and the world there could be no causal relation at all. Whether there is a God, and, if so, whether he is timeless, is another question, but there is, I think, no doubt that a use of the word "cause" would be very inconvenient if it prevented us from saying that such a God, if he existed, could be a cause.

Moreover, although it has been very generally held in the past that the earlier of the two terms should be called the cause, it has by no means been very general to hold that priority by itself is sufficient to make the earlier term the cause. It is generally, I think, believed that the earlier term is the cause because it is the earlier term which exerts an activity, or which determines the other, or which explains the other. And now that we have had to reject this view, it does not seem that we should be in very much harmony with ordinary usage, if we called the earlier term the cause, merely because it was earlier.

The course that I think most convenient therefore is to speak of causal relations as existing between two terms, but not to speak of one of those terms as cause, and of the other as effect. Of course, I am speaking here of philosophical usage. In ordinary life one should doubtless continue to say that a particular drinking of alcohol is the cause of a particular state of drunkenness. But philosophically we should say only that the drinking and the drunkenness stood in a causal relation to one another, since they were existent substances which stood in a relation of implication. What the implication, or rather the implications, may be, depends on the various characteristics of each. We saw above that,

if the drinking is described only as a drinking of alcohol, it is determined by the other, described as a state of drunkenness, and does not determine it, but that this is reversed if it is described as a drinking of an amount *M* under conditions *N*.

Of course it might be objected that, after all we have given up, we ought not to speak of causal relations at all. If we have given up all idea of activity, and of explanation, and of the non-reciprocal determination of the later term by the earlier, and if we have given up the designation of one of the terms as cause, and of the other as effect, ought we not to give up causality altogether? This view is taken by Mr. Russell, who, in his paper before the Aristotelian Society on the Notion of Cause, says that the idea of causality "is a relic of a bygone age, surviving . . . only because it is erroneously supposed to do no harm".

There is, no doubt, something to be said for this view, but, as I said previously, I think the balance is the other way. It is admitted that, for example, the occurrence of an event which is the beheading of a human being implies the occurrence of an event which is the death of the same human being. And I think that in this we have the essence of causality, and that we ought therefore to say that there is a causal relation between the beheading of Charles I. and the death of Charles I. Still this is, after all, a matter of definition. The results which we have reached which are more than matters of definition are that we ought to reject the conceptions of a cause which exerts activity, of a cause which explains its effects, and of a cause which non-reciprocally determines its effect, together with the further result that these rejections do not involve the rejection of the implication of one event (or other substance) by another.

We have then defined causality. The further question arises of the universal validity of causality. The question of whether causation is universally valid, or, indeed, valid at all, is beyond the scope of this lecture. All that I shall try to do is to state precisely what its universal validity would mean.

For causality to hold universally it would be necessary that each characteristic of any substance, in each case in which it occurred, should be implied by some other characteristic which had occurred. It would be necessary, then, that the following statement should be true. Let *G* be any characteristic which occurs, that is to say, which is found in any existing substance. Then, in each case in which *G* occurs, a characteristic, *Ha*, can be found, which occurs in a

relation, La to that occurrence of G , and which is such that, in each case in which Ha occurs, it will stand in the relation La to some occurrence of G .

Thus G might be the death of a human body. The Ha that we might find in connexion with a particular case of G might be the beheading of a human body. The relation La would then be that they were characteristics of the same body, and that the death immediately followed the beheading. And it is the case that whenever the beheading of a human body occurs the death of a human body is found in that relation to it.

I do not say that this is the form which causal laws invariably take. They do take it in some cases, but in others (especially, though not exclusively, in the sciences of inorganic matter) the laws of most importance take a quantitative form. For example, a change in the temperature of water determines a change in the space it occupies, and the amount of the one change is connected with the amount of the other according to some definite formula. But, although such a law as this does not take the form of the proposition given above, yet many propositions of this form must be true, if the law is to be true. If the changes of temperature and sign are connected in this way, then, whenever the change takes place from some particular temperature to another, there must be a change from some particular size to another. And then these two changes will be the G and the Ha , of which one is always found in a certain relation to the other. Such a law as that which correlates temperature and size will imply many such propositions as these, and cannot be true unless these propositions are true. And thus our statement above will have to be true in any field—whether the universe or a part of the universe—in which causality is universal, even though many of the causal laws are not expressed in this form.

The universality of causality is what is meant when we speak of the Uniformity of Nature, and we may therefore give the name of the Law of the Uniformity of Nature to our proposition which asserts that a causal law can always be found by which any particular occurrence of G is determined.

It will be noticed that our statement of the Law of the Uniformity of Nature does not assert reciprocal determination. The Ha which can be found for any occurrence of G is to be such that every occurrence of Ha stands in the relation La to an occurrence of G , but it has not been said that every occurrence of G will have an occurrence of Ha stand-

ing in the relation of La to it. It may well be that different occurrences of G may be related respectively to occurrences of Ha , $H\beta$, and $H\gamma$, by the relations La , $L\beta$, and $L\gamma$, and therefore, while every occurrence of Ha stands in a relation La to a G , not every G has an occurrence of Ha standing in the relation La to it. Thus, in our previous example, the beheading of a body is always followed by its death, but the death of a body is not always preceded by its beheading. The death may be determined by hanging or poisoning.

Of course, if G does not reciprocally determine Ha , it will be necessary, if the law of the uniformity of nature should be true, that Ha , whenever it occurs should be determined by some other characteristic. Since, for example, the death of a body does not imply the previous beheading of that body, there must, if the law of the uniformity of nature be true, be some other characteristic, the occurrence of which on any occasion implies the beheading of a body. This need not be a characteristic of the body itself. The law may be that whenever a certain characteristic occurs in something in a relation to a body that body will be beheaded.

Why does the law of the uniformity of nature lead to this apparently one-sided result—that for every occurrence of G we can find an Ha which determines G , while there is no guarantee that any Ha can be found which G will always determine? The answer is that G stands in the law for any characteristic which occurs in the universe, whether that characteristic is a description so minute that it applies only to one case in the universe, or is so closely defined and so narrow in its application as “the death of a King of England,” or is as broadly defined and as narrow in its application as “event,” “substance,” “thing”. Ha , $H\beta$, etc., on the contrary are not *any* characteristics, but only such as fulfil the required conditions with reference to G . They can therefore be chosen so as to be as closely defined and as narrow in their application as is necessary to ensure that there shall be no occurrence of Ha , or of $H\beta$, which does not determine an occurrence of G .

The law of the uniformity of nature, then, does not imply the reciprocal determination of characteristics. How must a law be stated which would assert that reciprocal determination?

It is clear, in the first place, that any law which asserted that, whenever there was determination, there was reciprocal determination, would be false. We know that drunkenness determines the drinking of alcohol, and we know that the drinking of alcohol does not determine drunkenness, since

there have been cases in which men have drunk alcohol without getting drunk. Here, then, is at least one case of causal determination which is not reciprocal. Again, if an existent thing is red, that fact determines that the same thing shall be coloured. But the fact that an existent thing is coloured does not determine that it should be red.

If, then universal reciprocal determination is taken to mean that every determination of one characteristic by another is reciprocal, it is clear that reciprocal determination does not hold universally. And when it has been said that all causal determination is reciprocal, something else, less far-reaching than this, has, I think, been meant. It has been meant, not that every determination of a characteristic is reciprocal, but that every characteristic has at least one determination which is reciprocal. The determination of death by beheading, it would be admitted, is not reciprocal, but, it would be asserted that all deaths by beheading have some particular characteristic which is found in no other sort of death, and that this particular sort of death and beheading are in reciprocal determination. Again, it would be asserted that there was some characteristic which occurred whenever the characteristic of death occurred, and only then, so that it stands in reciprocal determination with death.

If such reciprocal determination were universal, the law asserting it might be expressed as follows: Let *G* be any characteristic which occurs. Then, in each case in which *G* occurs, a characteristic *H* can be found, which occurs in a relation *L* to that occurrence of *G*, and which is such that in each case in which *H* occurs it will stand in the relation *L* to an occurrence of *G*, and that in each case in which *G* occurs, an occurrence of *H* will stand in the relation *L* to it.

It is impossible to prove empirically that this law does not hold universally. There may be many cases in which we do not see it to hold. There may be many characteristics, even among them for which we can find determinants, for which we cannot find any case of reciprocal determination with another characteristic. Yet for each of them there *may* be a determinant, unknown to us, where the determination is reciprocal. But, on the other hand, it would seem that it must be impossible to prove the law of reciprocal causal determination from the law of the uniformity of nature, even if the latter were itself established. For it is obvious that there is no contradiction in a determination which is not reciprocal, since, as we have seen, many determinations—such as the determination of death by beheading—are not reciprocal.

There is one more question about laws of causation which we may profitably consider. It has sometimes been asserted that complete knowledge of any substance would imply complete knowledge of any other substance, so that, if it were possible for us to know all that was true about any other substance, it would be ideally possible, with a sufficiently powerful intellect, to infer from this all that is true about every other substance in the universe, and the universe itself. This is apparently what Tennyson means when he says that if he could know completely what the flower was that he plucked from the crannied wall, he would know what God and man were. It is often said that this implication of the nature of each substance with that of every other must happen if the law of the uniformity of nature were universally valid, and could not happen unless it were universally valid.

This seems to me to be mistaken. In one sense this implication of the nature of each substance with that of every other is true, and it is true quite independently of the law of the uniformity of nature. In another sense it could be false even if the law of the uniformity of nature—and the law of universal reciprocal determination—were true.

The sense in which it is true, independent of the uniformity of nature, is as follows. Every substance in the universe is related to every other substance in the universe. Complete knowledge of all that was true about any substance A would include knowledge of all its relations to all other substances. This will include complete knowledge of all those other substances. For, if A has the relation L to B, then every fresh fact, C, about B is also a fresh fact about A, since it tells us that A has the relation L to something of which C is true. My relation to Julius Cæsar is not a very close one, but there *is* a relation, and therefore complete knowledge of me will include complete knowledge of Cæsar, since without complete knowledge of Cæsar it will not be known exactly what it is to which I stand in this relation. So a complete description of A—including all facts true of A—would include complete descriptions of all other substances. It would scarcely be correct to say that complete knowledge of B could be *deduced* from complete knowledge of A, but it would be true that, if we had complete knowledge of A we should have complete knowledge of B, and of every other substance.

But this inclusion of knowledge of all other substances in knowledge of A is not what is meant by the theory we are discussing. That theory asserts that from a knowledge of A which does not include knowledge of B, complete knowledge of B might be inferred by any one who had sufficient

knowledge of the laws by which one substance causally determines another, and sufficient power of reasoning to carry out the arguments required. And there seems no reason to suppose that this would necessarily be true, even if universal reciprocal causal determination were true.

That causal determination should be universal means that every occurrence of a characteristic in the universe is implied by the occurrence of some other characteristic in the universe. Now there is nothing in this to prevent it from being the case that there should be two substances, A and B, such that there is no characteristic of B the occurrence of which is implied, directly or indirectly, by the occurrence of any characteristic in A. (It is, of course, as we have just said, impossible that there should be any two substances in the universe which are not related in some way, but it does not follow from this that any two substances must be related by a relation of implication, since there are many other sorts of relation.)

And, even if it should be the case that every substance in the universe were connected with every other substance by relations of implication, the theory we are considering would not be proved. For it might still be the case that, though some characteristics of B were implied by characteristics of A, there were other characteristics of B which were not implied either directly or indirectly, by any characteristic of A. And, in this case, no knowledge of A will enable us to infer all the characteristics of B.

We have thus attempted to decide what should be meant by the word causality, and what would be meant by the universal validity of causal determination. The question whether causal determination is valid is beyond the scope of this lecture. Yet it may be pointed out that, if it is to be shown to be valid, it can only be in one way. To attempt to prove it empirically is hopeless, for all empirical proof must rest on induction, and induction itself rests on the uniformity of nature, so that any such argument would move in a vicious circle. And it is clear that the universal validity of causal determination is not *self-evident a priori*. In the mere assertion that it is not valid, taken by itself, there is nothing self-contradictory nor absurd. Only one alternative remains—that it should be capable of proof by a chain of reasoning resting on premises known *a priori*. It is further to be noticed that it does not follow that causal determination cannot be proved or be valid at all, unless it is proved to be valid universally. It might conceivably be proved to be true with respect to characteristics of certain classes, if it could not be proved about all.

III.—THE NEW DEVELOPMENTS OF MR. BRADLEY'S PHILOSOPHY.

BY F. C. S. SCHILLER.

Two excellent reasons may be given for this article. The first is the badness of philosophic criticism, which hardly ever troubles to give an intelligible account of the works supposed to be under review. For this again the reasons are in part specific and due to the very general inability of any philosopher to understand any other, in part general and due to the common habit of critics to perform their responsible functions by reading the preface and then proceeding to discourse about familiar doctrines in the author's last book, instead of reviewing the new one. But as prefaces only contain what the author wishes to be believed about his work, and are often written to test or circumvent the critics, they often deceive the latter; also this method of reviewing is evidently apt to bear hardly on any *novelties* the author may have ventured on. It is almost preferable that the critic should practise the egotistic method of discussing the work entirely in relation to his own system. For this may sometimes be enlightening (if there is sufficient affinity between the views implicated, and the critic is not merely a youngster trying to spread himself), and it usually contributes at least to the psychology of criticism, even where it does not produce any adequate likeness to the actual contents of the work so treated.

Now as Mr. Bradley's last book has suffered in both these ways from its reviewers,¹ and there exists a serious danger that some quite important novelties imbedded in his *Essays on Truth and Reality* will be practically overlooked, it seems a public service to call attention to them.

My second reason for this article is that I feel that I owe Mr. Bradley, or at any rate the philosophic public, something like an *amende honorable* for the attitude I have taken up

¹ It is fortunately not necessary to give references or to mention names, as most of the offenders were anonymous, and those who have read both the book and the reviews will easily understand what I mean.

towards Mr. Bradley's philosophy in the past. Not indeed (a) because I repent me of the criticisms passed on some of his doctrines—for most of them still await an answer, as do the criticisms of Mr. Alfred Sidgwick and Captain H. V. Knox, and the pretence that this is so not because they were unanswerable but because they were not worth answering, will deceive no one who is not determined to believe this at all costs. Nor (b) because I failed to acknowledge my debt to Mr. Bradley's writings—for I have always represented my humanism as the logical outcome of the philosophic situation created by his brilliant *reductio ad absurdum* (as it still seems to me) of rationalistic 'idealism'. Nor yet (c) because I have been blind to the pragmatic tendencies of Mr. Bradley's philosophising—for it was just on their account that it seemed to me an appropriate starting-point *en route* to pragmatism.

But what (d) I must joyfully confess is that I did not originally anticipate that Mr. Bradley would himself accompany us on this *route* as far as he has now done. This shows primarily how vastly inferior I am to William James as a practical psychologist. For James was always most reluctant to reply to Mr. Bradley's persistent and copious strictures on himself, not because he thought it difficult to expose the misconceptions in which they abounded, but because he was convinced that it was much better to leave Mr. Bradley to puzzle things out for himself, as he would then in the end convert himself to something remarkably like pragmatism, though very likely he would never forgive those who had forced this development upon him against his will. He was consequently content to predict, *à propos* of the article in *MIND*, No. 72, which forms chapter viii. of the present *Essays*, that some day Mr. Bradley might "take it into his head to revoke" and give away the game of rationalistic philosophy, and to note how very close his views really came to Bergson's (*and his own!*) at the 'watershed,' where they had all originated together in a repudiation of the Hume-Kantian conception of the 'synthesising' function of mind.¹

At the time indeed it seemed that this prediction had failed. For Mr. Bradley promptly repudiated James's suggestion, and ascribed to Hegel the whole honour of engendering his doctrine.² This reply was not quite apposite, because James had alluded to his departure from the *Kantian* tradition, and on closer investigation his disclaimer, despite the vigour of its language, seems far from conclusive.

¹ *Journal of Phil.*, vii., 2, Jan. 20, 1910, pp. 33, 29.

² *Ibid.* 7; *Essays*, p. 152.

The point at issue is, of course, very important. It is nothing less than the radical correction of the assumption of Hume and Kant that experience is given as a series of discrete experiences, demanding philosophic '*synthesis*' (either empirically by 'association' or transcendently by *a priori* 'forms'), and not as a continuous flux, upon which our selective attention and interests perform *coupûres*, until it is *analysed* and conveniently transformed into the common-sense world of interacting 'things'. Nowadays this doctrine is chiefly associated with the psychology of James and the metaphysics of Bergson. But it is true, and has not escaped the acuteness of some pragmatists,¹ that this doctrine, though it is not made philosophically prominent, pretty definitely occurs also in Mr. Bradley's *Logic* (1883).²

The question is how it got here. Mr. Bradley regrets that he cannot inform us "when it was that the view in question was first advocated in modern philosophy," but feels "perfectly certain" that he himself "derived it from Hegel".³ But unfortunately he gives neither reasons nor references, and it is on various grounds not impossible that he may be mistaken. The students of Mr. Bradley are familiar with his habit of ascribing vaguely to 'Hegel' many doctrines which affiliate themselves far more obviously to other philosophers, *e.g.* Herbart, and, if they are psychologists, must have noticed how strangely oblivious of the sources of their ideas philosophers can often become. It is difficult to believe, for example, that Aristotle was fully aware of his indebtedness to Plato. Nor, of course, does it follow that because one philosopher (in perfectly good faith) gets a view out of another's stimulation, it is actually contained in that other in a way any one else could have detected. In this case Mr. Bradley's theory has to explain how a view in Hegel which repudiates, not only the Humian psychology but also the Kantian epistemology upon a vital point, came to be overlooked by the whole of the professedly 'orthodox' Anglo-Hegelian School (T. H. Green, the Cairds, etc.)⁴ It is not

¹ Cf. D. L. Murray, *Pragmatism*, p. 10 n., though I must confess I myself did not realise the full extent of Mr. Bradley's divergence.

² P. 456. Cf. also *MIND*, O.S., No. 47 (1887), p. 363.

³ *Ess.*, p. 152.

⁴ I will first quote from the friendly pen of Prof. J. Watson the general confession that "in so far as such writers as Mr. Green and Mr. Caird are concerned, I think I may venture to say that as they undoubtedly conceive of the problem of philosophy very much as Kant conceived it, and seek to solve it by a method similar, if not identical, with his, whatever applies to Transcendentalism applies in all respects to Critical Idealism as well" (*Kant and His English Critics*, p. 3). For Green, indeed, reality

clear *prima facie* that Mr. Bradley is right against them, though I admit that he is a much greater philosopher. It seems more credible that Mr. Bradley may actually have developed his doctrine out of Aristotle, whose *συγκεχυμένον* is obviously a denial of 'psychological atomism' and certainly a continuum.

In view, however, of the apparent logical connexion of this view with other departures of Mr. Bradley's from 'idealist' orthodoxy, a still more obvious derivation may be suggested. If the psychical datum is conceived as continuous, it follows at once that judgments, 'ideas,' and in general reality and rationality, must be products of *selection*, and that the primary function of intelligence must be to *make* such selections, and that as such a selective agency, a 'soul' cannot be dispensed with. Now it is a curious fact that both these corollaries are (sometimes) found in Mr. Bradley, although intrinsically this whole body of doctrine fits remarkably ill into his metaphysical scheme. He is (a) unwilling to admit the 'uselessness' of the soul, though he does not claim originality for his 'Darwinian' counter-speculations.¹ (b) He emphasises, from first to last, the dependence of intelligence on discrimination,² and of judgment and truth on selection,³ though he hardly attempts to show how this is compatible with his metaphysical dogma that truth must 'somehow' reside in the whole. It is further to be noted that so long ago as 1879 a faithful reader of MIND might have found all these

consists essentially of relations and he is for ever seeking for "the principle of union which renders them possible," and so nature "as the source of a connected experience" and our knowledge of it (*Prolegomena*, p. 14). He actually says (p. 13) that "motion has no meaning, except such as is derived from a synthesis of the different positions successively held by one and the same body," which is the exact opposite of Bergson's contention. He protests against those who assume 'facts' without a synthesis of events into objects, "because no such work of *synthesis* is thought to be required of consciousness at all," and insists that "every object we perceive is a congeries of related facts of which the simplest component . . . requires in order to its presentation the action of a principle of consciousness . . . upon successive appearances, such action as may *hold the appearances together*, without fusion, in an apprehended fact" (pp. 69, 70, italics mine). Cf. finally the following from A. Seth's (Pringle-Pattison) *From Kant to Hegel* (p. 9). "By presenting the categories as the knot which binds man and the world together . . . Idealism becomes independent of the weakness of some of the individual arguments which Kant brings forward against Hume. It becomes unimportant for philosophy to insist on the *a priori* origination of conceptions. The conceptions remain the same, though the whole psychology of associationism be admitted."

¹ MIND, N.S., iv., No. 14, p. 176.

² MIND, O.S., No. 47, p. 377.

³ *Logic*, p. 459; *Ess.*, pp. 328, 330, 333, 345, etc.

ideas, clearly expressed in their proper logical and biological setting, in the remarkable articles which preluded the appearance of James's *Principles of Psychology*.¹ This may be merely a 'coincidence,' and if so Mr. Bradley will no doubt be delighted to establish this; but it shows that James had better reason to expect a 'revoke' from Mr. Bradley than from the ordinary run of 'idealists' who had never shown any perception either of the difficulties of their own position or of the elegance of the alternative.

It is clear then that there is much in Mr. Bradley to which justice is not usually done, either by his friends or by his opponents. As however I cannot here review the whole of Mr. Bradley's collection of essays in full detail (as it deserves), I shall practically omit (1) the large part of the book which consists of reprinted articles from *MIND*. These I used for years to comment on conscientiously as they came out,² and I have little to add, as they have hardly been altered at all. Both sets of articles dealt, more or less directly, with the pragmatic controversy, and Mr. Bradley's share of it is (superficially) distinguished by quite a virulent animus against what he calls pragmatism. But a pragmatist soon discovers both that what is attacked is not any pragmatism any one has ever held, and also that each successive outburst is the precursor of further concessions to the genuine article, so that their cumulative effect is to drive Bradleyism ever closer to pragmatism. Both for this reason then, and for others which will appear, the whole of this material may safely be left to the future historian of philosophy in the twentieth century, who (if he is not a German)³ will find that it throws much light on the logical transition from absolutism to pragmatism and humanism.

(2) I do not feel it incumbent on me either to expound or to answer Mr. Bradley's criticisms on Mr. Russell's theories. For in part this subject has already been dealt with very fully (quantitatively at least), in part it seems to me that the relations between these views must remain purely 'external' and there is little likelihood that either will ever get near enough to the other to deal it a mortal blow.⁴

¹ Cf. especially "Are we Automata?" in O.S., iv., No. 13, and "The Sentiment of Rationality" in No. 15.

² Cf. Nos. 52, 63, 67, 73, 76, 85.

³ A perusal of Dr. T. B. Muller's *Kennisleer van het anglo-amerikaansch Pragmatisme* leads me to hope that he may be a Dutchman.

⁴ I do not reckon as such the objection that the 'coherence' theory of truth contradicts itself by asserting the absolute truth of the partial truth that no partial truths are wholly true, or otherwise, that having presupposed the absolute truth of the evidence on which it accepted its ideal of

(3) Lastly, I do not propose to reply specifically to Mr. Bradley's extensive criticisms on William James. Some of these are new, but most are old, and as the old ones did not seem to James to be worth answering, I should scarcely be acting in the spirit of our departed master if I concerned myself with them minutely. I will merely remark that in general their force seems to be greatly impaired by Mr. Bradley's fondness for mere verbalism (*e.g.* pp. 338-339), by his apparent inability even to conceive empirical verification and what is meant by a thing's 'coming true' (*e.g.*, p. 146), and by the very insufficient provision of exact references and quotations.¹ But it is pretty well recognised that Mr. Bradley's genius does not lie in reproducing the views of others.

I.

There remain however substantial parts of Mr. Bradley's book which are both constructive and new. They consist of an introduction (pp. 1-18) and particularly of the concluding chapters (pp. 409-473), and what I propose to discuss is

'coherence,' it proceeds to destroy this essential premiss by concluding that no partial truth is absolute. For though this objection itself seems fatal and has never been met, it seems to rest merely on ordinary logic and to be independent of any special philosophy. As a matter of fact it was first urged by Mr. Russell in one form (*Arist. Soc. Proc.*, 1907), and by Capt. Knox in another (*Quarterly Rev.*, No. 419, pp. 390-394), and it now seems open to *any one* to urge it.

¹Though one gratefully notes that as a rule Mr. Bradley has become kinder to his readers in these matters. But, as might have been expected, their gain is sometimes his loss; as *e.g.* when a specific reference to his *Logic*, pp. 518-519 enables them to judge just how much foundation there is for his claim to have anticipated Mr. Sidgwick's difficulty about the ambiguity of the middle term (p. 368 n.). The reference shows that he had come upon the formal basis of Sidgwick's discovery, but had no conception of its far-reaching logical importance, and regarded it merely as a piece of 'sceptical' ingenuity. For whereas to Sidgwick's mind the liability of the middle to ambiguity shows that there cannot be any 'formally valid' inference, and the conclusion of every argument has always to be verified empirically in fact in every case; to Mr. Bradley's it shows that syllogisms cannot be '*used*,' that unforeseen conditions must '*destroy*' our reasoning, that terms between which the connexion fails for a special purpose cannot be '*really connected*' at all, and that a logical process which is liable to error is '*sure*' to be vitiated. *I.e.* he has not grasped that syllogisms are made to be used, that deductions are intended to predict, and that there is no harm in correcting premisses. Hence the ambiguity for him pre-exists in the eternal being of universals, instead of being produced by the combination of the premisses for a special purpose, and he is still under the spell of the rationalistic delusion that where there is 'risk of error' there can be no genuine truth.

how far they should lead us to modify our estimates of Mr. Bradley's philosophy.

We note to begin with that the subjects discussed are far more interesting than the dreary subtleties to which philosophies usually restrict themselves, and indeed quite sensational. 'God and the Absolute,' 'the Reality and Personality of God,' 'the Fear of Death and the Desire for Immortality' and the possible reality of dream-worlds, strike quite a refreshingly human note at the end of 400 pages of highly technical discussion, which had, apparently, exhausted the patience of all his reviewers. Nor are the results less sensational: for they amount in effect to something very like a series of palinodes and an abandonment of important positions taken up in *Appearance and Reality* and elsewhere.

Not that Mr. Bradley formally withdraws what he said before; in view of the infinite elasticity of his Absolute in accommodating any amount of incongruities in their 'relative truth,' that would be quite unnecessary. He simply *adds* some surprising novelties. If to others these things seem incompatible with the older dicta, that only shows that they still retain an undue respect for the Principle of Contradiction, and a 'one-sided' hankering after consistency. But this principle (though it is good enough to build a metaphysic of Appearance and Reality on) has no terrors for the philosophic adept. He has ceased to listen to "a one-sided cry for clearness and consequence" (p. 124), he is "emancipated once and for all from the narrowness of all one-sided attempts at consistency," and despises "a blind appeal to theoretical consistency, and an uncritical faith in the ultimate Validity of some undiscussed Law of Contradiction" (p. 133)¹. "To suit his varying purpose," therefore, he is able "from time to time to make statements which, as they are made, contradict one the other" (p. 337). As for metaphysics, he has "seen far too much" of them "to think of staking vital issues on the result of speculative inquiry" (p. 132), and is ever "willing to concede that my metaphysics may be wrong" though "nothing could persuade me that my instinct is not right" (p. 268).

It will probably be admitted that these candid confessions which he had thoughtfully made in the earlier part of his work leave Mr. Bradley a very free hand, and are intellectually disarming. It becomes merely stupid to object to anything he says on the score of inconsistency, and particularly when

¹ Cf. also p. 67 n., pp. 123, 343 n.

he himself objects to others on this score.¹ It is better to observe whither Mr. Bradley's 'instincts' conduct him.

II.

In chapter xv. he begins by repeating that the Absolute is not God. God has no meaning outside of the religious consciousness, and that essentially is practical. The Absolute cannot be worshipped, because there cannot be a practical relation between it and the finite will: if you try to worship it you forthwith transform it into something which is *less* than the Universe. Hence is inferred a fundamental inconsistency in religion. For God must be perfect—in any but an 'imperfect' religion. A God good but limited, though he could be worshipped and might even evoke a special loyalty, cannot give *assurance* that in the end he may not be beaten, and this entails a loss to the religious (? timid) mind. We get then this dilemma that, if God is perfect, religion must contain inconsistency, while if consistency is sought, God must be limited and this mutilates the substance of religion. But why need we attempt to avoid self-contradiction? Has religion really got to be consistent theoretically? Is ultimate theoretical consistency attainable anywhere? Is is not once for all ridiculous? No truths are more than useful mythology anywhere, and only these inconsistent ideas can serve our various purposes. Religious 'truths' then are no worse than the others, and those of them which best express our highest religious needs, and their satisfaction, must certainly be true. To test them we need merely ask whether they really answer to our need; any other criterion is mistaken, and dangerous.

It will readily be perceived that this argument, which has been summarised almost in Mr. Bradley's own words, makes some striking points. (1) It should severely shock the genuine seekers after a rational religion to learn that the quest is doomed to failure, and that religion is essentially a pragmatic business. Unfortunately no religion has yet been convinced either by Mr. Bradley or by any one else of the correctness of this diagnosis, and many of them even persecute the pragmatists they have among them.

(2) It is made quite clear *why* God cannot be identified with the Absolute. The Absolute is not only not worth worshipping, but whoever tries to do so finds that he *ipso facto* limits it, and turns it into something *less* than the Universe. This should cut off one of the chief sources of philosophic hypocrisy.

¹ *E.g.* p. 318.

(3) It manifestly makes extraordinary concessions to the notion of a finite God, who is now acknowledged not only to be thinkable, but adorable and superior, *in theoretic consistency*, to the God of 'perfect' religion. All of these are contentions of a philosophic pluralism for which formerly Mr. Bradley could not express sufficient contempt. True, the finitist theology is still rejected, but with what perfunctory arguments! They reduce themselves to a refusal to alter an arbitrary *definition* of 'religion'. For all that "mutilating the substance of religion" really means is that when you have (rashly) defined religion as the worship of an omnipotent Whole and discovered that this will not do, because the Whole cannot be worshipped, you *must change your definition* into something more in accord with the facts of the situation.

(4) And Mr. Bradley also betrays the shabby and pettily human motives of the refusal to do this. A finite God yields no absolute '*assurance*'; and even a verbal and nugatory assurance *a priori* is better than merely empirical grounds of confidence. The prejudice here revealed is identical with that which prompts the demand of Formal Logic for *formally valid* 'proof,' and its refusal to look at the real reasoning which *runs the risk* of failure. But there seems little reason for dubbing this refusal either 'religious' in the one case or 'logical' in the other. In both cases it resembles rather an instinctive prompting of moral cowardice and intellectual obtuseness. At any rate, when its nature is thus nakedly displayed, we may trust that it will be bravely repudiated by the sturdy old Norse spirit that prefers to run the risk of 'dying with Odin' when *Ragnarök* breaks out, to being ignobly saved by an illusory transmutation into an Absolute that neither knows nor cares.

(5) But the most glaring feature in Mr. Bradley's argument is its aggressive affinity to pragmatism. It even seems at first sight an *ultra-pragmatism*, which exults in those very excesses which the austerer scientists and philosophers have from the first denounced as demoralising and destructive of the most elementary standards of intellectual honesty. It not only seems to make mere emotional satisfactoriness the primary source of religious 'truths,' and makes no mention of any empirical or objective *testing*,¹ but sanctions the completest autonomy of every sort of truth-claim and a complete disregard of the duty of synthesising the various sorts of 'truths'. So long as they do not claim to be absolute, 'truths' have a licence to be as inconsistent as

¹ Though this is not perhaps made quite clear.

they please. Provided, of course, that they can be said to 'work' in any way. For we unmistakably encounter in Mr. Bradley the notorious equating of truth and use, which such desperate attempts have long been made to fasten on to pragmatism. "*Whatever* ideas really are required," he calmly declares, "are true."¹ In short the despotism of the one (unknowable) Absolute Truth rests upon an absolute anarchy among the common herd of its subjects. The reason for this paradox is that nothing is ultimately true but the One and to relative 'truths' everything is permitted.²

Could these deliverances be surpassed by any pragmatist? He would certainly be ill-advised to try, and should rather quote *Timeo Danaos*, and scrutinise Mr. Bradley's offers of support. He will then note that their doctrine seems to ignore the scientific source of pragmatism in that unwearying watching of events and critical revision of truth-claims of all sorts, which assure the progress of the sciences, and therefore will *not* abandon the hope of scientifically verifying and synthesising them all. Nor will his failure to attain absolute truth goad him into disregard of intellectual consistency. He will point out to Mr. Bradley that there is no need to despair of the ultimate consistency and complete unification of scientific doctrine because of the survival-value of 'true' beliefs, and that his apparent laxity in allowing all sorts of 'satisfaction' to put in their claims *to be tested*, only recognises the actual facts of human knowing, and redounds to the benefit of the so-called 'theoretic' interest itself, if it aims at an adequate description of the functioning of our intelligence.

Nor will he admit that Mr. Bradley has outbid him in the eyes of the intelligently religious or surpassed him in pragmatism. He will explain rather that Mr. Bradley's present position forms the last halting place but one before true pragmatism is reached, and its exaggerations are reduced to reason. For if we premise that one of the best roads to pragmatism issues from the gradual dissipation of the great illusion about the absoluteness of truth, and that we may begin by discovering that there is an apparently arbitrary (*i.e.* selective), and therefore man-made and 'fictitious,' side to *some* truths, and that this is essential to their function and the very source of their usefulness and value, it is tempting to

¹ P. 433. Similarly, p. 123, "I agree that any idea which *in any way* 'works,' has in some sense truth" (*italics mine*, in both cases). Miss Stebbing should take note of this (*cf.* MIND, No. 83, 84, 86, 88).

² It is curious that the doctrine of 'degrees' of truth should no longer be appealed to, to introduce some semblance of order.

proceed to the excessive declaration that *all* 'truths' are 'fictions' and that the way of 'knowledge' always leads away from 'reality'. Now this is the position which has been reached by Prof. Vaihinger,¹ and long before, by Nietzsche.² But Mr. Bradley here has *not quite* got to it. He is willing enough to describe all 'relative' truths as useful 'fictions'; but he still thinks that absolute truth *ought* to exist, and so clings to the belief that the Absolute must have it, seeing that no one else can. To the critic this position naturally seems an unreasonable prejudice, but it is Mr. Bradley's *choice*, and cannot be attacked by logic.

What however a critic is entitled to demur to is the tacit assumption, made both by Prof. Vaihinger and (at this point) by Mr. Bradley, that because 'truths' are 'fictions,' no one need trouble about them further. For surely the *values* of such 'fictions' may be discriminated, and are very various. They can therefore be arranged in an order of merit from a purely human point of view. Further, a system of the purposes to which the various truths minister may be gradually built up. And when we watch the persistence and devotion with which the sciences build up their systems, it may suddenly occur to us that after all the impracticable assumption that truth must *not* depart from the given by subjecting it to human manipulations was nothing but an arbitrary prejudice, which led only to an unjust depreciation of the most precious truths as 'fictions'. We can, therefore, uproot this prejudice and abandon this assumption, if we resolve to *cancel* the otiose notion of 'absolute' truth altogether. Our 'relative truths' (*alias* 'fictions') thereupon become truths *optimi juris*, and their failure to be absolute no longer counts against them. In that moment true pragmatism is born, and can proceed to appraise the claims of the conflicting 'truths,' so far as the state of human knowledge permits.

III.

We return to Mr. Bradley's account of the personality of God. A personal God is not of course ultimate for metaphysics. But he may yet be so for religion (though some religions do without one). The real presence of God's will in ours must not however be denied or impaired by this religious sentiment. For that is more vital still. Hence genuine religion exhibits a 'pantheism' " which

¹ Cf. MIND, No. 81, pp. 100-103.

² Cf. Quarterly Review, No. 434, pp. 162-165.

is not less there because it expresses itself by what in fact is an inconsistent polytheism". Religion is once more revealed as consisting of necessary inconsistencies.

This passage accords somewhat better with *Appearance and Reality*, though the postulate of personality is treated with far more respect, and no longer as a mere device of intellectual dishonesty.¹ In the next section, which discusses immortality, the modifications are more marked. The arguments, with the exception of the demand of personal affection, all leave Mr. Bradley "not merely unconvinced but cold," and he doubts whether it is much use arguing about the subject. Nevertheless his intellectual tone has improved—apparently through the influence of Dr. Mc Taggart, like himself, an 'atheistic' absolutist. He concedes that if any one's religion demands a genuine personal existence after death, the belief is "so far right, and under this condition may be called true" (p. 439, 'ultra-pragmatism' again!). He condemns as "one-sided and unsatisfactory" his notorious article in the *Fortnightly Review*,² and 'fully recognises' that "in some present attempts to communicate with the dead there is much which deserves sympathy". And he has given practical expression to this change of attitude by joining the Society for Psychical Research some six or seven years ago. Nay, so complete has been his change of mind that he even considers that the official Roman Catholic view that (unauthorised) psychical phenomena are to be ascribed to the Devil deserves serious consideration (p. 440 n.).³

IV.

Proceeding to pp. 443-447, we get an interesting excursus on the relations of life, metaphysics and common-sense which is marked by great candour and a further advance towards pragmatism. Mr. Bradley points out that the Universe "refuses to divide itself into well-defined objects and clean-cut distinctions". The demand therefore for them by "what counts itself as sound sense and clear thinking must mutilate and distort the living whole". Thus common-sense can never be reconciled to metaphysics, nor can metaphysics cure man's intellectual unrest, though Mr. Bradley holds that

¹ Cf. *App. and Real.*, p. 532.

² Dec., 1885.

³ Like Mr. H. S. Shelton in *Science Progress*, Jan., 1914, p. 410. One wonders after that what Mr. Bradley thinks of a recent case of the excommunication of a priest for working miracles (not fraudulently but) without his bishop's leave!

for him "it has in principle broken down the unnatural barrier between beauty and truth, between poetry and fact" (p. 444). It is admitted however that this may all rest on personal feeling, and that others may conclude from it to theoretic scepticism. Even this may free us from "the tyranny of intellectual prejudices" and "the superstitious idolatry of abstract consistency. For such a scepticism all our truths, without exception, are mere working ideas," *i.e.* "are there to serve our living interests" (p. 445). For such a view prose and 'fact' may be more fanciful than poetry or art. "Everything in short in life will be tried, and condemned or justified, solely on the ground of our highest human interests" (p. 446). In addition however to such a "mere collection of working ideas" we need "some kind of working creed," in order "to recognise and justify in due proportion all human interests, and at the same time to supply the intellect with that to which it can hold with confidence". It is not in the power of philosophy to supply such a new religion, though a critical philosophy may "in some sense justify and support our faith". Mr. Bradley declines to surmise whether and how "we shall get this new religion," but will not declare it impossible.

It is clear that this argument presents remarkable analogies with the ideas of thinkers like Prof. Bergson (as regards the distortion which comes from conceptualising), Prof. J. A. Stewart (as regards the affinity between metaphysics and poetry), and Mr. A. J. Balfour (as regards the imperative need for a religion). Moreover in his description of the intellectual attitude flowing from 'theoretical scepticism' Mr. Bradley comes nearer to pragmatism than he ever did before, and indeed only just stops short of it. For (*a*) he gives up the single exception to the pragmatic nature of truths he had insisted on before, *viz.* the alleged Absolute's absolute truth, and allows that *all* our truths may be taken as working ideas. (*b*) He appears to recognise the need for *testing* truth-claims, and judging them accordingly.

These two advances would together entail complete pragmatism, if (1) we were also allowed to re-name the doctrine and to re-value its products, discarding the term 'scepticism' and the imputation of 'fiction'. This however Mr. Bradley will not let us do. But why should the fortunate fact that ideas 'work' convert them into 'fictions,' and why should our willingness to use them for what they are worth constitute 'scepticism'? Surely real 'theoretical scepticism' does not look beyond the intrinsic quality of the idea it finds intellectually defective and has nothing to do

with their 'working'. Any reference to 'working' must at once import considerations alien to pure contemplation, and transcend pure scepticism, which does not seem to concern itself with the *use* of ideas at all, and least of all with use for the purpose of harmonising or organising human life and action. Indeed it is precisely in its abstraction from the *use* of ideas that the essential error of scepticism appears to consist in pragmatic eyes. A pragmatist would also regard with some suspicion the apparent vagueness and dangerous laxity of Mr. Bradley's idea of 'working'.

(2) Mr. Bradley also does not seem to extricate himself very successfully from the difficulty of *combining* his two views that the Universe is a 'living' whole, and that "life as a whole is liveable, because we select arbitrarily those ideas which seem best to suit the occasion" (p. 443). It seems to follow (a) that conceptual interpretation, because selective, is 'mutilation,' and (b) that nevertheless, unless we select, we cannot *live*. Thus the 'life' of the Universe depends on *forgoing* selection, that of man on *insisting* on it. Life therefore appears to be hopelessly divided against itself, and the 'life' of the Universe consists of a perpetual self-mutilation.¹

But why not escape from this singularly awkward situation by reconsidering the assumptions which led to it? Why not take the 'life' primarily to be explained as *our own*, and *suspend our postulation* of 'The Universe,' until we have inquired what right we have to make it in the precise form that produces the *impasse*? It may then turn out either that no unity of the Universe need be conceived in such a way as to stultify our whole cognitive procedure, or even that the supposed intellectual necessity of assuming the unity of the Universe was a mistake altogether. After all, once we begin to question the self-evidence and absolute truth of monistic metaphysics, we need not shrink from observing that they never seem concerned to show that there is a practicable *route* from the empirical unity of human experience (such as it is) to the cosmic validity of our notion of 'The Universe'. If

¹ The same difficulty arises for Mr. Bradley in a logical context also. He teaches both that (human) truth must select and abstract and rest on the assumption of the (inevitably risky) irrelevance of much that is 'given,' and that (conceivably absolute) truth has to be all-inclusive and can treat *nothing* as irrelevant (cf. pp. 328-333). But these two positions seem to be clearly incompatible (cf. MIND, No. 82, pp. 162-166), and Mr. Bradley advances no argument for the connecting link between them, that "truth, compelled to select, is therefore forced to remain for ever defective" (p. 330). This is merely to *assume* that the defects of its *origin* for ever preclude it from attaining *validity*.

then this assumption is found to lead to insuperable conflicts with the facts of life, it *may* be preferable to give up the assumption rather than the intellectual functions of philosophy. Thus genuine pragmatism can set a higher value upon 'reason' than *soi-disant* rationalism.

V.

Chapter xv. concludes with two 'supplementary notes' dictated by 'anxiety to be frank,' about the reality and personality of God and 'our fear of death and desire for immortality'. The former reaffirms that the essence of religion is practical, and speaks of the religious consciousness in terms that might have come straight out of *The Varieties of Religious Experience*. Not even the Jacobin 'polytheism' is missing, when Mr. Bradley does not "deny the possibility or the existence of one or more finite persons, such as to serve as the object of religion, or at least of some religion" (p. 449). In one sense God's personality is even a 'necessary' (=needed) truth, if without it religion remains imperfect, if religion's claim must be perfectly satisfied and it is "the supreme belief on which we have to act". This argument from personal need is sound as an argument (*i.e.* postulate), though it may be false in fact (*i.e.*, empirically unverifiable).

The pragmatic quality of these pronouncements can hardly be disputed, though few pragmatists would affirm so unreservedly the pragmatic value for all men of the extant religions.

The second note may best be described as reading like an answer to such a *questionnaire* as that circulated by the American Branch of the Society for Psychical Research some years ago. As such it is a psychological document of the highest value, and should do something to shake the foolish convention that it is bad form for a philosopher ever to touch on anything intimate and important. I take the liberty of quoting: "to die and go we know not where, to survive as ourselves, and yet to become we know not what—such thoughts must bring disquiet" (p. 459). Yet to infer that this disquiet can be removed by any religion that "will assure us that all evil is really overcome" seems to argue excessive reliance on the ambiguity of 'assure'. *Credat Judaeus*, but hardly a philosopher!

VI.

But the crowning mercy in the way of novelties, at all events for the purposes of this paper, comes in the last

chapter, on 'My Real World'. It deals with the bearing of dream-experiences on the problem of reality, and closely parallels both the thought and the expression of my own speculations on the same topic. That I should be endorsed in a characteristic line of thought by Mr. Bradley will no doubt excite widespread surprise; but my own surprise was immeasurably greater at finding a favourite doctrine which I had been preaching for a quarter of a century without ever so much as eliciting a word of comment, favourable or otherwise from friend or foe and which I had therefore good reason to regard as universally unpalatable, suddenly supported most effectively in the least probable quarter. In view of this situation it will be well to analyse carefully what Mr. Bradley says and to quote for the parallels.

Mr. Bradley begins by referring to "an old familiar doubt as to dreaming and waking.¹ A man is led at times to ask whether his real life may not be a dream and his dreams reality. . . . Is there not another world within which I might suddenly wake, and from which I should look back upon *this* life as unreal? Such doubts and surmises, far from being irrational, are in my opinion even justified."² Our 'real' life, according to Mr. Bradley, is the universe of things which are continuous in space with our bodies and in time with their 'states' and 'actions'. But 'the body' is that of waking life, and that it should have "an exclusive or even a superior reality" is not evident. "For admittedly in dream, in mere imagination, and in states of hypnotism and madness, I find myself with other bodies" (p. 461).

The objection that the waking world is more rational, is answered by a denial, in view "of certain dreams and some hypnotic and other abnormal conditions" that it is always the wider and more comprehensive state. On the contrary the waking mind is bounded and contracted for practical purposes.³

¹ It seems first to appear in the *Theætetus*, 158, significantly enough in a Protagorean context; but a mind like Plato's could hardly be expected to discuss seriously so anarchical a thought.

² Cf. "While it lasts a dream has all the characteristics of reality. . . . But if the rough touch of death awoke us from the lethargy of life . . . would not our earthly life appear a dream, the hallucination of an evil nightmare?" (*Riddles of the Sphinx*, new ed., p. 280). "How may reality be distinguished from a consistent dream? And seeing that experience presents us with transitions from an apparently real (dream) world into one of superior reality, how can we know that this process may not be repeated, to the destruction of what now seems our real world?" (*Stud. in Humanism*, p. 202).

³ Cf. "Dreams (while we dream them) have all the marks of an independent reality, are immersed in a space and a time of their own, and

Moreover abnormal or dream states which seem inferior in and by themselves may not be so in relation to a different environment. "What we call our real environment may be indeed the merest fraction of the universe, and such as it is, it might . . . be altered to-morrow" (p. 464). Minds starting from another basis may have worlds "better and more real than mine". If "in hypnotism, madness or dream my world becomes wider and more harmonious than the scheme which is set up from my waking self, then does not what I dream become at once a world better and more real?"¹

"The thought of other, of even an indefinite number of other, unknown worlds and lives" "as real as my own or more real" seems therefore to be possible. "Into one or more of these orders from time to time I may enter in my dreams." Even now "I may be leading a different life somewhere else." "We may have many lives sundered wholly"; cf. Gautier's *La Morte Amoureuse*, p. 466.²

Curiously enough, however, Mr. Bradley does *not* draw from his recognition of these facts the corollary to which they seem directly to conduct, *viz.* that to find any empirical confirmation of the theory of a single Absolute embracing and harmonising the whole Universe, is desperately difficult. It is easy enough of course to postulate an Absolute which accomplishes *ex officio* whatever it is invented for. But how about confirming this postulate by the facts? How *e.g.* is this chaotic assemblage of dream-worlds, infinite in

contain personages just as external to us, and as uncontrollable in their actions as those of waking life" (*Studies*, p. 383). "Nor can I imagine what justified me once in dreaming that I was a beautiful woman well over eight feet high" (*ib.*, p. 477). "Dream-worlds are of inferior value for our purposes, and are therefore judged unreal" (*ib.*, p. 473).

¹ "A world so much better, more beautiful, coherent and rational, and in two words *more real*" (*Humanism*, p. 22). "All our distinctions between the 'real' and 'unreal' are *intrinsic*: it is the dream world's character itself that leads us to condemn it. And if in our dreams we found ourselves transported into worlds more coherent, more intelligible, more beautiful and more delightful than that of daily life, should we not gladly attribute to them a superior reality?" (*Humanism*, p. 367). All the religions "must contend that phenomena which would ordinarily be classified as unreal may, properly, belong to a world of higher reality" (*Studies*, p. 479).

² "The coexistence of an indefinite plurality of real worlds, of infinitely various kinds and degrees of completeness, complexity, extent, coherence, pleasantness, rationality, etc., was quite conceivable. Habitually, no doubt, we were confined to *one* of these, but occasionally we were enabled . . . to make fleeting incursions into these other worlds . . . and to return and say (falsely) that it was all a dream" (*Studies*, pp. 481-482, and cf. *Humanism*, p. 366). Instead of Gautier I referred to stories from Dumaury, Kipling and Bulwer Lytton (*Stud.*, pp. 478, 480).

number and quality, ever to be truly unified? Does not their existence cast a serious doubt on our glib assumption that our multifarious worlds all form parts of the Universe and that this human notion of ours can be successfully applied to a reality that overflows our categories in every direction?

To Mr. Bradley as to me, however, the evidence of dream-worlds seems to "bear specially on the question as to what we call death" (p. 467). For it is only "on the assumption that our real world is the sole reality" that there is "any valid argument at all for senility and death". And even though in principle everything finite is subject to chance and change and dissolution, "it does not follow that finite beings are unable to endure, as themselves, for an indefinite time". "Death may be an overmastering impression, but it is certainly no necessary truth," and may be "a mockery" (pp. 467).¹

VII.

It is clear, therefore, that the resemblances here between Mr. Bradley's thought and mine are extremely close. They must however be set down to coincidence; for have we not Mr. Bradley's word for it that he does not read what I write?² This however renders the coincidence all the more remarkable, because it shows in what a thoroughly empirical way Mr. Bradley is now willing to handle the facts. He desires his new treatment to be taken as a 'commentary' on the doctrines of *Appearance and Reality*. A 'commentary' of this kind is rather upsetting to its text, especially to those who have not themselves lived through the psychical transition from the one to the other. But it is perhaps as much as any one can fairly be expected to say who is making essential modifications in a position to which he stood committed in print. At any rate it actually involves so complete a transvaluation that it brings us back to our initial question—has Mr. Bradley 'revoked' as James predicted?

This question even now is not an easy one to answer definitely. For Mr. Bradley's moods are somewhat variable,

¹ The bearing of the reality of dream-worlds on the meaning of death is very similarly estimated in *Humanism*, pp. 368-372, and *Riddles*, pp. 378, 382, which also speaks of the 'overwhelming' and 'unanswerable impressiveness of death'.

² Cf. *MIND*, No. 66, p. 226.

and will be judged variously according to the reader's bias. Nor can it be predicted whether intellectualistic readers are more likely to be moved to indignation, or to a blind refusal to credit their champion's apostasy. Still if any of them should hold that Mr. Bradley's *had* 'revoked,' or at least *had* so exposed his hand that the game was up, one could well understand what was meant. He has certainly laid his cards on the table in all sincerity.

Nevertheless, if I had myself to say whether Mr. Bradley had revoked, I should answer 'not quite'. Even in the most advanced position taken up in these *Essays* he is not strictly quite a pragmatist.¹ So long as a thinker continues to cast a slur on our human knowledge as being 'practical makeshift' or 'fiction' and to hanker, however ineffectually, after a generically different sort of truth, he should not strictly be called a pragmatist.

I hasten, however, to add that I have no desire to exaggerate the importance of this difference. The points on which Mr. Bradley can now be quoted as agreeing with pragmatism seem far more numerous and important than the differences for which he still contends. It will be well to enumerate the chief ones.

(1) There is now agreement about the nature of truth, though not quite about its nomenclature. There are not actually in existence any truths which are absolute. Mr. Bradley declares that all truths are 'relative'; we prefer to say that all are 'improvable'. True, the pragmatist gets at his belief in the 'relativity' of truth empirically, by observing the process of truth-claiming and the working of the sciences, whereas Mr. Bradley may still hold (as he originally did) that it is deducible as a necessary consequence from the conception of the Absolute. But this does not alter the result that in point of fact no truths are absolute. Not even the metaphysical doctrine, which affirms that an Absolute may, or must, exist. For as a philosophic doctrine this is a truth-claim like any other, and like any other, afflicted with incompleteness, liable to error, and capable of improvement. Mr. Bradley's own additions and improvements to his doctrine would establish so much at least, even if it were not manifestly a confusion of thought to imagine that a human opinion *about* the Absolute could participate in the absolute truth of the Absolute's own opinion of itself.

¹ This is not to say, of course, that he will not appear such to intellectualists. For these hardly ever have any clear and strict conception of pragmatism, and so have no eye for such fine differences as I should recognise.

(2) It is now agreed that all truths are useful ; ¹ *i.e.* all are instruments of life.

(3) Likewise that all are selective.²

(4) Likewise that all truth is personal. And this not only in the sense that personal feeling may enter into, and taint, even our final 'theoretical' conclusions, and that therefore a plurality of philosophic answers to the same question is theoretically possible,³ but also in the sense that common truth is not strictly a fact, but a *façon de parler*.⁴

(5) It is now agreed that the whole of man's nature must be taken into account by philosophy and that 'intellectual satisfaction' is *not* the whole of it. The truths of religion and poetry, so far from being inadmissible in a philosophic context, now seem to afford more anchorage to the philosophic soul than merely theoretical consistency.⁵ Even where we still read that "the theoretical criterion, for myself, is in theory supreme" (p. 317), it is reduced to a 'special want,' and its 'supremacy' has become a mockery and a tautology. For it exists only 'in theory' and bestows on it no right to the control of life. Practically there is some ground for the apprehension that the disparagement of 'theoretical consistency' may impair, in those who are too readily satisfied with Mr. Bradley's extremer statements, that intelligent control of the instinctive impulses and appetites which is the true biological function of the 'reason'. This function however is equally incompatible with the rationalistic analyses of the 'reason' as 'pure' and independent of vital value and with irrationalistic revolts against the government of the soul which it has taken the struggles of æons to evolve; and it is entirely mistaken to jump from

¹ "I agree that in the end no truth can be wholly idle. A truth that makes no difference to truth is to my mind an impossibility" (p. 122). "According to this practical creed there is in the end no truth for us save that of working ideas" (p. 132). *Cf.* also p. 445. I do not repeat quotations I have already given above.

² *Cf.* p. 329. f.

³ *Cf.* "For many persons metaphysics would issue . . . in theoretical scepticism . . . and this may be the intelligent outcome of a sincere metaphysical endeavour," p. 445.

⁴ "The personal diversity of the individuals is not superfluous but essential" for . . . "it brings with it fresh quality" and "even so far as truth is common to the individuals, it must be taken none the less as modified in each case by its fresh context," p. 121. "Our sense of value, and in the end for every man his own sense of value, is ultimate and final" p. 132. "There is a sense in which we may maintain that every truth, however old, is new at any time when it is affirmed. And, for myself, I agree that in this sense no judgment ever is repeated," p. 334.

⁵ *Cf.* the passages quoted above, *sub* iv.

the non-existence of absolute truth to the conclusion that henceforth one truth-claim must be as good as another. To declare that action is the test of thought is not to deny that it is usually better to look before we leap.

(6) Mr. Bradley, however, is no longer disposed to dispute the imperativeness of action. "If I am to live at all I must act" he now declares (p. 465), and he would probably also admit that every thought is an *act*,¹ though not perhaps the corollary that therefore the alternatives to every thought should always be considered.

(7) As regards the 'making of truth' we learn that "the creations of the intellect everywhere are real. The substantiated terms and relations into which analysis breaks up the continuity of the given, are no mere errors or simple instruments" (p. 473). This clearly revokes "there is no tenable point of view from which I can be properly said to make truth" (p. 338).

VIII.

What then remains to constitute any difference of principle between Mr. Bradley's developed views and pragmatism? Nothing, it would seem, but the Absolute, which remains to the end as the *caput mortuum* of the time when absolute truth and theoretical consistency seemed the *ne plus ultra* of philosophy.

But it is a very much modified Absolute, notable for "its insistence and emphasis on an all-pervasive relativism," and not to be mistaken for "that false absolutism" which asserts the reality of one-sided distinctions (p. 470). This is no longer an Absolute to conjure with. It is no longer a God-engulfing soul-destroying monster that brooks no equal and no other. It has become a 'tender-minded,' 'irenical' creature, like Royce's Absolute (which is of course the prototype of James's), that has accommodation for anybody and anything: in short it has become quite harmless.

But has it thereby as greatly bettered its intellectual, as it has its moral, position? The trouble is that it appears to have become not merely harmless, also quite useless. It is no longer possible to say what its functions are, either (a) theoretically or (b) practically.

(a) It is no longer an imperious necessity of thought, forced upon the mind by a supreme craving for theoretical consistency. It no longer even pretends to satisfy this craving, nor is the craving itself the *ultima ratio* of human in-

¹ Cf. p. 326.

telligence. Intellectually indeed its position is getting very precarious. Even if we do not insist too severely either on the flaw in its pedigree, *viz.* the awkward self-contradiction of trusting a 'relative' truth to reveal an absolute, or on the difficulty it obviously has in escaping from the pragmatist objection that a functionless entity is meaningless and cannot really be accepted, it is avowedly only one out of several intellectual alternatives. Mr. Bradley himself admits that one of these, theoretical scepticism, is quite legitimate and an intelligent interpretation of the situation.¹ A contented acceptance of 'relativity' unaccompanied by theoretical 'despair,' would seem to be another. In short the Absolute seems to be merely a metaphysical overbelief which happens at present to please Mr. Bradley best, for reasons that are probably historical.

(b) The practical functions of the Absolute are equally hard to discover. It seems more otiose even than the Absolute in James's *Pragmatism* that merely issued free passes (that cost it nothing) to cheap trippers bent on a "moral holiday". It explains nothing, not even how it comes to be dissociated into finite centres, and still less why these finite centres should be forever warring with each other.² It helps nobody, nobody at least who is not already convinced that it helps. All its positive functions, even that of giving the general assurance that all is well 'somehow,' have now been transferred to 'religion,' and so fall to what must presumably still be called a 'lower' level—though it is the highest there is for man. In short it is intrinsically nugatory and continues to exist simply because it is wanted. To want this sort of Absolute may not do you any good, but it assuredly does no one else any harm.

The epistemological value of the Absolute therefore is no longer negative. It has risen to zero. The Absolute no longer vetoes every intelligible account of human knowledge. Hence the pragmatist strike against the Absolute must be solemnly called off. The Absolute has *abdicated* and resigned all its functions. Its 'tyrannis' no longer drives to revolt all who deem themselves free and responsible agents. And to quarrel with a prodigal father about an issue of this kind seems to be worse than an irreverence, an irrelevance. Rather let us agree that the *Essays in Truth and Reality* are as fine a sepulchral monument as the Absolute deserves, even though it be of necessity a cenotaph.

¹ Cf. p. 445.

² Cf. p. 350 n.

IV.—LOTZE'S RELATION TO IDEALISM.

BY E. E. THOMAS.

SECTION 2.

THE task that lies before us is that of showing how there is contained in Lotze's philosophy two theories of the nature of reality, the one constituting a further development of Idealism, the other being antagonistic to it. Lotze does not hold that they are antagonistic theories; he considers that the pluralism involved in his philosophy leads to a Monism the same in principle as that put forward by Idealism. Now Idealism had contained an explanation of the fact that our various individual experiences possess a certain truth or falsity, which is independent of the nature of the individual as such. The driving back of all principles of unity to a necessary order of logical presuppositions involved in all experiencing whatsoever, makes it possible for us to see how it comes about that all persons have an experience of the same world. If, however, we cut away such logical presuppositions, and make the principles of unity which hold in any individual experience depend upon the concrete nature of that experience, then we start with a pluralism which demands an explanation for the fact that all these individuals, through the medium of their experience, come to the knowledge of a single world which claims to be the same for all. Thus the first problem of Lotze's philosophy is that of explaining how an over-individual reality can manifest itself in a plurality of individual experiences. The first thing Lotze does is to construct a theory as to the nature of the reality which is revealed in experience, and of its over-individual character.

With the Idealists the over-individual character belonging to reality was that of a self-subsistent order existing amongst the contents of experience. With Lotze it is that of self-experiencing being existing as the content of our experience. This latter conception of over-individuality is derived from

the growing emphasis which Idealism itself had laid upon the psychological aspect of experience. Idealism had made it quite clear that knowledge or experience can never go out of itself in order to seek for something to explain that which takes place within itself. Even for the purpose of constructing a theory as to the nature of ultimate reality, knowledge or experience has to fall back and draw upon a reality which exists within itself. At the same time, the very imperfection of knowledge sets before us the ideal of a completeness or perfection to which we must strive to attain. Again, since in experience reality is revealed to us, it is clear that the perfection of reality, which is set before us as an ideal, is no mere limit of experience, but a something which has, or can have, an actual being for self. It would be impossible for us to think that our experience could reveal to us a complete reality, unless that reality were a something finding being or existence independently of the revelations which our individual experiences give us of it. Thus the psychological movement in our experience assures us that there must be a realm of reality which possesses a certain independence of our experience; that which possesses this independence must, in its independence, find actual existence within the content of experience, and such existence can only mean existence for self, or consciousness of its own being, on the part of that which possesses it. Thus the problem with which Lotze has to commence his philosophy is as to how a reality existing in and for itself can find its existence and life in individual experiences.

The solution which Lotze offers, of this problem is, that reality is constituted through and through by individuals standing in various relations to one another. The perceptual relation is one such relation among others. Now this relation is that which gives a thing, in addition to experience of other things, an experience of itself, whereas other relations give it content and character. It is in its experience of itself that a thing attains to being or existence for itself, which is independent of its being experienced by anyone or anything else. Thus the perceptual relation introduces things into each other's experience and makes them live there, while at the same time it gives to each thing an existence independent of the experiences in which it is made to live. But the perceptual relation never gives content or character to that which exists in it; hence the reality which a thing possesses through its experience of itself is not dependent upon the nature or the fact of experience. If reality were thus dependent upon experience, then it would be upon its concrete

nature as constituting individuals, and the perceptual relation would be a relation between souls through the medium of which unity is given to reality. This is the conclusion to which Lotze was being driven. He avoids it, however, by what is, in reality, an arbitrary separation between experience as consciousness and experience as content. Reality is given through the medium of consciousness but is determined in its nature through the medium of content. Content possesses a nature which is independent altogether of the relations in which its elements stand to one another in the actual world of experience; but at the same time this nature has a determining influence upon the relations in which these elements come to stand; hence reality is made to rest in that which is altogether independent of the individual. This side of Lotze's philosophy constitutes his return to Idealism.

Lotze deals in the first place with the nature of this reality, which is revealed to us in experience. While psychological presuppositions of experience tell us of the existence of a reality which is independent of *our* experience, and while logical presuppositions of experience tell us that all reality is given in experience, and is dependent upon the conditions under which alone experience is possible, neither psychological nor logical presuppositions tell us as to the actual, concrete nature of this existence. The Idealists had made the mistake of seeking for the concrete nature of reality in the logical presuppositions involved in the experience of reality. They were wrong, for if the concrete nature of reality followed from its presuppositions, then reality would become empty; concreteness of existence, or the actual *what* of that which *is*, demands existence or being in and for itself, and over such existence presuppositions have no determining power. In order, then, to determine the actual and concrete nature of the reality which is revealed to us in experience, Lotze examines this experience from a point of view which is not logical but real. It is the point of view adopted by the natural sciences in seeking to determine the nature of things, and the laws according to which they behave in relation to one another. In adopting it Lotze seeks to show that what we have to do in order to know reality is not to construct it from abstract principles, or from the unity of such principles with the plurality of sense, but to be able to point to it within our experience, and distinguish it from that which is not real.

Lotze tells us that in our experience, reality is seen to be made up of three sides; we think of things as existing, of

events as taking place, and of truths as being valid. None of these can be reduced to the others, nor can they be cut off from one another. This is easily seen in the case of existence and occurrence, or, as it is sometimes called, of being and becoming; an object exists and yet, in its existence, is the subject of continual change. It is more difficult to see how validity is bound up with the reality of an object; we, as outsiders, make certain judgments about things, and in our judgments is to be found truth or falsity; it is in our judgments, then, that validity rests. Further, the contents of these judgments become formed into a systematic whole, which we call the system of truth, and the validity harboured by this system seems to be independent of the existence of that to which truth refers. If, however, validity is a constitutive moment in the reality of an object, something of the nature of judgment must belong to the object itself. This problem as to how judgment enters into the nature of a thing and becomes a moment constitutive of its reality, is concerned with the relations in which a thing stands to other things, and to ourselves, for it is in these relations that a thing comes to possess validity.

Now it is in the material world that reality first manifests itself to us; indeed, it is often the case that we think of this world as real even if nothing else is real. Lotze, therefore, commences his analysis of the nature which we ascribe to that which we consider as real by an examination of the nature of the material world. In this material world, he tells us, we come into contact with reality through the medium of sensation, a real thing consisting of a group of changing sense qualities. This change takes place in a regular way, or according to law. Now it is this existence of a principle of change amongst a group of sense qualities which gives rise to the conception of a thing as a something having permanence; the thing is now considered as the subject of change, and the sense qualities taking part in the change are considered as the attributes of this subject. Each individual subject has its own individual series of changes, taking place in a form of regularity peculiar to that subject, this form of regularity constituting the law of its being. Lotze says: "Thus it may be stated as a general truth, that our idea of that which makes a Thing what it is consists only in the thought of a certain regularity with which it changes to and fro within a limited circle of states whether spontaneously or under visible external conditions, without passing out of this circle, and without ever having an existence on its own account and apart from any one of the forms

which within this circle it can assume".¹ Thus the constitution of what we call a real thing implies, on the one hand, a changing sense content, and on the other hand, a law which regulates this change. It is this law of change which gives to the thing what we call its reality; or, it is through the law of change that the reality of a thing is given expression to or defined.

The question now arises as to how we are to understand this term 'law' in order that it may be intelligible as a principle of reality. Now the positive sciences seek to bring all reality under the conception of law; in doing this they have a certain aim or purpose, and it is from this aim that the term law takes its meaning. We are told that it is the aim of science to know reality; that is to say, science seeks to bring reality within the grasp of the human intelligence. Now the characteristic of our intelligence is that it seeks to find order in things, and as soon as it has done this it claims to understand that in which the order is seen to exist; laws are the abstract expressions used by the intelligence to hold in its grasp the order which it finds in reality. Law thus combines within itself a subjective and an objective moment; for it contains within itself a moment derived from ourselves, as standing over against the reality which we know, and also a moment derived from reality itself, as being ordered and as calling for interpretation through the medium of law.

Let us deal first with the subjective moment. It must enable us to give expression in our thought to the order which is seen to hold in reality. For this purpose we use what we call a generalisation, which consists of an enunciation of the facts which are to come under the law. In this form "a law is always a universal hypothetical judgment, which states that whenever C is or holds good, E is or holds good, and that whenever C undergoes a definite change into C¹ through a variation of itself C, E also becomes E¹ through a definite variation of itself E which depends on C".² Here we have more than mere generalisation, but as generalisation it gives us the form in which law is expressed and also an enunciation of the phenomena which have to be dealt with.

The subjective moment, however, contains more than mere generalisation; it involves an interpretation of the actual order that is seen to exist amongst the phenomena. Now there are many orders in the world. In the material world we have one kind of order, in the world of life another

¹ *Metaphysic*, sec. 26, English translation, edited by Bosanquet.

² *Logic*, sec. 265, English translation, edited by Bosanquet.

kind, and in human activity and institutions still another kind. This raises the question as to whether these various kinds of order can be interpreted in one and the same way, or given one and the same form of abstract, intellectual expression. For instance, the order in the material world, as material, demands that mathematical values shall be assigned to its various elements, and that the relations between these elements, whether in the matter of static or temporal relations, shall be expressed as mathematical proportions between the terms which stand in them. But the order in the living world seems to call for something more than a mere mathematical interpretation; it calls for the ideas of development, and of organic unity, and it seems difficult to reduce the content of such ideas to mathematics. In the case of human life the seeming inadequacy of a mathematical interpretation is still more pronounced. We must notice, too, that as we get farther away from a mathematical interpretation of order the more difficult do we find it to give clear generalisations or to formulate laws. Now Lotze maintains that where there is no mathematical interpretation of order there is no law. Speaking of law in the theoretical sphere he says it is a rule "which is such that there is a permanent proportion according to which definite changes in the results correspond to definite changes in the conditions".¹ According to Lotze then, the subjective side of law consists of the formulation of a mathematical proportion as interpreting the order which exists amongst phenomena, of whatever kind these phenomena may be.

We must ask, however, as to the reason for the difficulty we have found in applying law to the higher aspects of life; is it due to an increasing complexity in the material, and thus merely to an increasing degree of difficulty in finding out what mathematical proportions we shall apply to this material; or is it due to this, that the order in the living and human worlds is so different from that found in the material world that it refuses to be expressed as mathematical? Neither of these explanations will account fully for the difficulty with which we are here dealing. The real point of the difficulty lies somewhere else; it lies in the fact that we stand so far above the material world that we can contemplate it and grasp it in our intelligence; whereas, in regard to life, we ourselves are so much part of it, and share in it to such an extent, that we fail to break ourselves loose from it, fail to get outside of it, so that we can contemplate

¹ *Metaphysic*, sec. 32, English translation.

and understand it. Since this is the case, we may say that wherever there is understanding there is order; wherever there is order there is law; and wherever there is law there is mathematical proportion; but that there is something in the world which we cannot reduce to order, and which, therefore, we cannot understand, not from the nature of this something, but from the nature of our relation or attitude to it. This is, indeed, the view which Lotze takes up, for he tells us that there are many people who come to a knowledge of that which is deepest in the world, not through intelligence, but through feeling, not through understanding, but through intuition. Such a knowledge of reality cannot be the systematic knowledge which finds its expression in truth; nor can reality as revealed in such knowledge be a systematic whole rendered such by the presence within it of a clearly defined order. Intuition is the power of the mind to grip, in one moment of apprehension, the wholeness of the reality which is presented to the mind, without laying the elements of this whole side by side in the unity of an order or system. Feeling is the indication of the failure or success of the interaction of the mind with reality; in the case of pleasure the unity of our nature and the unity of the reality, the experience of which gives us pleasure, are in harmony; whereas in the case of pain there is discord between these two. If then, reality, in its deepest being, can be known through feeling and through intuition, this knowledge cannot consist of an interpretation of reality, for such an interpretation places the one who makes it above and outside of the reality interpreted; it must consist of an active participation in the life and movement of reality; the being of the reality experienced enters into, and becomes part of, the life of the experiencing subject, and the life of the experiencing subject enters into the being and life of reality: through the clash and harmony of this interpenetrative life reality moves, and in its movement experiences itself as living, pulsating being. This, then, is what Lotze means when he tells us that what is deepest in the world may be apprehended through feeling and intuition. Reality moves, not from order, but into order; and that which guides it into order, and which is not experienced through intelligence, is that which is deepest in reality, and which may be experienced through feeling and intuition.

We come now to the objective factor in law. We have said that law gives expression to an order as existing in phenomena; that as such it is a product of our thought, and therefore subjective. Now that to which law gives expres-

sion, is that which, according to Lotze, gives reality to phenomena; for whenever a group of facts can be considered, as changing among themselves in such a way that these changes can be formulated as law, then these facts constitute a real thing. What we have now to ask is whether order can perform this function of giving reality to a group of phenomena.

Now the principle of a reality must be a something in the phenomena, holding them together and, since it must regulate change, having a determining influence upon that which it holds together. Order, however, is merely static and therefore cannot perform these functions; it only attests to the fact that they have been performed. Things hold together, not because they are ordered in this or that way but because they possess some deeper affinity to which order gives expression. Change moves through or into order, but order neither brings about nor guides change. Lotze recognises this, and tells us that facts are held together, not by mere order, but by an inner coherence or inner relation as existing within them; he says it is "an inward relation which exists between two facts and constitutes the ground at once of their conjunction and of the manner of this conjunction".¹ It is on this account, he tells us farther on, that a law which gives expression to this coherence claims objective truth. To say, however, that facts belong together, or happen together, because they possess an inner coherence, does not carry us very far; we require to know something of the nature of this coherence. Lotze now tells us that this inward relation between facts consists of a singleness or individuality of activity, as running through, or being undertaken by, the plurality of sense qualities which are seen as cohering together. This singleness of activity he regards as an individual law; by this he seeks to show that activity never does and never can take place unless guided or determined through singleness or unity of principle; that this singleness of principle rests in the single whole formed by the plurality of sense qualities bound together in the constitution of a thing. Thus each individual or particular thing carries within itself, and, as peculiar to itself, the principle through which it acts; this principle is not objectively universal, in the sense of standing in independence of what is or of what takes place, and of constituting a norm in accordance with which what is or what takes must order itself.

¹ *Logic*, sec. 266, English translation.

Lotze, however, maintains that this principle can be expressed as a mathematical order existing among the facts. He thus takes it from the sphere of the merely individual and gives to it an aspect which is general or universal. Since, according to Lotze, all reality involves mathematical proportion, a thing, in harbouring such a proportion as the law of its being, connects itself with what is predicable of all that is real. What we have to determine is how a mathematical proportion can give expression, at one and the same time, to a principle of individuality or uniqueness and to a principle of universality.

Let us take an example of this mathematical determination in individuality. In a piece of marble we have a grouping of the sense qualities, colour, hardness, temperature, shape; these sense qualities are permanent in the sense that marble always has some colour, some temperature, some shape; but they change their specific determinations under changing conditions. At one time the colour is greyer than at another, according to the variations of light which fall upon it; at one time the marble is colder than at another according to the varying temperature of the atmosphere; in one liquid it sinks, in another it floats. Further, these changes take place according to a definite mathematical equation, and this way of changing is so bound up with this particular unity of sense qualities that any alteration in it would destroy the individuality of the object. If what we consider as marble were suddenly to float in water, or to change, in the slightest, its specific gravity, then we should no longer consider it as marble but as something different. This shows us, then, that individuality can and does live through mathematical determination.

But the function of law as mathematical consists in its application to an infinity of cases like the one from which it is drawn. Now in order to give expression to individuality a law must bring out that which makes a thing unique, or which makes it a systematic whole having singleness of meaning; whereas in order to be applicable to an infinity of cases a law must leave out or neglect a great deal of the concrete nature, and, as it would seem, of the individualising content of that to which it applies. The question we have now to ask is how these two functions are combined. We can best answer this question by taking concrete examples. Sodium-oxide combines with water to form caustic soda according to the equation $\text{Na}_2\text{O} + \text{H}_2\text{O} = 2\text{NaOH}$. Now what this law does is to draw attention by means of a certain formula to certain substances and to the relation between

them. It is clear that the whole nature of each substance is not expressed in its chemical formula ; the fact that it has this or that colour, that it is of this particular weight, etc., is not represented there. The formula only represents the chemical constitution of that of which it is the formula. Thus although the formula leaves out certain characteristics of the substance, it does so, not in order that it may be general and applicable to an indefinite number of cases, but that it may the better concentrate attention on one aspect of the individuality of the substance. But it may be said that this chemical formula or equation is universal, in that it can be applied to an infinite number of cases. If we look closer, however, we shall find that this is not really the case, but that what we consider infinity of application is no more than the expression of an infinite range of possibilities along a given direction, and that change in this direction takes place in accordance with the individuality of the substances entering into the relation represented in the equation. This infinite range of possibilities consists of differences of spatial magnitude. In the example we have taken the sodium oxide may be of larger or smaller bulk, when the water will be of larger or smaller volume, and the resulting caustic soda will also be greater or smaller in proportion. As an example from another branch of science we will take the law which states that the force which ponderable bodies exert on one another is inversely proportional to the square of their distance. This law draws attention to certain individualising characteristics in substances ; it draws attention to bodies as possessing weight ; further, it draws attention to a certain individuality of relation entered into by these bodies through the medium of these individualising features. This relation is that of the attraction and repulsion which the bodies exert upon one another, and in and through this relation the bodies involved come to form an individual whole, the nature and unity of which is expressed in the above law. The universality or infinity of application of this law is bound up with the infinity of spatiality through which the individual whole may change ; the bodies may be of any size, and at any distance from one another, but these variations all bring with them corresponding variations in the force with which they act upon one another.

Thus a law combines the two moments, the one representing individuality or uniqueness of structure, and the other representing an infinity of possible changes along a spatial direction ; it does this through the fact that spatial

direction exists within individual structure. The mathematical aspect of law is bound up with this spatial aspect of being, and it is through the fact that spatiality enters into the structure of all material existence that laws which can be expressed in mathematical formulæ come to claim universality in the sense of an infinity of application. A law always gives expression to this peculiar union of a spatial, infinity-producing element with the individualising element in a thing's being.

We must, however, be careful to note that Lotze does not give all these arguments to prove that a law is an expression of individuality, which at the same time includes within itself a universalising element. He only shows that both of these elements are contained there.

This explanation of law, of mathematics, and of their relation to reality does away with the distinction between *a priori* and *a posteriori*. Further, laws are no longer mere generalisations; mathematics no longer a mere system of eternal truths. Nor, again, are laws expressive of a form as distinct from a content, both of which belong to the reality to which the laws refer. Law and mathematics are expressive of concrete existence in an individuality which moves through spatiality; this spatiality is characteristic of all that is real and therefore introduces into the individuality of law a moment of universality.

But, while law gives expression to the individuality of the real, it does not tell us in what this individuality consists. We have seen Lotze maintaining that this individuality consists of a singleness of activity as holding together the concrete detail belonging to what we regard as an individual thing. He seeks to elucidate this theory by comparing a real thing to a melody. He does not, however, work out the comparison, but leaves this to the reader. Now there are no two melodies exactly alike; each melody is a unique whole, and its uniqueness is determined by the nature, arrangement, and sequence of its notes, and by the variations in tune, pitch, and rhythm which belong to them. It is this unique and systematic wholeness that constitutes the melody's individuality. We must notice, however, that this individuality is created through the activity of a mind. It is not a something which has come into existence of itself, or which mere notes have produced of themselves. It requires a composer to bring together the various notes and to give them unity, by making them all moments in the working out of a single emotion. Moreover, if the melody is to live again it must be sung or played, and the singer or

the player must give again to the notes the soul which the composer gave to them in the first instance. Thus the individuality of a melody is the creation of a soul or of a life having wealth and richness of emotion; it is a partial expression of the meaning of that life. If then things are to be individual, it would seem that they too must come to individuality through a like creative activity which gives to them a unity of meaning.

We have now to ask, first, where the activity creative of individuality springs from, and secondly, what is the meaning which things, as individuals, possess. In answer to the first question, Lotze tells us that this creative activity centres in the things themselves. He maintains that sense qualities are the constitutive elements in a conscious, creative activity, and that the individual whole which lives in and through such activity is what we understand by a real thing. If, then, a real thing is the creator of its own individuality, and if this individuality is constituted by a unity of idea or meaning running through the plurality of content which finds existence in the being of the thing, it follows that a real thing must possess a soul or mind of its own; for it is only in mind that unity of idea or meaning, and unity of activity can be found. And this is the conclusion at which Lotze arrives. He bases his conclusion upon facts drawn from our own personal experience. We are unity, he tells us, because we are conscious of ourselves as unity, and it is only in our consciousness of ourselves that we find existence at all; we are active, he maintains, only when we can refer to ourselves all the changes which take place in ourselves. The unity and activity which belong to an individual thing are, according to him, essentially the same, and thus require a self-feeling on the part of the thing itself. The next question that has to be answered is as to the meaning of a thing and how it springs from the consciousness belonging to that thing. We know that in creating a melody the composer can trace his emotions, his ideals of life, his purposes, and his aims as formative elements in its constitution. When the melody is sung or played by another, this other experiences something of the same fulness of life as that which inspired the composer. It is this fulness of life which constitutes the meaning of the melody. Mere unity of life, mere consciousness or self-feeling can never be creative of meaning; in order to be creative consciousness must be full, rich, concrete. If the soul of the composer contained no more than mere notes, he could never compose a melody which would contain a meaning. And it must be the same:

with things. A principle of unity can act in relation to a plurality of sense content, so as to form this content into a real thing, only if it can limit a thing's being in this direction rather than in that, bring this quality into connexion with that, separate this quality from that, and so on; and it can only perform these functions if it can regard these qualities from a point of view which involves a fulness and concreteness of existence beyond that which is given in the mere qualities themselves. Lotze, however, denies to a thing this fulness and concreteness of life; or at least he denies that we can ever come into touch with such fulness of life as belonging to a thing. He supposes the question to be asked, how a principle of unity can act in relation to the plurality of sense content, so as to form this content into a real thing. To ask such questions, he tells us, is to ask how being is made. We do not create being; we find self-creative individuality in the world as constitutive of the being of its real elements; and all that we can do is to find some form from which we can understand this living, creative, individuality. This form is that of the unity of soul life,—deeper than this we cannot go.

We may sum up Lotze's theory of the reality of things by saying that, according to him, a thing is real in so far as it is a creative individuality centring in an individual mind; the activity of such an individuality manifests itself to us in the form of a law guiding the changes of a plurality of sense qualities; this law being individual in the sense that it gives expression to a unity of idea or meaning as resting in that in which it manifests itself. Thus his theory of reality has gone to show that the real in our experience consists ultimately of minds or souls, each one of which has an existence in and for itself.

And now comes the question as to whether souls are related to one another through an order prior to themselves, or through relationships which centre in themselves; which are not reducible to, nor derivable from, order; and which we may call perceptual relationships. On the latter alternative the individuality or soul life of a thing could be entered into, and partially determined, by ourselves, through the perceptual relation. On the former view a thing would gain its individuality by being connected with a self-subsistent order independent of all that is, or that takes place; and we could not enter this individuality except by connecting ourselves with this order, which could not be considered as constituting concreteness and fulness of soul life. Lotze's philosophy contains both of these views, the

one as being expressly held and worked out by him, the other as the conclusion which he would not accept, of certain premises which he did accept.

The first stage in the working out of these opposite views is that of showing how the empirical relations in which things stand to one another have their basis in something deeper than themselves. So far we have been dealing with objects as single things, disregarding their relations to other things. Lotze now tells us that a thing cannot be regarded as real when standing by itself out of relation to other things. We consider an object real when we can give it a definite place in a complex of things. "For not to be at any place, not to have any position in the complex of other things, not to undergo any operation from anything nor to display itself by the exercise of any activity upon anything; to be thus void of relation is just that in which we should find the nonentity of a thing if it was our purpose to define it."¹ Among such relations, we shall find, Lotze includes the perceptual relation. "*To be*, means to *stand in relations*, and being perceived is itself only one such relation beside other relations."²

We must notice, however, that it is not altogether possible to reduce the properties of a thing to mere relations in which that thing stands to other things. For instance, we think of a thing as possessing some colour of its own, which serves as a basis for all the modifications which that colour may undergo; and we think the same as regards the other properties of a thing. But, although we consider a thing as having a nature of its own, which serves as a basis for all the modifications which its properties undergo, yet we cannot determine what this nature is; for the full reality of a thing is that in which the thing lives and finds its being, and is determined by the relations in which it stands to other things.

Lotze now distinguishes between those relations which enter into the being of a thing and modify its nature, and those relations in which we mentally place a thing in order that we may the better describe it or know it. As an illustration of the latter we may say that sugar stands in a certain position among the carbon compounds, or that a certain kind of orchid has a certain place in the orchid family, or that man occupies the highest place among the mammals. It is a matter of very great importance whether the systematic unity which we give to classes of this kind is

¹ *Metaphysics*, chap. i., sec. 7, English translation.

Outlines of Metaphysics, sec. 10, English translation, by Ladd.

one which exists merely for our knowledge, or one which also exists amongst things and has a determining influence upon the movement of reality. But it is clear that these relations are not those which are meant when we describe relations as entering into and modifying the nature of a thing, and as therefore being necessary to the reality of a thing. If all the other animals in the universe were to be banished from existence, leaving man as the only animal, it would not destroy man's reality or existence; but if a man were taken out of all spatial relations or out of all his social relations then he would cease to be at all. *

To turn now to the perceptual relation which, as we have seen, Lotze regards as "one such relation among others," the question arises whether it determines our knowledge but not the reality of a thing. Lotze tacitly holds the view that this relation is not a condition of the reality of that which is perceived, but that it is a condition of the reality of ourselves who perceive. The perceptual relation is thus one-sided in its determining influence; for it does not enter into and determine the nature of that which is perceived, but carries the object perceived into the life of the perceiver, which it thereby enriches and modifies. Since this is the case the world must be split up into two realms, namely, that containing the beings whose reality is determined by the fact that they perceive things external to themselves, and that containing things whose reality exists independently of the fact that they perceive or are perceived. For whatever consciousness of themselves we may give to things as a condition of their reality, we do not consider that this consciousness includes perception on the part of these things of other things which exist outside of them. Thus we come to have a world of subjects on the one side, and a world of objects on the other side; objects having an existence in and for themselves through the fact that they feel their own being; subjects having an existence through the fact that they perceive or know the being of objects, which stand outside of them. This is the view which Lotze holds; he tries to tone down the sharp opposition between these two realms by maintaining that things are minds, but since things are not perceiving minds in the same sense as subjects are, the need is felt of showing how the perceptual relation bridges the gap between them. Lotze, however, does not undertake the solving of this problem; he is content to maintain that the perceptual relation exists, like other relations, between things, and to leave the problems which such a position involves. By thus disregarding the

nature of the perceptual relation, he comes to view the ultimate unity of reality as one which is determined in its nature by the relations in which things, as such, stand to one another. If souls are contained in this unity then they, too, are held together just as things are.

To turn now to the nature of the empirical relations which determine the natures of things and the changes which take place in them, we find Lotze maintaining that these relations exist, not between their terms, but in them, as the states through which they exercise activities in reference to one another. He arrives at this conclusion by trying to answer the question as to how relations determine the changes that take place in things. The first thing he does is to maintain that the changes which enter into a thing's being are brought about by activity on the part of that thing. Now we certainly think of action as being different from mere change. We consider ourselves as active when the changes that take place in our being are brought about by us in order to realise some end which we set before ourselves; we merely change when what takes place in our life is not consciously subordinated to an end or purpose with which we identify ourselves. For instance, we change in that we become old and that our bodies decay; we act when we take exercise to make ourselves strong and healthy. The same is true of a thing. We cannot say that a thing consciously sets before itself an end which it seeks to realise, or that it consciously identifies itself with some ideal or principle, and that when its changes are directed towards the realisation of such an end or ideal it acts. But we do say that a thing acts when its changes proceed from what we recognise as its being, or when the thing manifests its whole nature or some essential aspect of that nature in the changes which take place within it; on the other hand, the thing merely changes when the alterations that take place in it are due to outside circumstances which do not enter into its nature. Lotze recognises this difference. He takes the case of a moist body, A, which, by becoming dry makes a dry body, B, wet; he recognises that a change has taken place in both A and B, and that this change is effected by the moisture; he tells us that this change is not brought about by an active cause existing in A or B, or in both together; that is to say, the change in A and B is not one which we can describe as living in the activity of A or B, or of both A and B together. It is impossible, however, to make this distinction ultimate; for all change must be brought about by activity exercised by a larger whole, of which the objects, which merely change, are

parts. In the case of a moist body making a dry body wet, the heat in the air, the proximity of the two objects, and their relative temperatures, the amount of water vapour in the air, etc., form a single whole whose nature manifests itself in an activity producing change of moisture in these two objects.

The next step taken by Lotze is to show that all action is reciprocal action. When a thing acts, it does so in reference to other things. Lotze argues that it follows from this that all change (and henceforth we will use the term change as meaning active change or change brought about by an active principle existing in that in which the change takes place), consists of reciprocal action between the objects involved in the change. He tells us that if the activity of one thing in relation to another consisted of activity on the one side and passivity on the other, then, since the active element A would find several passive elements C D E standing along with it in the world, it would really have no way of choosing the passive element in reference to which it should act. Before A can act in reference to another object C, this object must already influence it by informing it, as it were, of its existence, and by directing it to itself. It can only do this if it is already active in relation to A. Thus when one thing acts in reference to others, all the things taking part in the change must be active in relation to one another; that is to say, all action must be reciprocal action.

Seeing then that all change consists of reciprocal action, the question arises how relations between things can be that which brings about this reciprocal action. Lotze tells us that a thing can only act from itself; it cannot act from that which is external to itself. Hence if A and B are to act upon one another it would seem that influences must pass between them, enter each other's being and modify it; it is from this modified nature that a thing changes; or, it is the actual modification of its nature which constitutes change on the part of a thing. But influences cannot detach themselves from a thing, float in a formless void, and then attach themselves to another thing. The ordinary meaning attributed to the term 'relation,' according to which it is a something existing between things, may be considered as enabling us to solve the difficulty; for a relation thus constitutes itself a thread or bridge along which influences can pass from one object to another. But the same difficulty arises here again, since the influence must detach itself from the object and attach itself to the 'Between'; and

Lotze thus there arises the necessity for another 'Between,' giving rise to an infinite regress. It is clear then, that if a relation exists "between" its terms, it cannot enable us to understand how one thing comes to change in reference to others.

Lotze now goes further and maintains that relations are nothing but their terms in certain states of themselves. He tells us that reciprocal action only takes place between certain things and under certain conditions. For example, A will only enter into reciprocal action with C; it will not do so with D or E. Further, A and C will only interact when they are in certain states of themselves (a^1) and (c^1). In such states of themselves things take up certain attitudes towards one another; they take note of one another; they become 'susceptible and receptive' towards one another, and it is this which constitutes the actual relations between them. The question now arises as to how things are able to take up these attitudes towards one another. Lotze answers it by maintaining that their natures are adapted to one another. For instance, (a^1) and (b^1) interact with one another, and to this interaction a consequence (f) is attached; (a) and (b) do not interact and no consequence is attached to them. The interaction and its consequence is based upon a unity of adaptation between the natures of the interacting moments, which may be summed up in the formula $a^1 + b^1 = f$. This unity of adaptation constitutes a law possessing universal validity. Such universal validity, however, is different from the universal applicability possessed by individual laws which are principles of reality. The validity possessed by a law which sums up unity of adaptation means that this unity is dependent upon the natures of the things adapted, and not upon their actual existence, nor upon any changes which this existence may undergo. Thus that which lies at the basis of relations is a unity of the natures of these things standing in them. This unity possesses the characteristic of eternity or timelessness in that it 'holds good,' or is 'valid of' that of which it is the unity, and it is therefore called a unity of validity.

What we wish to show now is, that the unity of validity is an order extending over the whole of reality. It is an order in that it is a systematic unity of natures, each of which must, from the nature of the case, remain eternally the same. It extends over the whole of reality in that reciprocal action, which is rendered possible through it, is universal. Lotze tells us that there is a constant inter-

dependence between all that exists, by which the states and changes of one thing are conditioned by the states and changes of all others ; a world in which this reciprocal action between all things did not take place would be one about which no scientific conclusion could be established, and in which no event could be anticipated.

We may sum up Lotze position at this point by saying that, for him, the real consists of individuals or minds related to one another through activities dependent upon an order, which is independent of these individuals, as such, and which stands altogether out of the reach of existence and change.

V.—DISCUSSIONS.

THE NECESSITY FOR A UNIVERSAL IN REASONING.

'WHETHER it is a personal peculiarity, or whether it is due to the "New Logic" I do not know, but Dr. Mercier seems to have developed an incapacity for understanding argument of any kind whatever.' So says Mr. Shelton in his rejoinder (MIND, No. 92). This is a serious charge, and if it is true, I must be in a parlous state, so it behoves me to examine myself strictly to see if I am really open to it. At the very onset I come upon what seems a corroboration of his charge, for I certainly have an incapacity for understanding how an incapacity can be developed. That an incapacity may exist and increase I can understand, but how it can be developed is beyond me. I start, therefore, under the depressing suspicion that the charge may be true; and when I examine Mr. Shelton's arguments I grow more and more uneasy, for at each step it seems to be confirmed.

I suggested that inversion is not a valid inference: against this Mr. Shelton argues that the style and manner of the advertisement of my *New Logic* are quackery. I have tried and tried, but I cannot understand this argument. It seems to me no refutation of my suggestion.

I suggested that Dr. Bosanquet and his critics are playing a game of spoof: Mr. Shelton counters this suggestion with the argument that my profession are spoofing the public and putting public money in their pockets. Again I fail to understand the argument. It seems to me no refutation of my suggestion.

I called the old Logic a game: Mr. Shelton's argument against my assertion is that it is foolish and meaningless. For the life of me I cannot understand that this is an argument at all. It seems to me more like abuse than argument. However, I received it in a humble and contrite spirit, and explained what I mean by a game; and now Mr. Shelton's argument is that my *New Logic* is a game, and still I can't see the force of the argument against my assertion.

Again, I argued that if the syllogism is the only mode of reasoning, it is odd that no one ever uses it; and especially that logicians never use it; and if it is the clearest mode of reasoning and the best, it would be a great advantage to me if Mr. Shelton would put into syllogistic form those arguments of his which I cannot

understand. To this argument of mine Mr. Shelton counter-argues that he has nowhere and at no time put forward views on logic which imply an obligation to express the reasonings of every-day life and of controversy in syllogistic form. Again I cannot understand his reply. It seems to me no reply at all. I should have thought that if every argument can be expressed in a syllogism, Mr. Shelton's arguments can be so expressed; and whatever his views on logic, they certainly include the view that every argument can be expressed in a syllogism. In my ignorance, and from the incapacity that I have developed of understanding any argument whatever, this reply seems to me strikingly similar to the reply I used to give in my earlier years when I was asked something quite beyond my comprehension. The reply I used to give, which I am afraid was not quite ingenuous, was 'I know, but I shan't tell you'.

Then again, Mr. Shelton says that the arguments I used about spoof would prove everything spoof; and again I cannot understand, for I used no argument at all. I merely made an assertion; and now a glimmer of hope shines upon my despondent mind, for I have for some time suspected, and now the suspicion broadens into certainty, that what I call assertion Mr. Shelton calls argument; and when he says that I do not understand his arguments he means that I do not accept his assertions. I am confident that I have now hit upon the true explanation, for I find on looking back that every one of Mr. Shelton's arguments is what I should call an assertion; and I have noticed the same peculiarity in other logicians. The difference between an argument and an assertion is one which they do not appreciate, and to them they are the same thing. All is now explained, and I recover my natural buoyancy of spirits.

I feel now that I have discovered what Mr. Shelton would call the methodology of interpreting his writings. One must scrutinise his terms, and accept them in meanings that are different, and sometimes opposite, to the ordinary meanings, and then everything becomes clear. The crooked is made straight, and the rough places plain. For instance, he says that if I would try to appreciate the gist of his criticism in the *Quarterly Review*, several things would happen. I might obtain some glimmering of the reason why he applies the term quackery to my attempt to confuse the sphere of logic with the sphere of life. I shall begin to realise how the hotch-potch into which I throw the fundamentally different processes of induction and deduction depreciates the value of such ideas as my book does contain.

I have tried to appreciate the gist of his criticisms in the *Quarterly Review*, but his account of my book is such a travesty that I feel sure he has jumbled it up with some of the six or seven other books he was reviewing at the time. Every other book on Logic that I have been able to consult speaks of the transition from de-

duction to induction, or of the inductive syllogism, or reduces inductive reasoning to syllogisms, or in some other way conveys the doctrine that inductive reasoning and deductive reasoning merge and blend into one another. Mr. Shelton himself assures us that all reasoning, and therefore inductive reasoning, can be expressed syllogistically. I am positively the only writer on Logic who draws a hard and fast line between induction and deduction, and insists that they are mutually exclusive. I insist in more than fifty pages, more than one-eighth of the whole book, on the irreconcilable difference between induction and deduction. I begin in the introduction to draw the distinction, I continue to insist upon it throughout the book, and in my final chapter on the faults of the existing Logic, I state as one of the gravest of these faults, the omission of this Logic to show a sufficient distinction between induction and deduction. Not once throughout the book do I use either term except in clear, sharp, unmistakable distinction and contrast to the other; and Mr. Shelton says I throw them into a hotch-potch. It is evident therefore that he is either referring to some other book, or he is using words in a sense exactly the opposite of the sense in which they are commonly used.

I should very much like to obtain a glimmering of the manner in which I attempt to confuse the sphere of logic with the sphere of life. If I wanted to do it I should not know how to begin to confuse two spheres. I may have done it inadvertently, but I can assure Mr. Shelton that I have not attempted to do it. It is about the last thing I should attempt, for I see no use in doing it. So he is quite right in saying that I have not a glimmering of the manner in which I attempt it. But if he means, as perhaps he does, that I have attempted to formulate the logic according to which the reasonings of our daily lives are conducted, I plead guilty at once to the indictment. It seems that Mr. Shelton would have Logic to haunt the interspace 'twixt world and world; he would relegate it to the interstellar spaces and a temperature of absolute zero; he would keep it removed to an immeasurable distance from the lives and affairs of men; and if he means by Logic the old Logic of tradition, I am not prepared to quarrel with him on this point. I should be delighted to see it removed to some region beyond the most distant nebula that the most powerful telescope we possess reveals to our knowledge. It would be quite as useful there as it is on this earth, and its power for evil would be reduced to a minimum. If Mr. Shelton regards my efforts to formulate the logic by which we actually reason in the affairs of life as wicked, or immoral, or stupid, as his reference to my 'attempt to confuse the sphere of logic with the sphere of life' seems to imply, I can only contemplate with astonished amusement his attitude of mind. I don't know whether Mr. Shelton would admit that we common people who are not logi-

cians, and cannot reduce Disamis to Darii, ever reason at all. Perhaps he would not—more likely he does not care whether we do or don't; but I assure him that we do at any rate try to, and that it is of interest to some of us to trace the operations of our minds, and discover how they do their work of reasoning. This is what I have done in my *New Logic*. Mr. Shelton, I am delighted to find, is perfectly willing to admit the existence of other logical forms than the syllogism, but he is not willing, it seems, that I should discover and describe them; or at any rate, he is not willing to admit that I have discovered or described them. Willing to wound, but yet afraid to strike, he does not deny that I have done so, but he will not admit it. He does not deny it, unless we are to take as a denial his assertion that while professing to carry out the explication of what is implied in propositions, I have not really done so. This is not criticism. It is bald assertion, without any attempt at substantiation or proof. But as I have already found, Mr. Shelton probably does not recognise any difference between assertion and proof, and considers that making an assertion is as good as proving it. I have devoted 100 pages of the *New Logic* to the explication of propositions, have described very many methods of explicating them, and have given scores of instances of explication. Mr. Shelton says that for me to call the old Logic a game is foolish and meaningless. I do not care to follow the example of introducing abuse into controversy, or I should call Mr. Shelton's denial that I have done what I have done, silly. However, I prefer to say that it has no relation to fact. It is an assertion so absurdly destitute of grounds that it will discredit Mr. Shelton with any one who has read the book, but for them of course it is not intended. It is intended for those who have not read it. If the multitude of implications that I have explicated from propositions does not include all that could be explicated, Mr. Shelton can no doubt find those I have neglected; and I challenge him to find one. I may say that I have myself since discovered a few that have been omitted, and I shall be interested to see if Mr. Shelton can discover them.

I am amused at his attempts to put the argument *a fortiori* into syllogistic form. He seeks the aid of Mr. Alfred Sidgwick, who primes him with an old device of Jevons', and the three of them contrive to produce a moustrosity which Mr. Shelton admits is not the form that the mind naturally adopts in this kind of reasoning, and he says that the complicated major premiss is not the universal through which we reason. Then what on earth is the use of it? Why take so much trouble to concoct it? What object is served by casting the argument into a stupid, cumbrous, complicated, ridiculous form that is admitted to have nothing to do with the process of thought? Mr. Shelton admits that in this case at any rate, though it is possible to torture the argument into a syllogism, the syllogism is not the true form of the thought. If all reasoning

is through a universal, there must be a universal in this argument. How is it that you cannot find it, Mr. Shelton? Does your failure not raise a doubt in your mind whether there is any universal there at all? If the syllogism is not the true form of the thought, what is the necessity for a universal? And if the syllogism is not the true form of the thought, what is the true form of the thought? You cannot tell me, Mr. Shelton, because you do not know; but I know, and I will tell you. This is one of the many places at which the *New Logic* steps in, and solves *ambulando* problems at which the old *Logic* stands helplessly nonplussed. Mark now, how plain a tale shall put you down.

If A—is greater than—B
and B—is greater than—C

Then the second premiss gives us that C is, for the purpose of the argument, implied in B; and by Minor Canon C of the Canons of Explication may be substituted for B in the first premiss, which gives us

A—is greater than—C.

Is this not simple? Is it not even elegant? and does it not correctly describe the actual process of thought employed in reaching the conclusion? At any rate, compare it with the monstrosity of triple authorship formulated by Mr. Shelton, and say which is *prima facie* more likely to be correct. As soon as the premisses are stated, we see at once that A must be greater than C. But to say that A is greater than C is to substitute C for B in the first premiss. By what right do we make this substitution? The right is given to us by the second premiss, which reveals that C, for the purpose of the argument, is implied in B; the purpose of the argument being, of course, to find the relation between A and C. This is my account of the process of thought. It is thus that I explain the method by which the conclusion is reached. I think it is the correct explanation, but whether correct or no, it is an explanation. The syllogism is not. Mr. Shelton and Mr. Bradley admit that it is not. My Method of Explication does explain what it pretends to explain, and it is a general method which explains many other inferences which are just as inexplicable by the syllogism as the *a fortiori*. It was not made *ad hoc*. It was a general formula into which the *a fortiori* happened to fit.

To convince me of the necessity of a universal in the *a fortiori*, Mr. Shelton says he will state an argument that is *formally* similar to the *a fortiori* but invalid, and invalid for want, I suppose, of a universal. So he states an argument that is not formally similar to the *a fortiori*, and one from which a perfectly valid conclusion can be drawn. The matter is so elementary that I am almost tempted to put on those pedagogic airs with which Mr. Shelton addresses me, as if he were the headmaster and I were the youngest and newest and stupidest sniveller at Rugby or Harrow. The

argument that he says is formally similar to the *a fortiori* is A is next to B, and B is next to C. I cannot see that this bears any resemblance to the *a fortiori*. To get an argument formally similar to the *a fortiori* it would be necessary to fill up the same form with different matter. L is greater than M, and M is greater than N is formally similar to Mr. Shelton's specimen of the *a fortiori*, and is of course itself an argument *a fortiori*; and it is impossible to frame an argument formally similar that is not. The nearest we can get to the *a fortiori* without duplicating it is the argument A is equal to B, and B is equal to C; and this is so far similar that we can get from it a corresponding conclusion—A is equal to C. This also has baffled all the efforts of inquisitorial logicians to torture it into a syllogism, and is explained with the utmost ease and with perfect satisfaction by the Method of Explication.

If A—is equal to—B
and B—is equal to—C

then the second premiss gives us that C is, for the purpose of the argument, equivalent to B, and it may therefore, by Minor Canon C of the Method of Explication, be substituted for B in the first premiss, which gives us

A—is equal to—C.

'The validity of the form of the *a fortiori* depends entirely on the relation asserted.' I am not sure that I understand what is meant by the validity of the form of an argument. In my view the validity of every deductive argument whatever depends entirely on the application of the proper method of explication, and this does depend entirely on the relation asserted. It is a great step gained to have got a logician to see this in one case. Perhaps in time he will progress so far as to see that it is true in every case; and by that time he will recognise how absurd it is to preach to me the homily contained in his concluding paragraph. "New Logics" are so apt to miss the universals that are implied but not expressed in ordinary reasoning, and to confuse actually valid inferences with formally valid inferences. The *a fortiori*, though valid is not *formally* valid.' Could there be a more utter condemnation of the form which professes to be the form of all reasoning? 'A logic, like that of Dr. Mercier, which attempts to displace the syllogism, is so liable to contain forms of reasoning which are accurate only by accident, that is, the accuracy of which depends on the particulars of the argument rather than on its general form.' Was there ever such an absurdity as to allege that the argument *a fortiori*, the most telling and cogent argument that it is possible to devise, is accurate only by accident? What makes the *a fortiori* the most telling and cogent argument possible is that the implication it contains stares at us more impudently, and forces itself upon our notice more urgently, than does the implication of any other compound proposition.

Mr. Shelton says that from A is next to B and B is next to C it does not follow that A is next to C. Obviously it does not, but why should it? Because, says Mr. Shelton, it is formally similar to the *a fortiori*. It is nothing of the sort. It is no more formally similar to the *a fortiori* than a blackbird is formally similar to a cow because each has a head at one end and a tail at the other. It is the middle part that matters. The one argument is no more similar to the other than proximity is similar to superiority in size, and therefore the method that is applicable to the one is not applicable to the other. But though that method is not applicable, it does not follow that no method is applicable. I think I do Mr. Shelton no injustice if I surmise that he is of opinion that no inference can be drawn from the premisses A is next to B, and B is next to C. It is true that no inference can be obtained by the syllogism; and it is true that no valid inference can be obtained by the method applied to the *a fortiori*; but there is an implication in these premisses which may be employed to obtain a relation between A and C if we apply to them the proper method of explication. For the purpose of the argument we must state the premisses thus:—

If A—is next to B, and B is next to—C

and then, by applying Minor Canon B, we may substitute for this compound ratio the equivalent ratio 'is next but one to,' and thus we get the conclusion

A—is next but one to—C,

giving us the direct relation between A and C which it was the purpose of the argument to find; a perfectly valid conclusion, and one that on occasion may be very useful.

There is no confusion here of actually valid inferences with formally valid inferences. The inference is actually valid, and perfectly valid, but whether or not it is formally valid I neither know nor care. It is valid, not because of its form, but because it conforms to rule. Mr. Shelton calls the *New Logic* a formal logic, and although he is a strenuous defender of formal logic he brings this charge against the *New Logic* as a fault. He is welcome to call it formal if he likes. I don't know what he means by formal, and I doubt if he knows himself. If he means that I cast all arguments into one form, he has not read my book, or he has read it to very little purpose. But whether formal or not, my Logic is regular. It is canonic. It provides a rule for every case; and the validity of every argument depends, not upon its form, but on its conformity with rule. If an argument is invalid, it is because the rule applied is not appropriate to the relation asserted in the premiss. If an argument is valid, it is validated by the application of the appropriate rule. Mr. Shelton will naturally ask how we are to know what rule to apply in any given case, and he will

be horrified to be told that we can only find it by exercising our wits. This is an innovation indeed. The old logic is an apparatus to enable us to reason without thinking—without reasoning, in fact. Its conclusions could be obtained by machinery, and Jevons actually constructed a machine, which he exhibited with applause at the Royal Society, which could obtain every conclusion obtainable by the old Logic, and more besides. Admirable aspiration! Noble achievement! Illuminating commentary upon the old Logic! It is nearly, but not quite, as intellectual as a machine, a thing of cog-wheels and levers!

The accuracy of arguments conducted according to the *New Logic* 'depends' says Mr. Shelton 'on the particulars of the argument rather than on its general form'. I don't know how he reconciles this statement with his accusation that the *New Logic* is formal, but anyhow he brings it forward as a reproach to the *New Logic*. For my part I regard it as a merit. The old Logic has been trying for two thousand years to squash every argument into one single form, and it has failed, and failed ignominiously. What is the use of going on with it? How much longer do logicians want?

'What Dr. Mereier does not appear to realise is that the inference *a fortiori*, simple as it appears, assumes a universal which is not expressed, and which the form in which I have put it expresses inadequately.' It certainly does: for once I can agree with Mr. Shelton; but what Mr. Shelton does not appear to realise is that I deny most positively and strenuously that a universal is necessary to argument. I deny most positively that there is any universal in the *a fortiori* or in any of the great majority of arguments. A universal is in the eyes of logicians as necessary to the complete formulation of an argument as in the eyes of the Greek philosophers was the necessity that all bodies should tend to move downwards; as necessary as in the eyes of the Sacred College was the movement of the earth round the sun; as necessary as in the eyes of biologists was a special act of creation for the formation of every species of plants and animals; as necessary as it used to be for grooms to make a hissing noise when they were grooming their horses; as necessary as it now is to throw some of the spilt salt over the left shoulder in order to avoid disaster; as necessary, in short, as any other irrational superstition. We all know Lord Bowen's description of a metaphysician. He is a man in a pitch-dark room looking for a black cat—which isn't there. There is some excuse for the metaphysician. His room is pitch dark, and he has no reason to believe the cat is not there. But the logician is searching for the universal in a room that is now illuminated with the effulgence of the *New Logic*, and still he maintains that his black cat is there. He has been groping about for it for two thousand years, and he is no nearer finding it than he was at first; but he goes on groping, and is as confident as ever that it is there.

Mr. Shelton and Mr. Sidgwick, with the assistance of Jevons, contrive to produce something that looks a little like a universal if you don't examine it too closely, but they are obliged to confess that it is not the universal they are searching for. What is the inference? What is the plain inescapable inference? That if they were to look a bit longer they would find it? To a logician this may be a valid conclusion, but any other human being on the face of the earth would say, as I say, *de non apparentibus et de non existentibus eadem est ratio*. If you have looked for a very large thing in a very small space for two thousand years and have not found it, you must show some very conclusive reason if you wish others to believe it is there. What is your reason? That every argument *must* contain a universal. But why must it? Suppose I say this belief is only a groundless superstition, is there any reason to suppose it is not? To this question I know of no reply, except that as Aristotle said so, it must be so. Well, that does not convince me. As Mr. Shelton comes the pedagogue over me, I will come Mr. Barlow over him, and acquaint him with the story of The Ancient Physician and the Hole in the Heart, which as he has never heard it, I will now proceed to narrate.

Once upon a time there was a physician named Galen, who spent in physiological speculations such time as he could spare from his usual occupation of spoofing the public and putting public money into his pockets. He knew that the vital spirits are carried to all parts of the body by the arteries, but he could not understand how they passed from the arteries of the lungs to the arteries of the rest of the body. In order to get from the one into the other, they must pass through the septum of the heart, and therefore Galen knew that there must be a hole in the septum of the heart to let them through, and so sure was he that it must be there that he taught that it is there, and every one believed him. For fourteen hundred years Galen was as great an authority on medicine as Aristotle on Logic. For fourteen hundred years anatomists looked for that hole in the heart, and could not find it; but for fourteen hundred years every anatomist taught that there is a hole in the septum of the heart. No anatomist would venture to pit the evidence of his senses against the authority of Galen, for Galen was as great an authority on his subject as Aristotle is upon Logic. At length an anatomist named Vesalius had the temerity to believe his own eyes in spite of the authority of Galen. He declared that there is no hole in the septum of the heart, and he was at once confounded by the clamour of the orthodox logicians—I mean anatomists—and narrowly escaped being burnt alive for his profanity; for Galen was a very great authority, and in the sixteenth century the power of authority was as great in medicine as it is now in Logic. *De te fabula narratur*, Mr. Shelton.

Let me put it in other ways, for it is necessary to spread butter on bacon for logicians. They say there is a universal in every

argument. Very well. Theirs is the assertion, and on them lies the burden of proof. How do they discharge this onus, and prove their assertion? They do not prove it. They cannot prove it. They merely assert and reassert. They do not quite call down fire from heaven to consume the blasphemer who questions their assertion, but they treat him with haughty superiority, as an ignoramus who has trespassed upon sacred ground, and is displaying an antic and contemptible ignorance. According to their own showing, a single negative instance is enough to disprove a universal affirmative, and I bring forward a negative instance in the *a fortiori*. How do they meet this destructive instance? Do they show that it is no instance, for that the *a fortiori* does contain a universal? Not a bit of it. They acknowledge that they cannot find a universal, but they construct a sham universal, which they admit is a sham, and claim that that disposes of my case. And this is Logic!

It is not much use appealing to the reason of logicians, but I hope that some who are not logicians may read this discussion, and I appeal to them. It is asserted that there is only one mode of reasoning, and that this is by bringing a particular case under a general law. There are certain arguments that cannot be explained on this principle, and my contention is that if that is so, then either there must be more than one mode of reasoning, or if there is but one, the method described is not that one. To this it is replied that although these arguments cannot yet be explained on this principle, yet they will be so explained some day, if only we give enough time to the matter. I rejoin that as they have been two thousand years over it, and have not yet succeeded, it is unlikely that they would succeed even if they took several more centuries; and besides this, I bring forward a new principle which does explain to a nicety these arguments which the logical principle does not explain. I am willing to admit that in some cases reasoning does consist in bringing a particular instance under a general law, but I say that this is not the only principle. There are others; and by the application of these others I can and do satisfactorily explain the cases that cannot be explained by the universal. If a corresponding feat had been performed in any other science, the professors of that science would most certainly examine the new process and ascertain whether it did in fact do what it is asserted to do. They would try it, and test it, and probe it, and investigate it, and ascertain whether it is a valid process or not. But logicians will not do this. They will have no dealings with a thing so unholy as a novelty. Aristotle laid down for all time the principles on which reasoning is conducted, and even to test a new principle would be an admission that Aristotle may possibly have erred; which is an admission that no self-respecting logician would dream of making. Besides this, it would be troublesome. It would need an effort. Nay, it would require

the exercise of reasoning, and logicians very naturally and properly distrust their own powers of reasoning; so instead of examining my proposals, they treat them either as the professional logicians do, with dumb obstinacy, or as Mr. Shelton does, with what I may call the haw-haw method. What can an outsider, a mere physician, know about logic? This intruder is to be snubbed and kept in his place. He must be told of philosophical principles of which he has probably never heard, and treated to scornful and supercilious advice; his profession is to be sneered at; and altogether he is to be treated as an intrusive outsider.

Mr. Mayo also adopts the haw-haw method of controversy. He must excuse me if I refuse to take him seriously. He tears a sentence of mine in half, removes it from its context, interpolates words of his own, and having thus altered it, argues from it what I seem to think. He can better infer what I actually do think, if that has any interest for him, from what I actually say, and what I say is that his assertion that I 'misinterpret the significance of the judgment and [to] suppose it to consist of two terms arbitrarily linked together by a copula' is so ludicrously opposed to my whole teaching as not to be worth refutation. The whole of my chapter on the copula is a refutation. I have never said, thought, surmised, or imagined, anything so absurd. I suppose it is the study of the old Logic that teaches its votaries to attribute to their adversaries opinions they do not hold, and ignorance of which they are not guilty, and this confirms me in my desire to see it superseded by the new. Mr. Mayo further accuses me of being so little able to understand the significance and utility of Logic. I think I understand its significance pretty well, but as for its utility, I thought its claim to utility had long been abandoned. As far as I know, no one for the last thirty years has suggested that Logic has any utility. Even its professors no longer make any such claim, and I don't suppose Mr. Mayo's accusation is anything but a bit of haw-haw.

CHAS. A. MERCIER.

ELEMENTARY LOGIC.

IN his interesting review (MIND, No. 93, p. 98) of my *Elementary Logic*, Captain Knox mentions a point of disagreement between us which I should be glad to clear up if possible. It involves two questions about a certain quality which, as every one agrees, belongs essentially to descriptive names: (1) Shall we call this quality 'vagueness' or 'indeterminateness'?; and (2) Shall we regard it as a defect?

It seems to me that both these questions are merely verbal, at least as between Captain Knox and me; that is to say that they do not point to any difference of opinion between us upon matters of fact. But that need not make them any the less useful questions to raise, since they lead to further explanations of meaning.

As regards (1) I am willing to use either term, or both indifferently. As said at page 197 of the book, they are intended to express merely the fact that, however elaborately any descriptive name may have been already 'defined,' there is always a possibility—of the most practical kind—that further definition of it is required for a given purpose. Descriptive names, as such, fall short of *perfect* definiteness, though *sufficient* definiteness (for a purpose) is very often achieved. And it is *insufficient* definiteness only that we need to guard against.

As regards (2) Captain Knox's objection may perhaps be removed by my free admission that *when* we know that the indeterminateness has not caused ambiguity in a given case, the 'defect' is seen as a virtue *so far as that case is concerned*. Certainly, the more we can dispense with irrelevant details the better, and there would be no sense in complaining of a judgment for "not telling us what we don't want to know". But there is also another point of view to be considered, namely the period before this wisdom about the particular case has reached us. Looking at descriptive names generally, as instruments *capable* of use, we must confess, I think, that the very quality which enables them in fortunate cases to leave out irrelevant details enables them also to leave out relevant ones. That they have this unfortunate liability seems to me a defect, even though it be (as we both think) irremediable. May we not rightly complain of judgment in general that it inevitably runs a risk of not telling us what we do want to know?

Where Captain Knox mistakes my meaning is in his supposition that "the 'defect' in question . . . is the defect of ambiguity"

(p. 102). Its existence—as I conceive it—is prior to the discovery that an actual ambiguity is present (or absent). It is recognisable only while we are considering in a general way the instruments used in reasoning. There ought, I think, to be no real difficulty in agreeing that a defect in actual reasoning is not necessarily the same thing as a defect in the instrument with which all reflective reasoning is performed.

Another possible objection should also be mentioned, in case it has influenced Captain Knox's view. Some people may think it impractical to complain of things which cannot be mended—since between an 'irremediable' quality and a 'necessary condition' it is hard to find any difference. So it is, I admit. Yet in view of the fact that the necessary conditions of reasoning are such that they open the way to a particular kind of insidious error, it does seem to me practical to dwell on them. If we cannot finally conquer this evil thing, we may at least try to be on guard against its operation.

ALFRED SIDGWICK.

VI.—CRITICAL NOTICES.

Scientific Method in Philosophy. By the Hon. BERTRAND RUSSELL, F.R.S. Oxford: Clarendon Press, 1914. Pp. 30. 1s. 6d. net.

It seems quite probable that Mr. Russell's Speucer Lecture will attain in its series much the same unique position that Huxley's *Ethics and Evolution* holds in that of the Romanes Lectures. Which is to say that once again a selecting committee has chanced to appoint some one who had something to say. Mr. Russell has a number of things to say, and says them very well, with both humour and incisiveness, and with sufficient modifications of his previous doctrines to show that he is a real live philosopher who is in no danger of fossilising just yet.

He begins by deploring the influence on philosophy of ethical and religious motives which import human values into it, and the neglect of the methods which ensure the steady progress of the sciences. As examples of such corruptions he instances the notion of 'the universe' and the antithesis of 'good' and 'evil'. The former he believes to be "a mere relic of pre-Copernican astronomy" which is "an almost undiscussed postulate of most metaphysics". For all that "the apparent oneness of the world" may be "merely the oneness of what is seen by a single spectator or apprehended by a single mind". Quoting and following James, Mr. Russell criticises the Spencerian accounts of the conservation of energy and of evolution as "giving an air of absoluteness and necessity to empirical generalisations," which cannot be erected into universal *a priori* laws, without ruining all philosophic structures based thereon, if there is any failure in their absolute exactness. Evolutionism exemplifies also the second 'hindrance' to scientific philosophising, *viz.* "undue preoccupation with ethical notions," alike in the "older and less radical" form represented by Hegel and Spencer, and in the "more modern and revolutionary" represented by Pragmatism and Bergson. For both believe in 'progress,' on the strength (with the exception of Hegel, to whom "it would be unfair to attribute any scientific motive or foundation") of "a very small selection of facts confined to an infinitesimal fragment of space and time," which is probably not an average sample of the course of events. There follows a delicious protest against "the philosopher's self-complacent assumption" that a development which has resulted in him "is indubitably an advance". Such ethical notions are an-

thropocentric and pre-Copernican attempts "to give legislative force to our own wishes," which impede "that receptivity to facts which is the essence of the scientific attitude towards the world". But ethics is only "the art of recommending to others the sacrifices required for co-operation with oneself," and ethical philosophy always remains more or less subjective. "Even vegetarians do not hesitate to save the life of a man in a fever, although in so doing they destroy the lives of many millions of microbes." It is "thus never impartial and therefore never fully scientific".

Having thus 'extruded' from scientific philosophy 'the universe' and ethical valuations of it, Mr. Russell inquires what specific problems are left for philosophy. Philosophic propositions, he answers, must be (1) applicable to everything that does or may exist, not *collectively* however (for the 'universe' is not the subject of any proposition) but *distributively*. (2) They must be *a priori*, incapable of being proved or disproved by empirical evidence. Philosophy thus becomes indistinguishable from logic which is "an inventory of possibilities, a repertory of abstractly tenable hypotheses". Its method is essentially analytic, not synthetic, and its power is illustrated by the analysis of Kant's problem in the Transcendental *Æsthetic* into one of logic, one of physics and one of epistemology. It then appears that "our knowledge of physical geometry is synthetic, but is not *a priori*. Our knowledge of pure geometry is hypothetical. . . . Thus with the separation between pure geometry and the geometry of physics, the Kantian problem collapses." It is removed, as an unnecessarily complicated assumption, by Occam's razor and the principle of economy.

The controversy about realism also benefits by analysis, as both sides have been far from clear as to what they were discussing. When it is asked: 'Are our objects of perception *real* and are they *independent* of the percipient?' neither term is defined. Yet both are highly ambiguous, and the questions are indeterminate and unanswerable. Mr. Russell himself is disposed to hold that "objects of perception do *not* persist unchanged at times when they are not perceived, although probably objects more or less resembling them do exist at such times; that objects of perception are part, *and the only empirically knowable part*,¹ of the actual subject matter of physics, and are themselves properly to be called physical; that purely physical laws exist determining the character and duration of objects of perception without any reference to the fact that they are perceived; and that in the establishment of such laws the propositions of physics do not presuppose any propositions of psychology, or even the existence of mind" (p. 29). Mr. Russell is not sure whether such a view will be recognised as realism, but confident that it avoids the difficulties both of realism and of idealism: he concludes by re-

¹ Italics mine.

commending his method as one which will lead through tentative and partial advances to solid and durable progress, though it will abandon "many of the more ambitious and humanly interesting problems of traditional philosophy".

Apart from its intrinsic interest Mr. Russell's lecture forms a convenient compendium to his present views and a good introduction to his recent Lowell Lectures on the External World. But for those who have been watching the development of his thought it has great interest also as revealing a very marked, and apparently conscious, move in the direction of pragmatism. This development is so important and so little likely to be noted by the numerous philosophers who have not hitherto troubled to understand either Mr. Russell or pragmatism, that it seems incumbent on me to expound it in some detail.

The bond of sympathy between Mr. Russell and pragmatism is of course the respect both have for the method of science and its progressive achievements, in contrast with the sterile quibbling that fills the history of dialectical philosophy. Pragmatism indeed has always conceived itself as the philosophic recognition of the method of real knowing, the scientific method, and regards its own denial of absolute truth as merely the reverse side of the infinite progressiveness of scientific truth. As soon as Mr. Russell, therefore, stimulated apparently by the subtle problems to which the modern theory of relativity gives rise, interested himself in physics and its relation to mathematics, he was bound to discover that absolute truths neither exist nor are needed in the sciences. He now, accordingly, clearly implies, though he does not explicitly state, the pragmatic character of our actual truth. When, *e.g.*, he says (p. 24) that where no empirical means of distinguishing between alternative hypotheses can be found we are entitled to choose the mathematically simplest (= most convenient) assumption, he seems to be not only describing scientific procedure correctly, but to be conceding all that pragmatism asked for.

He and pragmatism are now agreed also that perceiving *must* make a difference to objective perception (*i.e.*, that there is a certain 'making of reality'), that the business of philosophic reflection is *analysis* before *synthesis*, that the terms 'real' and 'independent' are so ambiguous that the controversies about them have long been meaningless, that the Kantian account of Space and Time is a manifest and hideous confusion of perfectly distinct problems,¹ that truth must be attained by the gradual and continuous correction of error (p. 18), that the monistic notion of the 'universe' is assumed quite uncritically, that metaphysical 'systems' are pervaded by ethical assumptions and based on a pitifully slender and utterly partial and subjective selection of facts.

These last two charges seem to me to be quite true, but so un-

¹ As I have long been pointing out. Cf. *Axioms as Postulates*, 40-43.

avoidable that I cannot draw from them Mr. Russell's inferences, but feel bound to point out that he himself has to commit the offences he censures. He too must select, and can only select from the data he experiences, in constructing his hypotheses, and if these are "a selection from the sum total of what exists" (p. 8), *his* beliefs also may be determined by his manner of selecting rather than by the nature of reality. But what is gained by stigmatising this universal and inevitable procedure as a 'subjective falsification' (p. 6)? It seems better to reconcile oneself to the selectiveness of all truth and to make the best of it. Again, is it wise to condemn so unreservedly the intrusion of 'ethical' considerations when you have yourself to practise 'economy,' and to shave the bristling exuberance of 'possible' hypotheses and alleged 'fact' with Occam's Razor? This procedure, doubtless, is scientifically right and proper, but surely the 'principle of economy' is an ethical notion if ever there was one, a typically human way of ascribing legislative force to our convenience. It naturally occurs to us because we have a brief span of life in which to effect our scientific purposes; to a non-human mind that was not pressed for time but disposed of all eternity it would be unmeaning or repugnant. I defy Mr. Russell, therefore, to show any good reason why (on his principles) the objective course of events should proceed in a way that is simple, easy, economical or convenient for us.

Nay I will go further and suggest that the notion he still cherishes that submission to fact is the essence of the scientific temper (p. 15) is itself a leading case of an 'ethical' human ideal, and one that is impossible and self-contradictory to boot. The mere fact that he thinks it *desirable* and desires it gives it the 'subjective' taint he desires to avoid; the mere fact that it must be desired if it is to be attained, renders it impossible and contradictory, because the desire to attain it *ipso facto* humanises it. Nor is its adoption requisite for scientific progress; the scientific inquirer may in point of fact have any sort and amount of human interests, provided that he also has *docility* enough to learn from experience and self-control enough not to let his bias overcome and blind him to such 'facts' as his inquiry brings him to. But docility and self-control differ widely from mere 'receptivity' and 'submission'. Lastly is there not a risk in assuming in advance of experience that the 'facts' revealed in human experience are incommensurable with the ideals rooted in human hearts? Is it not quite as possible *a priori* that our 'science' is as human as our 'ethics' and our 'metaphysics,' and like them strives (with imperfect success, no doubt) to increase human satisfaction? At any rate this possibility should be seriously examined by a philosopher who holds that *philosophy is the science of the possible* (p. 17) and so should not be tied down to a vindication of the actual, but should endeavour also to explore the boundless expanses of the possible.

If Mr. Russell will grant me this, I will confess in return that the evidence on which the belief in progress, and indeed all optimistic interpretations of experience, rest is far more precarious than is at all agreeable to the widespread human desire to blink unpleasant facts. But this is only to say that we need a large measure of faith to live and that all faiths are risky. But so is all life, and it is not clear that by refusing to take this risk we should contrive to live less dangerously. Moreover the belief in progress seems clearly to be one of those beliefs which, as James had the glory of discovering, tend to verify themselves.

On some minor points also I cannot altogether follow Mr. Russell. That philosophic contentions are often such that "they can be neither proved nor disproved by empirical evidence" (p. 17) seems a poor reason for calling them *a priori*, as well as being hard to reconcile with Mr. Russell's empiricism elsewhere, and to be getting perilously near to Ostwald's definition of 'philosophic' problems as pseudo-problems. The fact itself is true enough (if we take 'proof' in the old impossible sense), but its simplest explanation is that such propositions are postulates, and largely methodological. Unfortunately Mr. Russell does not yet appreciate the logical function of postulates.¹

Again while agreeing that the validity of the notion of universe has been quite unwarrantably assumed, I cannot but think that Mr. Russell's 'absolute pluralism' is a little too bold, and that it would have been sufficient, and safer, to question the monistic assumption without denying it dogmatically. When so questioned, it is apt to disintegrate into a dissolving series of treacherous confusions.

On the question whether Mr. Russell's present metaphysic should still be called 'realism' I cannot speak with much authority; but it seems to me to be a distinct improvement on its predecessors. If the relation between the 'objects of perception' and the unperceived 'real objects' is no longer one of identity but only one of resemblance, it seems to leave room for a moderate humanism, which merely insists that the process of perceiving has to be allowed for and must not be overlooked altogether. Again if the objects of perception are "the only empirically knowable part of the actual subject matter of physics," it becomes pertinent to inquire whether science should not confine itself to this knowable part, and whether the trans-perceptual real objects are really needed. This inquiry might perhaps establish that the supposed need for them was emotional rather than scientific, and rested largely on a misinterpretation of the apparent stability of objects of perception which was capable of a simpler explanation. *E.g.* it might be preferable to construct ideally constant 'things' by a process of selecting the more stable out of a mass of less regularly recurrent experiences.

¹ As appears from his *Knowledge of the External World*, p. 222 f.

I do not, of course, venture to suggest that all these interpretations of the data are likely to commend themselves to Mr. Russell. But his recent writings have made so much common ground between him and pragmatism that there no longer gapes between them one of those insuperable abysses which separate the main types of philosophic thought, and render mutual comprehension and philosophic progress so impossible.

F. C. S. SCHILLER.

The Philosophy of Religion. (International Theological Library.)
By GEORGE GALLOWAY, D.Phil., D.D. Pp. xii, 602. T. & T. Clark, 1914.

THE publishers of this series of important books had asked the late Prof. Flint to undertake this volume; and if he had been allowed to do so, we should no doubt have had a work of much ability and force. Failing Dr. Flint they were well advised in asking Dr. Galloway to take his place; and he has walked in the footsteps of his teacher and given us a study worthy of a philosopher and at the same time Christian in position and tone, though without discussion of specific Christian doctrine. His former works have shown him to be a frank, competent and thoroughly equipped writer on religion in its comparative and philosophical aspects, in whom reverence and devotion to spiritual interests go hand in hand with a scientific spirit and uncompromising love of truth. The task he has now discharged is a much larger and more exacting one than any he had before undertaken, being no less than to show what religion is in its whole manifestation, how it has arisen out of human nature, and how there is truth in it which is a necessary complement of our knowledge of truth as a whole. To do all this requires a knowledge of many sciences, historical, psychological and metaphysical, of which as he himself confesses no one can be equally master. Religion has to be set forth from the earliest to the maturest form it has assumed, that we may have the great phenomenon fully before us. Psychology must be consulted at every step, to determine as far as possible the roots in human nature from which religion arose, and the relations in which it stands to other activities of the human mind; and when all this is done the central and essential question has to be dealt with, Is religion true? Is the knowledge it claims to bring us really and actually knowledge and not a mere imagination without any solid basis in facts? Does religion as it now is place us in the centre of the universe, and enable us to understand, as it claims to do, the world we live in and our place in it?

It is thus that Dr. Galloway conceives his task, as he states in the very interesting and comprehensive preface with which his

book opens. His philosophical position is that of personal idealism as we know from his former works. It is not obtruded; only at page 421 does he refer to the doctrine of monads which he holds to be the key to our relation to human beings and to God. In his opening account of the history of the Philosophy of Religion we find him putting aside the intellectualism of Hegel, the empiricism of Comte, the pragmatism of James, and every philosophical extreme, always for reasons every one can understand; and throughout the book he exercises a calm and sober common sense. His interest in religion itself is everywhere conspicuous, and no less his conviction that religion is a reasonable thing and that no superstition can belong to the essence of it. It is possible now to say things on this subject which could not be said twenty years ago without disturbing the equanimity of good people, and our author makes full use of his liberty. His book will form a wholesome tonic for religious thought; the critic of existing beliefs will find weapons in it, and the quiet student of religion will be much encouraged. I refer to such statements as that on page 168 that it is an error to regard a dogmatic system as the fixed and authoritative basis of a Church, instead of the historic and growing expression of the Church's spiritual life. *Per contra*, we read on the same page a protest against the tendency to reduce religious doctrines to symbols, because a Church could not hold together in which this view prevailed.

The phenomenological part of the book comes first, explaining from history what it is that is to be examined. Dr. Galloway has read much on the history of religion, and we find here independent discussions of questions belonging to the beginning of religion, Animism, Totemism, Magic, the earliest objects of worship, sacrifice, prayers, etc.; on all which matters he appears to me to be guided to sound conclusions. He rejects Mr. Lang's doctrine of the primitive monotheism of certain Australian and African tribes, and he regards magic as a growth quite apart from religion, neither its parent nor its child. His views on the early stages of the great religions are right and sensible. An admirable feature of this part of the book is the discussion of the psychological side of the beginning of religion, where it is shown simply and vividly how religion sprang of necessity out of man's nature, all his faculties of intellect, feeling and will conspiring in the movement by which he was led to it.

On coming to the end of the jungle of primitive beliefs and practices above which the great religions rear their mighty heads, Dr. Galloway comes to the question of the classification of the religions. He does not classify them at all, either into Nature Religions and Ethical, or as Siebeek into Primitive Religion, Morality Religion and Redemptive Religion. The distinction into religions which have grown and those which have been founded is not here alluded to at all, but is referred to in the brief descrip-

tion of the rôle of the prophet which comes later in the book. Instead of a classification Dr. Galloway proposes an arrangement of the material, according to the great changes which came over the nature of religion in the course of its growth, and caused the religion of the tribe to pass into that of the nation, and national religion into the universal type. Here I can scarcely criticise Dr. Galloway, his arrangement is so closely similar to my own, put forward in my *History of Religion* many years ago. The changes from tribal to national and from this to universal religion, are set forth on a large scale; but the statement on page 111 that we do not know from direct observation how a number of clans became fused together to form a nation, may be questioned. Mommsen's *History of Rome* gives us a good deal about it, and the histories of Israel. Dr. Galloway counts only three universal religions, Buddhism, Islam and Christianity; but Judaism should be added to the number. The promise of universalism was not, it is true, outwardly fulfilled; adaptability was wanting in this case. But all the views and motives which make a religion universal lay near the heart of Judaism; and the Catholic spirit both of the founder of Christianity and of its foremost missionary were born in it; not to mention that the foremost missionary hymns of Christianity are found in the Old Testament.

The psychological discussions which accompany the historical part of the book show Dr. Galloway to be fully abreast of the most recent investigations in this field and are of singular interest. The way in which the historical and the psychological elements of the book interact and support each other is one of its chief merits; there is enough of *History of Religion* to provide examples for the *Psychology* to operate on, and the *Psychology* in its turn is a noble supplement to the *History*, and shows it to have been on the whole a reasonable process. The discussions of characteristic aspects of developed religion which are taken up after the beginnings are disposed of, show the same blending of the historical and the psychological at a more advanced stage of the study. A quotation or two from this chapter (I. iii.) will show the style of treatment better than general description.

"Though appearing within a Christian environment and appealing to Christian ideas, the revival movements which from time to time sweep over a country are attended by phenomena which reveal the working of violent and elemental feelings. And they owe part of their attractiveness to this fact. Subconscious processes prepare the way, and at the psychological moment, and without prevision on their part, men and women are borne away by a flood of emotion. Ordinary religious reserve is broken down, a psychical infection runs through the crowd, and tense feeling finds utterance in songs and confessions, in extravagant joy and fits of weeping. The revival has higher and better features; but the fact remains that it is commonly linked with phenomena which

belong to a lower stage of religion, and are not without danger to the higher religious life " (pp. 154, 155).

"It is intelligible how a Church, in the war against heresy, is impelled to lay the greatest stress on sound doctrine. But it is impossible to deny that the Christian Church was led to overrate greatly the importance of the doctrinal aspect of religion. Religion eventually became anti-religious in its zeal to extirpate heresy. Creed cannot be made to count for more than character without detriment to the inner life of religion " (p. 160).

"While institutional religion is the stable background, personal religion is the factor which makes for progress. Institutional religion can maintain itself for long through the sheer momentum of its former course ; it cannot maintain itself permanently if religion ceases to be vital in individuals. . . . Human culture is a developing whole, and religion as an element in that whole, must develop in order to live " (pp. 177, 179).

The following chapter (iv.) contains a definition of religion and a discussion of its relations with science, morality and art. Dr. Galloway accepts my definition of religion as the worship of higher beings from the sense of need, making certain additions to it ; his statement of the relation of religion to other human activities is excellent. His chapter (v.) on the development of religion seems to me less satisfactory ; for the reason that it is confined too much to the growth which takes place within a nation and its religion, and takes too little account of the cases where different nations with differing religions come in contact with each other. Religion does not fulfil itself within a single nation ; a nation in isolation must degenerate in religion as in other things. The growth of religion at the higher stage consists in movements of syncretism ; the name of the God may not alter, but his character expands and new ways are found of serving him. This is recognised by Dr. Galloway ; only I think not sufficiently. Judaism and Islam both held out against syncretism, and hence their growth has remained behind the promise of their earlier days.

So far I presume to criticise Dr. Galloway's great and comprehensive book. The second part of it in which the argument is offered that religion, *i.e.* the higher monotheistic religion to which the world's maturer thought has now come, is true and places us on a solid position in this world, I must leave to the judgment of philosophers. Dr. Galloway has not made this part of his task easy for himself. At every advance he summons us to face further problems, and leaves us after each discussion satisfied that it was called for and has received masterly treatment. The result that the testimony of religion about God and the world is true is reached through a discussion of the problem of knowledge, in which the knowledge arrived at in religion is shown to be of a different kind from scientific knowledge, reached by faith and deal-

ing not with outward facts but with values. The chapter on faith is one of the finest in the book, and is the keystone of the building. Dr. Galloway is heartily to be congratulated on the massive and many-sided demonstration he has given of the truth of religion.

ALLAN MENZIES.

A History of European Thought in the Nineteenth Century. By J. T. MERZ. Vol. iv. Edinburgh and London: Blackwood and Sons, 1914. Pp. xii, 825.

IT is a real pleasure to be able to congratulate Dr. Merz heartily on the completion of the great work of which the first volume was issued so long ago as 1904. In its vast scope Dr. Merz's book well justifies his adoption of the famous and splendid Platonic identification of the *συνοπτικός* with the philosopher which stands as the special motto at the opening of its concluding volume. It would be hard to find anywhere in contemporary literature any book which surpasses the *History of European Thought* in the accuracy and fulness of its "synoptic view" over an enormous field of immense intellectual development. Many a man might have made an honestly earned reputation by doing as much for one of the special departments of thought which the author's programme covers as he has done for many, if not all. Once more, as in dealing with the third volume of this masterly work, the present reviewer has to express his admiration at once for the extraordinary range of the author's knowledge and for the quiet sanity and freedom from intellectual bias with which he surveys the whole century's output in the three great countries of Western and Central Europe. There are few, if any, great works in reading which less correction requires to be made for the "personal equation" of the writer. Of course I do not mean to say that Dr. Merz's work has not its limitations and its marks of personal one-sided sympathies. Absolute freedom from all such defects would be hardly possible except to omniscience. I cannot deny that the exclusion on principle of all consideration of intellectual contributions made to the great body of European thought in the Scandinavian countries, and in Italy is such a limitation. Absolute omniscience dealing with Pessimism as a strain in nineteenth-century thinking would, no doubt, remember Leopardi as well as Schopenhauer. And in dealing with the great body of unsystematised ideas represented by literature in the narrower sense, omniscience, while it would not forget the significance of Goethe and Schiller and Carlyle would, I presume, have to take some account of Shelley and Tolstoy and Ibsen, to mention no other names. In strictness Dr. Merz's great work is rather a history of thought in

Great Britain, France and Germany than in Europe at large. And, to be perfectly candid, I must avow that in Dr. Merz's treatment the last-named country seems to me to get rather more than her due prominence in the story. One cannot complain that the influence of Goethe and Schiller on mankind should be treated of enthusiastically and with a certain amount of unnecessary repetition, and one is glad to see Herder and Schleiermacher come by their rights, but I cannot help thinking that the spiritual influence of Wordsworth or Shelley or Byron or even William Godwin deserves equally adequate consideration. Nor can I quite understand how, in a work which devotes some considerable space to the glorification of Wilhelm Wundt as an original genius, comparatively so little account should be taken of any British thinker since Spencer or any French thinker after Comte, except by the consideration that the marked Teutonisms of the author's literary style prove of themselves that his mind has taken the special impress of a German education. Each of us, to be sure, has his own *idola specus* and I do not mean to suggest that it is any reproach to Dr. Merz that, with all his striving after an impersonal point of view, he has not wholly escaped the common lot of mankind. I would merely hint to his readers that there is some need in studying even his pages to allow for the "personal equation". Thus I am inclined to think that, as far as the "unsystematised thought" embodied in our own literature goes, he decidedly overrates the influence of German writers in general and of Goethe in particular. I should be inclined to say that while our literature has been very deeply impressed by those of France and Italy, the influence of German literature and thought, except upon quite a small minority, has never been very marked. It was virtually non-existent before William Taylor, Carlyle and Coleridge made German poetry and philosophy the fashion, and, from all that I can gather, that particular fashion has long since been out of date except among the specialists of our University Chairs. It is certainly the fact, whatever may be the reason of it, that even knowledge of the German language is much less common among "educated" young men in this country than was the case as recently as twenty or twenty-five years ago. I should suppose that the change may be largely due to growing dissatisfaction with the methods and results of the "classical" German philosophy. When T. H. Green and his pupils were preaching the study of Kant and Hegel to "Englishmen of under five-and-twenty" as the one appointed way of salvation from a hopeless Agnosticism, it was natural that acquisition of the German language should come to be looked on as the "key" to higher spiritual knowledge; to-day the younger generation is at least sceptical about the Gospel of Absolute Idealism, and not disposed to think the privilege of reading Treitschke and Bernhardt worth the expenditure of energy in the acquisition of a difficult language. My allusion to Green

leads me to mention another point in which Dr. Merz, as it seems to me, rather exaggerates the dependence of English on German thought. Green is often spoken of as an "Hegelian," though the truth is that it is Kant rather than Hegel whose influence is prominent in his writings, and it is noteworthy that he seems to have been wholly indifferent to the dialectical method which the more genuine disciples of Hegel have always insisted on as the special feature of their master's philosophy. But a more potent, and perhaps a more beneficial, influence on Green's positive doctrine is that of Aristotle. All that is best in his Ethics might be said to be little more than Aristotelian doctrine expounded and developed by an old-fashioned Radical of the school of Bright and Cobden with special reference to the social problems of nineteenth-century England. On the strictly ethical side I doubt if Green's views would have been materially different supposing him to have known nothing of Kant and Hegel beyond their names. And when one turns to the least satisfactory part of his doctrine, the metaphysical, though one sees that as a matter of fact his theories about the "timeless self" have been formed under the influence of the Kantian conception of *Bewusstsein überhaupt*, they are really much more akin to the cryptic Aristotelian utterances about the "separable intellect," and might, in fact, have been reached, as very similar views were actually reached by some of the less orthodox of the schoolmen, directly by an attempt to interpret the *de Anima*. One might perhaps even venture the suggestion that as a metaphysician Green is neither a Kantian nor a Hegelian but just an Aristotelian of the "Alexandrian" type. At the same time, I admit that it was probably the reawakening of interest in Greek philosophy for which we have so largely to thank Hegel and some of his followers that led Green to concentrate his attention on Aristotle. It is significant that, as one would expect from the relative backwardness of Platonic studies in the Germany of Green's age, he seems to have taken little interest in Plato and wholly misunderstood him.

But I am wandering a little too far from my appointed task. To return to Dr. Merz. In a sense, this concluding volume may be said to be the product of an even vaster labour than those which have gone before it. For it deals with topics which have been prominent in the serious literature of three nations during a whole century, but have not, to the same extent as those treated of in volume iii., been made the subject of precise and exhaustive consideration in the philosophical schools. This is true even of the subjects dealt with in the first three chapters, "Beauty," "the Good," "the Spirit". Æsthetic, Ethics, Philosophy of Religion have, of course, all been made the subjects of set "courses" of lectures by famous philosophers, but even in Germany a great deal of the most important work on them has been done by men standing altogether outside the philosophic tradition and unencumbered

by the need of fitting their views into any metaphysical framework. I would call attention specially to the balanced and luminous account given in these chapters of the work of more than one eminent man who has received less than his due in those current histories of thought which confine themselves to the discussions of the academic system-makers. Thus the full treatment of Schleiermacher's ethical and religious theories, which is fully justified by their historical importance, is one excellent feature of the book: another is the study of the æsthetics and ethics of J. M. Guyau, an author whose real originality has hardly yet won due recognition in this country. And Dr. Merz deserves the highest praise for the skill with which he has succeeded in exhibiting the real significance of Nietzsche without straying either into hyperbolic laudation or unintelligent depreciation. To write of Nietzsche with perfect sanity is, in my opinion, no easy task and Dr. Merz has achieved it to perfection. Yet, and this is another illustration of what I mean by Dr. Merz's failure to maintain a perfect sense of proportion in his estimate of the achievements of the three nations, Ruskin's widespread influence hardly receives due recognition by the devotion of a page or two, largely made up of quotations from Dr. Bosanquet, to *Modern Painters*, and a few scattered references in other places. His social theories, for the sake of the historical part they have played in moulding British ideas for the last forty years, surely deserved as careful and methodical examination as that which Dr. Merz has given to more than one German not exactly of the first order of genius. Similarly I am inclined to think that Newman is not altogether so insignificant a figure in the history of religious thought by comparison with Ritschl as Dr. Merz's treatment of the two men might suggest. (Kierkegaard and Tolstoy are both, of course, excluded by the plan of the work; yet a really comprehensive study of religious thought in the nineteenth century would surely have to take very serious account of both men.)

The social and economic thought of the century forms the subject of the next chapter, and the book closes with two more which discuss respectively the "Unity of Thought" and the "Rationale of Philosophical Thought". In the two first of those chapters the outstanding feature is naturally the elaborate and highly sympathetic study of Comte which is, to my own mind, one of the very best pieces of work in Dr. Merz's whole four volumes. If I might single out a special point as particularly admirable it would be the comparison of Comte's philosophical ideal with those of Hegel on the one side and Herbert Spencer on the other. In his general attitude to the problems of philosophy and the possibility of their systematic solution Dr. Merz remains in all essentials faithful to his description of himself in the third volume as in the main following in the footsteps of Lotze, though it rather surprises me, as I have already hinted, to find him elevating Wundt to a level

of almost equal importance. I can only suppose that he has succeeded in finding in Wundt's voluminous writings a revelation which has been denied to me, to whom this author has always seemed a rather dull eclectic. I wonder at any rate how far Wundt would accept Dr. Merz's last work on the whole philosophic problem as one to be solved, if at all, by the interpretation of the world in the light of the idea of personality, or the Theism which inspires his final sentence. "Not only in the far away consummation of things but in human life as it is—

Love alone leads us
Upward and on."

However that may be, I should like to end this notice with a simple record of my deep feeling that the *History of European Thought in the Nineteenth Century*, if it does not wholly fulfil, as work of mortal man hardly could do, the whole promise of its title, is the noble achievement of a noble task and will remain a *κτῆμα ἐς αἰὲν* for all students of the development of thought through one of its most important eras.

A. E. TAYLOR.

Is Conscience an Emotion? Three Lectures on Recent Ethical Theories. By HASTINGS RASHDALL, D.Litt., D.C.L., LL.D., Fellow of the British Academy. Houghton Mifflin Co. Boston and New York, 1914. Pp. xi, 200.

THIS little volume contains the "Raymond F. West Memorial Lectures on Immortality, Human Conduct, and Human Destiny," delivered at the Leland Stanford Junior University in October, 1913.

A short course such as this is attended by certain peculiar advantages. It challenges the lecturer to make clear to himself the main issues of his question, and his main ways of meeting them; to disentangle from the mass of questions which interest him, and which call for attention, those which must be faced as important. But in philosophy especially it has great disadvantages; for you have not only to see clearly yourself, but to help your audience to see. And this involves a great amount of preparatory work, for which there is not time.

This admirable volume testifies to Dr. Rashdall's great success in his task. The problem he chose for discussion concerns the character of moral judgments; whether they belong primarily to Reason, or to Emotion. The first lecture states the problem and the main consequences of answering in this or that way; in the second lecture the views of Westermarck and McDougall, and in the third those of James, are discussed. Perhaps the most interesting point is Dr. Rashdall's reply to Dr. McDougall.

The question stated at the outset is, "What is the real character and meaning of the mental act which takes place when we call this act right, that one wrong?" (2-3). The answer to this question turns on the characteristics of the moral judgment itself. The fundamental thing about the moral judgment is its objectivity, which is shown in our demand that it should be impartial, and consistent with all other moral judgments. This objectivity is seen in the very form judgments take. The savage does not merely say, "This is prescribed by the clan," nor does the developed man say merely, "I approve of this"; the judgment takes the form, "This is right" (74-76). Thus, according to Dr. Rashdall, we have here just the same difference between subjectivity and objectivity as we have in the difference between "I agree with this" and "This is true"; and precisely the same intellectual processes are involved in passing from the one to the other.

From these characteristics it is inferred that a moral judgment can never spring from a mere emotion, which is purely subjective, and can never give rise to anything objective. The mere fact that I have a particular emotion in connexion with a certain act does not make any difference to the kind of emotion you ought to have; nor indeed does it constitute any claim on me to have the same emotion on another occasion, or to have similar emotions in relation to actions of a similar nature. Again, no mere emotion can be regarded as higher or lower than another; and thus, if we are to remain within the emotions, we can never speak of higher pleasures, or of a higher or lower self.

It follows then that the mere emotions are incapable of giving rise to the peculiar characteristics of the moral judgment, which therefore must rest on something else. This must necessarily be that faculty which does give rise to judgments of objectivity, impartiality and consistency, *viz.*, the intellectual or rational part of our nature, "the faculty of apprehending *a priori* or immediately those axiomatic truths upon which in the last resort all knowledge depends . . . a distinguishable activity of the same rational self or mind or soul . . . to which is due our judgment that two and two make four, and that two straight lines cannot enclose a space" (134-135).

This theory has been the subject of attack by Dr. McDougall, in his *Social Psychology*, and Dr. Rashdall's endeavour has been to show that he does not occupy the positions which Dr. McDougall claims to have rendered untenable. Dr. Rashdall is classed with those who "place moral conduct in a separate category, apart from all other forms of behaviour, and attribute it to some special faculty peculiar to human beings . . . which seems to be conceived as having been implanted in the human mind by a special act of the Creator, rather than as being the product of the slow processes of evolution" (McD., 378). It must be admitted, I think, that this does not represent Dr. Rashdall's position. Reason for him is not

a special faculty out of all relation to emotion and desire. Nor is it independent of evolution. But however closely connected with evolution our reason may be, it exists in the developed consciousness in an entirely different form from the form in which it existed in the rudimentary stage. And the validity of its utterances is intrinsic to its developed form. It is true that the ethical judgment is in most cases, though not always, accompanied by a certain amount of emotion. In some cases, indeed, the judgment on a particular action is determined by the emotion excited by the act. But in these cases, Dr. Rashdall insists, the judgment does not rest on the mere emotion, but on the judgment, "That the emotion has value"—something entirely different (146 ff). "... it is a *thought* satisfactoriness rather than a felt satisfactoriness, even when what is pronounced satisfactory is most clearly and obviously some feeling or emotion" (173).

But while Dr. McDougall appears to regard Dr. Rashdall as having a more extreme position than he really holds, Dr. Rashdall appears to do the same as regards Dr. McDougall's position. Dr. McDougall is represented as answering in the affirmative the question as to whether moral approbation can be analysed into emotions (R. 61), with the implication that he would answer "No" to the question, "Is there anything in the idea of right and wrong which is not mere emotion?" (R. 67). I do not think that this does justice to Dr. McDougall's position. An emotional disposition is only one aspect of Dr. McDougall's fundamental element, the instinct. It is true that in Dr. McDougall's treatment of human action he lays great emphasis on "emotion". A "sentiment" is defined as "an organised system of emotional dispositions centred about the idea of some object" (McD., 160); and the growth of morality is attributed fundamentally to the sentiments; but it would be wrong to ignore the part played by intellectual processes throughout this development. Dr. McDougall speaks of our judgments of value and merit as being "rooted in our sentiments" (160), our judgments of moral value depending on our abstract sentiments. Abstract sentiments (162) are thus the basis of moral principles. "It is through the development of such abstract sentiments that the individual's moral development and the refinement of his moral judgment . . . is effected, and that his moral principles are formed" (219). It is clear that this cannot be adequately described as meaning that our moral judgments are reduced to "mere emotion". For the development of the abstract sentiments involves "the intellectual process of discriminating and naming the abstract qualities of character and conduct." (219)—which on examination, I think, will be found to involve all that Dr. Rashdall contends for, though it is possible that Dr. McDougall might not admit it all—influenced by our development as members of society: whereby our approval, on the lower plane, is dependent on what is demanded by our fellows, but on the higher plane, is con-

ditioned by what we demand of ourselves in virtue of the ideal of character that we have formed.

It is clear that there is room on Dr. McDougall's principles for any amount of scope as to the way in which our intellectual processes shall react on our emotions and sentiments. It is no part of his object to discuss in detail the precise intellectual principles on which men do proceed in elaborating such abstract concepts as justice, virtue, etc. It is sufficient for him as psychologist to chronicle the fact that we do come to have such concepts, and to have sentiments relating to them.

It is true that Dr. McDougall speaks of "the consequences of action upon human welfare" as the only true and ultimate criterion of moral judgments (382); but it is clear that "welfare" is not to be measured by any standard which does not involve the satisfaction of man's whole nature. Nor need the phrase "human welfare" necessarily involve the subjectivity of moral judgments; for it is certainly possible that man's intellectual processes should result in genuine knowledge of reality, and also that the abstract sentiments should be determined largely by these processes.

To do justice to all the facts, it seems only necessary on the one hand to supplement Dr. McDougall's account by emphasising the part played by intellectual processes in our abstract sentiments and in our accepting something as our duty rather than as merely enjoined by some external authority; and on the other hand to apply to Dr. Rashdall's account of moral axioms a criticism similar to that directed on the axioms of Mathematics, in such a way as to bring out the part played by the fundamental emotions and the development of society. The former is the real point of Dr. Rashdall's criticism of Dr. McDougall, the latter that of Dr. McDougall's criticism of Dr. Rashdall; which would in each case have been more effective had it not been associated with any misunderstanding of the position criticised. Indeed, however Dr. Rashdall and Dr. McDougall may differ, their essential views do not seem to me to be in any way fundamentally opposed. It is not a fair account of either to say that for Dr. McDougall reason pronounces certain things to be good or valuable because our emotional nature approves, whereas for Dr. Rashdall our emotional nature approves because reason has pronounced them good, however suggestive this statement might be in indicating their differences of attitude. For it is not possible for Dr. Rashdall to exclude all reference to the emotions in his account of what reason pronounces to be good; nor would Dr. McDougall desire to exclude all reference to reason in his account of the emotions. And it seems possible to combine what each is chiefly contending for, without any difficulty; though it is probable that neither would agree with the result. The result would be somewhat as follows.

Before any proposition can be accepted by us as true it must appear self-evident. But this self-evidence is, in every case, the

result of an examination, by intellectual processes, of an extended field of material, and depends on the characteristics of this material. In the same way, the acceptance of an action as one which ought to be done, if it is to be fully justified, involves at once an acceptance of the act as a duty, and the perception of it as following on a self-evident judgment as to what is a duty. The material which gives rise to self-evident judgments about duties is: (*a*) feelings of approval and disapproval in regard to certain actions, (*b*) the characteristics of these actions. This material must be sifted by an intellectual process until we discover (i.) the type of person whose feeling is to be accepted as right, (ii.) the character of those actions which make such a person feel as he does. This sifting will issue in a system of consistent judgments regarding duties, expressing the characteristics of actions which every one would be compelled to approve, so far as he was influenced entirely by relevant considerations. And it seems possible to prove that such a system would be in harmony with our deepest thoughts about the Universe; inasmuch as a precisely analogous account would be given of the way in which both intellectual and æsthetic judgments arise. If it is possible to make objective judgments regarding the Comic, these would be arrived at in the same way. Whether the Good, the Beautiful, and the True are ultimate, or the only ultimate categories, would depend partly on the specific nature of the feelings aroused, and partly on the characteristics of the material arousing these feelings; and the only method of deciding the claims of any other aspirants to the title of ultimate categories would be that of endeavouring to build up a system of consistent judgments on the material provided.

L. J. RUSSELL.

VII.—NEW BOOKS.

A Psychological Study of Religion: Its Origin, Function, and Future.

By JAMES H. LEUBA. New York: The Macmillan Co., 1912. Pp. xiv, 371.

PROF. LEUBA ranks with James and Starbuck as one of the most eminent of American psychologists who for the past twenty years have given themselves to ardent and fruitful study of the religious mind. He and Starbuck have led what is called the Stanley Hall group, and their work has greatly stimulated men like Vorbrodt in Germany and Flournoy in France. One merit of the volume named above is that it gathers up the main results of Prof. Leuba's earlier publications and carries on the process of interpreting their final import. I regret the lateness of this review, and am in part responsible for it.

Prof. Leuba's definition of religion is unpromising. He thinks of it as a distinctively biological phenomenon, as contributing to breed the best kind of human life measured by a social standard. "Religion," he writes, "should be looked upon as a functional part of life, as that mode of behaviour in the struggle for life in which use is made of powers characterised here as psychic, superhuman, and usually personal." As he puts it in a later passage, "the reason for the existence of religion is not the objective truth of its conceptions, but its biological value". Clearly his notion of what religion essentially is will be drawn from its low and least developed forms. In a fresh and striking treatment of magic and religion he describes their proper difference as consisting in this, that magic aims at coercing gods to do what is wanted, whereas religion is anthropopathic, that is, it operates by way of appeal to the god's intelligence or heart. Primitive peoples, it is held, nearly always have in their minds not so much the idea of a personal divinity, as of power or force, which means that magic here predominates over religion. There is not one source of the ideas of gods: gods arose out of several different notions of supernatural beings, independent in origin, and characterised by attributes which vary according to their sources. These varied ideas of deity interacted on each other, one gaining ascendancy here, another there. Of these ideas, moreover, "the one arising from curiosity about the making of things is necessarily a relatively lofty conception," and Prof. Leuba agrees with the majority of recent anthropologists in holding that "there exists among the most primitive people now living the notion of a Great God high above all others, to whom is usually assigned the function of a creator". But he rejects the inference of Andrew Lang, that these tribes have deteriorated from what was the earliest state of mankind. To become a god, an invisible being must possess genuine importance for the struggle of life; and it is interesting to find the following laid down as a pre-requisite of godhead—"benevolence toward men must enter into his composition". Attention should be called to a good chapter on "The Emotions in Religious Life". Robertson Smith is held to have been

nearly right in holding that not fear of unknown powers but loving reverence for known gods is the beginning of religion, Leuba only adding that Smith is describing positive religion as distinguished from *negative*, which covers man's attitude to essentially bad spirits.

We are now arrived at the close of Part II., and from this point onward the value of the argument much declines. There is an excellent chapter, indeed, on quite modern forms of piety, such as Mind-Cure, Christian Science, New Thought. And the book closes with a sifted list of notable definitions of religion from the three points of view of intellectualism, affectivism and voluntarism, with brief comments mostly by way of explanation. This is most useful. But in the main Parts III. and IV. go to prove that real eminence in psychology need not imply special gifts for philosophy or theology. In a long chapter headed "Theology and Psychology" the writer argues that psychology by itself covers the whole field of the religious interest and will answer all the questions we need to raise. To do him justice, he makes the same assumption as to morality. "I shall venture the statement," he says, "that the objective character and the obligatoriness of moral obligation is a problem that falls within the fields of social and individual psychology." Surely it is obvious that psychology has no bearing on the truth of the ideas it reports. A convenient fiction is as real a datum for it as a valid judgment. In fact, the writer who starts with Prof. Leuba's assumptions cannot hope to understand the importance of the question of *truth* for the normal religious man, who puts aside the notion that beliefs can be treated as mere biological values as little better than a bad joke. Once persuade the believer that his belief is false, or that its validity does not matter, and it ceases to be useful to him—though doubtless it might still be so to the bystander or the magistrate. The curious thing is that to Prof. Leuba it seems self-evident that theology, to be serious, must consent to be a branch of psychology. But wherever genuine religion has mastered men, it is because they have felt themselves under the constraint of some *trans-subjective* Power, that laid unconditional obligations on their life and claimed the first place in thought and will. Let us place next to one another these two statements, the first by Prof. Leuba, the second by the Psalmist as rendered by Martin Luther: "God is not known, He is not understood; He is used," and "Wenn ich nur Dich habe, so frago ich nichts nach Himmel und Erde". The mere juxtaposition shows there are more things in any higher religion, be it Judaism or Christianity, than are dreamt of in biological psychology. Religion is what it is because it declines to be taken as means to an end. Every religious man is quite sure of this, and to try to convince him that what he estimates as an end in itself is only a complex of utilities is the equivalent of asking him to give up religion altogether. There can be no impartial study of religion any more than there can be a purely disinterested study of morality. We can only know what religion is by reflecting on the shape it takes in ourselves. We really stand outside the religious experience so long as we fail to see that it is determined and even constituted by the thought of revelation. Revelation is something we do not make; it is a datum for the soul, it elains us, it bows us down before itself in faith and reverence. The logical structure of religious consciousness is unintelligible till this element of its thought is recognised; and failure to do so is in some degree responsible for Prof. Leuba's inability to give a convincing explanation even of the difference of magic and religion. He understands this as a difference of behaviour; but that is to fix attention rather on their forms of expression than on the real nature of their meaning.

One has the impression, while perusing works of the anthropological

school, that their discussions of the origin of religion, if not indeed altogether wide of the mark, are at all events oblivious of the problems that really count. What we chiefly want to know is why religion is born in A, B, and C, our contemporaries and friends, not simply why it came into existence long ago. Certain writers, ignoring this, fasten the religious consciousness to experiences distinctive of the earliest periods of human culture—dreams, visions, the sight of sleep or death. It is assumed that once religion began, it could not help persisting for a while, till the initial animistic impulse had spent itself. Manifestly this gives us little or no help in discovering why men are religious now.

H. R. MACKINTOSH.

Proceedings of the Aristotelian Society. 1913-14. Pp. 438.

This number of the Aristotelian Society's *Proceedings* is considerably larger than usual owing to the presence of a 'discussion' between Drs. Schiller and Wolf on the "Value of Logic," and a 'symposium' in which Dr. Moore and Prof. Stout took part on the "Status of Sense-Data". (What by the way is the distinction between a discussion and a symposium in this connexion? Is it that in the former the participants are rude to each other and that in the latter they are polite to each other? There is some evidence for this view in the volume before us.)

The symposium, Prof. Dawes Hicks' paper on "Appearance and Real Existence," and the translation of Lossky's article on "Intuitionism" have a pretty close connexion in their subject matter. Prof. Hicks begins with an historical discussion as to the meanings which appearance has had in important philosophical systems. He is concerned to show for his own part that appearances are 'not objects but ways in which objects are presented'. He says that we are immediately aware not of sense-data but of things, and the grounds that he offers are (a) that we need attention and abstraction to know that we are aware of sense-data and (b) that our immediate objects are complexes and not separate sense-data. The latter argument seems to me quite irrelevant; the former rests on the view that if we are immediately aware of anything we must also be immediately aware that we are aware of it. And this seems very doubtful. Either our attention creates the sense-data of which Prof. Hicks admits that we find ourselves to be aware or not. If not the sense-data are objects all along whether we know it or not. In such examples as the stick in water I fail to see how we are helped by the explanation: The stick has a bent appearance = the bent appearance is a way in which a straight stick surrounded by water is presented to us. For I do not see that this is (a) incompatible with the bent appearance being an object to us, nor (b) what precisely is meant by 'way' here. If 'way' = 'means' then the only means by which the appearance presents the stick is by being an object and being believed to be connected in some definite way with the stick. And if 'way' = a particular kind of mental act whose object is the straight stick or some part or quality of it *what* precisely is bent? Surely not a mental act.

Lossky's article is very similar to the one which he contributed to the volume on Logic in the *Encyclopædia of the Philosophical Sciences*. It begins by a sound and sensible recognition of all the distinctions by confusing which most idealisms render themselves plausible. But it seems to me to fail to recognise the many difficulties which confront naïve realism even after these confusions are removed. One remarkable statement is that very likely secondary qualities are qualities of parts of our nervous systems. I find it difficult to believe that when I see a green patch of colour some part of my nervous system must be green, and

obviously the whole suggestion needs a great deal more elaboration before it begins to be plausible. According to Lossky all propositions are in themselves necessary, and the relation between subject and predicate is that of ground and consequent. What we call a necessary proposition is one in which the predicate is seen to follow necessarily from some quality already recognised to be present in the subject; in what we call contingent propositions the predicate is equally necessitated by *something* in the subject, but that something has not been explicitly recognised by us. It is obvious that such a view can only be maintained if we take causal laws to be laws of necessary connexion, hold that all qualities are connected by such laws with each other, and are further prepared to admit that what we take as one subject may have to be supplemented by something which we took to be other subjects. For Lossky all genuine judgments must be true; error arises through the subjective play of fancy adding to what is before the mind. But this subjective play will not lead to error unless we erroneously suppose it to be absent or that a part of the object really supplied by us is independent of us; and this seems to involve genuine false judgements.

The symposium is a very valuable piece of work. Dr. Moore elaborates with his usual clearness the relations which he believes sense-data to have to the mind, and states the difficulties in supposing that they either are physical objects or parts of them, and of validly inferring the existence and qualities of physical objects from them. Prof. Stout scouts the suggestion that our sense-data could exist when we are unaware of them, but holds that they are never given without a reference to a physical source in general. The progress of knowledge of the physical world consists in tying down this reference more and more, and seeing to what part of the total physical world (*e.g.* physical source, medium, or our own nervous system) a particular sense-datum is to be referred. I still find an epistemological difficulty in his position. Sense-data and their mutual relations are *given* in complexes related by these relations, and the relations and *both* the terms are present as particulars to the mind and can be analysed out of the complexes. But on his view of reference we are given a particular sense-datum and a relation with one end in it and the other in the universal 'some physical object or other'. Such a complex seems hardly capable of being given as a whole, and, if it be, it is difficult to see how we are to have any logical guarantee of our further determination of the universal 'some physical object,' in view of the fact that we never directly experience any particular physical object whatever. One minor point that remains is that it is difficult to see how Prof. Stout can be so sure at the same time of the two propositions (*a*) the sense-data of which I am aware never exist when I am unaware of them and (*b*) physical objects (of which I am never directly aware) are composed of more of the same kind as my sense-data.

There is an interesting article by Prof. Alexander on "Freedom". This he defines as enjoyed determination. *E.g.* we say that we are free when we feel a state of mind as determining another or as determining a contemplated physical event, such as a bodily change. And we say that we are unfree when a contemplated physical event is seen to determine a state of mind (and also apparently when a state of mind, however actually determined, is not felt as determined by some enjoyed state). Freedom increases as the determinant is more nearly identical with the whole felt self; but such determination is not of the essence of freedom. There are some very excellent remarks on the relation of causation to prediction; they seem to me to come to the true and important statement that although we may be able to predict what will be the parts and their relation in a certain complex it does not follow that we shall be able

to predict all or indeed its most interesting qualities. Prof. Alexander aptly quotes Dr. Moore's principle of organic unities in Ethics here. There are also some very difficult dicta about the memory of a past state of mind. Even with the help of a supplementary note I cannot profess to be clear enough as to Prof. Alexander's meaning either to summarise or to criticise them.¹

Mr. C. Delisle Burns contributes a very valuable paper on Ockham's Theory of Universals and argues that Ockham's controversy with the Scotists shows that we can dispense neither with universals nor with particulars.

I have no space left to do more than mention the remaining articles. These are "On Feeling" by Prof. Smith; on "Philosophy as the Co-ordination of Science" by Mr. H. S. Shelton; on the "New Encyclopædia of the Philosophical Sciences" by Prof. Brough; on the "Psychology of Dissociated Personality" by Dr. W. L. McKenzie; on the "Notion of a Common Good" by Miss Shields; on "The Treatment of History by Philosophers" by Mr. Morrison; and on the "Principle of Relativity" by Dr. Wilson Carr, who holds that it all brings grist to Bergson's mill.

C. D. BROAD.

Introduction to the Science of Ethics. By THEODORE DE LAGUNA. New York: The Macmillan Co., 1914. Pp. xi, 414.

Prof. De Laguna has followed a method of his own in arranging the contents of his text-book. In Part I. he discusses briefly the character, methods and range of a science of Ethics and (more fully) the problem of moral freedom as necessarily introductory to further detailed study of Ethical problems. The remainder of the First Part is then devoted to an account of the standards by which conduct has actually been judged by civilised and uncivilised men, and the whole of Part II. to an historical account of the Ethical doctrines of the chief classical and modern thinkers. His own views are then expounded systematically in the third and last Part.

The author's style is fresh and agreeable; he illustrates his positions happily from cases known to have arisen in actual fact, and there is much to be said for his method of treating debated issues in dialectical fashion. This return to something like the dialogue as against the sophistical epideixis, in which the weak points of one side are almost certain to be concealed, seems to me likely to be of real value to the student. I should call the first two parts of the book on the whole both useful and entertaining and I believe they might be prescribed with advantage to a class of students first entering on the study of Ethics. But I should not like to go bail for all Mr. De Laguna's assertions about fact. It is a hazardous thing to talk of "*Socrates* and Francis Bacon" as typical empiricists, or to credit Plato with a "boundless contempt for the mass of mankind,"—a judgment probably inspired by popular misconceptions about the politics of Plato's family. And it is more than hazardous, it is appallingly false to say that Plato tells the philosopher to put himself "in a sphere where courage, temperance, and even justice have no place". One wonders if Mr. De Laguna looked up the description of the philosophic character in *Republic* II., before writing this amazing sentence. It is significant that in the whole account of

¹ Since writing this I have had some conversation with Prof. Alexander on this subject. I think that I now understand his view better; but I am not certain, for the better I seem to understand it the less plausible it seems to become. But I cannot do justice to him here.

Platonic Ethics no use seems to have been made of the *Philebus* or *Laws* or even of any part of the *Republic* except the fourth book, and that the actual texts employed, chiefly passages from the *Phaedo*, have been curiously misunderstood. The account of modern theories seems to me on a higher level and often quite excellent, though I think it unfortunate that Butler, whose importance the author clearly recognises, should have been left out, apparently from a difficulty in fitting him into a ready-made classificatory scheme. I would particularly commend as useful in giving a young student some idea of what considerations are and what are not relevant to an ethical issue the concluding chapter on the "hedonistic controversy," though I could not myself subscribe to all its conclusions. My objection to Hedonism is not Dr. Laguna's, that the theory is unproved and unprovable, but that it seems to me so patently false. For example, I am sure that I judge certain experiences of aesthetic contemplation to be among the best of my own experiences, and that I should regard such experiences as cheaply purchased by a great deal of painful or tedious existence. Yet I am equally certain that these experiences are not distinguished from others by any particular intensity of pleasurable-ness. In fact I think they are sometimes accompanied by a sense of strain which is the reverse of pleasant. Hence it cannot be because they are so very pleasant that I think them so good. And I am equally sure that I should think it a bad thing to gratify a mob by condemning an innocent man even if I knew that the act would add enormously to the amount of pleasure in existence. If my judgment in *any* such case is a right one, this single fact disproves Hedonism. On the other side, I wish the writers of our text-books would make it clearer that what is morally objectionable in practice is not the mere *seeking* of pleasant experiences solely on the ground that they are pleasant,—this is often innocent and sometimes a duty—but *living* for pleasure.

The third part of the book, in which the author is developing his own views, seems to me more concerned with secondary than with fundamental questions. He has much to say which will be profitable to a young learner about the "usefulness" of "morality" to society and to the individual, but he never fairly tells us exactly what this "morality" of which we hear so much is, or what is the fundamental principle exhibited in it. Indeed he often seems to mean by "morality" no more than what happens to be the current practice of a given community at a given time. Whether there is any standard by which we can judge whether this current practice itself needs to be improved and in what respects we are never clearly told. We are told indeed that the verdict of time will show, but this is surely a very shallow answer if left to stand alone. Mr. De Laguna himself gives as a sample of the problems which only time can decide the question whether the German Emperor is a great (I suppose he means morally great) man. Surely it is manifest that there might be a divergence of opinion to the end of time between the Germans and their present enemies on the point. You can only justify the appeal to a supposedly unanimous verdict of future ages if you make the double postulate that the judgment of the future will be a unanimous one and that it will be a true one, and I cannot see that the author has given any reason for holding either opinion. If Mr. De Laguna were less hesitating in his recognition of the objectivity of moral obligations, he would, I think, hardly be forced to so lame a conclusion.

A. E. T.

The Philosophy of William James. By HOWARD V. KNOX. London: Constable & Co., 1914. 1s.

In this little book Captain Knox, an enthusiastic disciple of William James, presents the main outlines of his master's teaching. He has "aimed largely at effective selection . . . with a minimum of explanatory comment". The selection of extracts and the stringing of them together have been carried out with great skill and judgment, the minimum of comment being extremely pungent, pithy and well-directed. In this way the author has produced a guide-book to the field of James's thought which will be useful to all who desire to delve in that fruitful field or to appreciate in some degree the achievement of this great man.

But the book is more than a skilfully compiled guide-book for the general reader. It claims the attention of serious students of philosophy; for it demonstrates—and indeed this demonstration was the main purpose of its author—the fact that the important and profound philosophical doctrines, set forth with so much brilliancy and persuasiveness in the writings of James's later years, are in the main elaborations and developments of views implied, and, in large part, actually stated in his first and largest and greatest book, *The Principles of Psychology*. This demonstration was needed; for it is too much the fashion among our philosophers to proclaim a cheerful and unabashed ignorance of psychology, while they make use of sweeping and dogmatic psychological assertions. In accordance with this tendency some of James's critics seem to have neglected the *Principles* as a work produced when its author was still 'a mere psychologist'; regarding James as a writer, who, after practising for some years the shady profession of the psychologist, turned over a new leaf and in his later years aspired to become a philosopher. Indeed James himself lent some colour to the view that the two periods of his activity were discontinuous; for sometimes in his playful way he spoke of the time when he had been a psychologist; and he never revised his *Principles*. If he could have lived to revise the *Principles* a quarter of a century after its first appearance, the issue would have been of extraordinary interest and value. Captain Knox's little book is a partial substitute for such a revised edition; for he clearly shows, not only that James's philosophical views grow out of suggestions embodied in the *Principles*, but also that his philosophy consisted in the application of his psychology in the fields of logic and epistemology; that in fact his life work was essentially the reformation of psychology and its restoration thereby to its proper position among the philosophical disciplines, a position which it had lost through its own errors, especially through its short-sighted capitulation to the mechanistic claims and tendencies of nineteenth century science. As the author of this book so clearly shows, James's reform of psychology consisted in breaking away from the narrow tradition, which confined it to the description of subjective states or sensations or feelings, and in bringing it back to the study of mental processes regarded as functions of organisms by means of which they strive for life and a better life in an environment which, with more or less success, they shape to their ends; in short, in making of it the positive science of the behaviour of organisms, rather than a science of subjective states. Now, as soon as psychology adopts this view of its functions, it can no longer remain indifferent to questions of truth and error; but, becoming vitally interested in them, strives towards such a reform of logic and of the theory of knowledge as Pragmatism claims to have effected.

Captain Knox has fully proved his main thesis, the continuity of the development of James's philosophy out of his psychology; but his

book accents, perhaps unduly, the consistency of James's later with his earlier views. No mention is made of the several important points in which James's later views were incompatible with those expressed in his *Principles*; of which the most striking, perhaps, is the implied recession from the theory of the material conditions of memory—too dogmatically presented in the earlier work. But in this the author is justified, no doubt, by the narrowness of the space prescribed for the treatment of so great a topic as the thought of William James.

W. McD.

Interpretations and Forecasts: A Study of Survivals and Tendencies in Contemporary Society. By VICTOR BRANFORD, M.A. London: Duckworth & Co., 1914.

Under this somewhat formidable title, Mr. Branford has collected a number of addresses originally delivered to Women's Clubs, University Classes, Working Men's Societies, Home Reading Unions and divers other like and unlike associations. Naturally the papers are very different in value, though their author's position as a disciple of the Geddes-Le Play school of Sociology gives them some approach to unity of matter and treatment.

Mr. Branford has a pleasant style, admirably adapted to addresses of this kind, but occasionally marred by such 'modernisms' as (the use, for example,) of 'urge' as a noun substantive. But the titles of the addresses are apt to be somewhat misleading. "The Citizen as Psychologist," for instance, turns out to be a glorification of the mission of Woman,—doubtless sound in the main, but rather inclined to fanciful idealisations and generalisations,—and of the City's possibilities and actualities as a focus of social life.

The most striking characteristic of the whole work is, indeed, a very uncontrolled symbolic interpretation of all kinds of facts, tendencies, movements, modern and mediæval. The most interesting part of the book, to my mind, is a study of the possibilities of occupational education, in a chapter entitled "The Present as a Transition": while the chapter on "The Mediæval Citizen," and a few pages on the mediæval University are instructive as showing in a highly idealised picture, the destiny of city development in the minds of members of Mr. Branford's school. That the possibilities of civic life in future social organisation cannot easily be overrated, I agree: but I am inclined to think that Mr. Branford surmounts the difficulty.

J. W. W.

Ontology, or The Theory of Being, An Introduction to General Metaphysics. By P. COFFEY, Ph.D. London: Longmans, Green & Co., 1914. Pp. xii, 439.

Dr. Coffey's volume, which is intended to be a sequel to his work on Logic and to be further completed by a third treatise on the Theory of Knowledge, certainly, as he says in his Preface, fills a gap in English philosophical literature. It is not altogether to our credit that hitherto there has not been a single modern work in our language on Metaphysics as understood by the great schoolmen, with the natural consequence that English writers who have not been brought up to the Scholastic tradition have usually exhibited a ludicrous want of knowledge when they have felt themselves called upon to make pronouncements about the philosophical thought of the great mediæval doctors. Dr. Coffey's treatise should prove valuable to many readers outside the circle of students

in Roman Catholic institutions for whose use it is primarily destined. Without being too much taken up with matters of secondary importance, it is full enough to meet all the purposes for which a work on Scholastic Metaphysics is likely to be in demand by any but a very few specialists. Dr. Coffey brings to the exposition of his subject a lucid and forcible style, and is frequently happy in throwing Scholastic doctrine into clearer relief by apposite criticism of the rival theories of more recent times. I am however a little surprised that he should have fallen into the mistake of classing Nietzsche with Schopenhauer as a typical Pessimist.

A. E. T.

Essays on the Life and Work of Newton. By AUGUSTUS DE MORGAN. Edited with Notes and Appendices by P. E. Jourdain. Chicago and London: The Open Court Publishing Company, 1914. Pp. xiii, 198.

A welcome reprint of the more important of de Morgan's writings on Newton. To praise these essays either for the vigour and scholarship of their style or the noble spirit of impartiality which they display (a virtue all the more admirable since they appeared at a time when British mathematicians and men of science still appear to have thought it a positive duty of patriotism to admit no shadow of a fault or defect in Newton and no merit at all in any of the contemporaries with whom he had differences), is, of course, superfluous. The essays selected are the biography supplied by de Morgan to the "Cabinet Portrait Gallery of British Worthies," the "Short Account of Some Recent Discoveries Relative to the Controversy on the Invention of Fluxion," published in 1852 in the *Companion to the British Almanac of Useful Knowledge* for that year, and the article on Sir David Brewster's *Memoirs of Newton* contributed by de Morgan to the *North British Review* for August, 1855. Mr. Jourdain's name is a more than sufficient guarantee for the industry and accuracy of the editorial notes. His editorial appendix to the second essay which forms an elaborate bibliography of the papers written by both Newton and Leibniz while they were developing their respective calculuses is likely to be found of particular usefulness. The publishers deserve credit for the excellent portrait of Newton which forms the frontispiece.

A. E. T.

A History of Japanese Mathematics. By SMITH and MIKAMI. Open Court Publishing Company. Pp. v, 288.

The authors of this book give an account of Japanese mathematics from the earliest period till it merges into international mathematics through the opening up of Japan to Western science. The work is admirably illustrated, and we are given examples to enable us to understand the use of the *sangi* or computing rods, and the *soroban*, a kind of abacus. The use of algebra seems to have been introduced into Japan from China, the unknown quantity being called the 'celestial element'. But algebra received a fairly high development in Japan after it had once been introduced. The greatest of Japanese mathematicians seems to have been Seki Kōwa, who certainly discovered determinants and perhaps the calculus. The independence of the latter discovery is doubtful; it is uncertain whether the 'Circle Principle' is due to Seki or to Takebe, and it is moreover doubtful whether the first notion of the method may not be due to the Jesuit Jartoux, who corresponded with Leibniz. In any case the

Circle Principle was never completely generalised into a definite calculus, and therefore we can hardly allow to the Japanese the same credit as to Newton and Leibnitz.

C. D. B.

Naturalism and Agnosticism. The Gifford Lectures delivered before the University of Aberdeen in the years 1896-1898. By JAMES WARD. Fourth Edition. London: A. & C. Black, 1915. Pp. xvi, 623.

Prof. Ward takes advantage of this fourth edition of *Naturalism and Agnosticism* to make numerous small emendations and to add a number of explanatory notes. In order to get the whole more easily into one volume, the detailed table of contents has been omitted. In his preface Prof. Ward points out, that, as he has now, in *The Realm of Ends*, tried to meet the wish that he would discuss the relation of God as the Supreme Mind to finite minds, a better title for the present course would perhaps have been *The Realm of Nature or Naturalism and Spiritualism*.

Les Philosophes Belges. Tome IX. Le Traité Eruditio Regum et Principum de Guibert de Tournai (étude et texte inédit). By A. DE POORTER. Louvain: Institut Supérieur de Philosophie de l'Université, 1914. Pp. xv, 91.

Les Philosophes Belges. Tome III. Les Quodlibet Cinq, Six et Sept de Godefroid de Fontaines (Texte inédit). By M. DE WULF et J. HOFFMANS. Louvain: Institut Supérieur de Philosophie de l'Université, 1914. Pp. iv, 416.

Quomodo sedet sola civitas. The sight of these two handsome volumes, the most recent addition to the series of texts of mediæval Belgian thinkers issued by the University of Louvain, must intensify the horror and disgust felt by all lovers of the things of the mind at the infamous outrage recently perpetrated by the hordes of a modern Attila on a seat of learning and science not more venerable by its ancient traditions than honoured by the contributions it has made in our own time to the intellectual life of Europe. The writer of this notice begs, in the name of all subscribers and contributors to *MIND*, to express to the members of the great Belgian University the profoundest sympathy with them in the monstrous wrongs inflicted with equal perfidy and cruelty upon their illustrious native land and their honoured society, and the most earnest hopes that when, before long, the murderers and brigands whose work these horrors are, have reaped as they have sown, the University of Louvain may resume its activity and add fresh distinctions to the many it already enjoys.

Guibert of Tournai's letters to St. Louis on the duties of kings cannot, perhaps, be said to contribute much to political theory. The writer is more concerned to call attention to special abuses and to make practical suggestions for their immediate mitigation than to speculate on the nature and functions of government. It is historically interesting, however, to find that he raises and deals with the problem of the "two swords" in a way which altogether avoids any reference to the Empire and the Emperor. Writing in 1259 he addresses the French King in a way which assumes that monarch to be, in his own realm, the supreme wielder of the civil "sword". In effect, though he never has occasion to be explicit on the point, he tacitly takes it for granted that, according to a famous later formula *rex in regno suo est Imperator regni sui*, and makes no reference to the common mediæval theory of the necessity of a world-emperor. The implied doctrine that the King of France is wholly

independent of the Empire was, as we all know, hotly contended for by French publicists from the beginning of the fourteenth century; its tacit adoption by Guibert seems interesting as an indication that it was already held at the Court of St. Louis in the middle of the thirteenth.

MM. de Wulf and Hoffmans give us the second of these volumes which were planned to contain the *Quodlibetu* of Godefroid of Fontaines. Space and the character of MIND naturally prevent elaborate examination of such a collection of what we should now call "mixed essays" on questions alike of metaphysics, theology, psychology, ethics and casuistry. As an illustration of the singular "modernity" of many of the problems which vexed the mediæval schools it is interesting to find an elaborate discussion of the question whether a term can be its own *relatum*.

A. E. T.

Geist und Freiheit, Allgemeine Kritik des Gesetzesbegriffes in Natur- und Geisteswissenschaft. Von WALTHER KÖHLER, Doktor der Philosophie zu Berlin. Tübingen: Verlag von J. C. B. Mohr, 1914. Pp. viii, 174. Price, M. 4.80.

This work represents generally the author's solution of the question of natural law and freedom, and its general procedure is that of Kant and his more idealistic successors. Its special interest lies in the changed scientific situation. While Kant found his basic contrast between the sure and steady progress of natural science and the confusion of metaphysics, Dr. Köhler's conclusions emerge from a comparison of the cross-purposes and inconclusiveness characterising for him the hypotheses and investigations of the most recent science with the constancy of the conditions in thought of scientific results. He finds that the more narrowly we scrutinise the modern sciences the more clearly does it come out that they are entirely the free product of thought. (1) "Nature" is a thought-construction, whose main principle is the law of contradiction. As it has no material unity whatever, we should not look for unity of aim or result among the sciences. (2) Scientific laws turn out now to be no more than definitions, e.g., the principle of the conservation of energy merely defines energy, and so with the law of attraction, etc. (3) In the mathematical *expression*, which is the sole condition of their exactitude, these laws are necessarily symbolical; mere description is impossible. This again points to the free play of mind. (4) The notion of Law itself disappears, within the scientific procedure itself, in the system of Theory.

From this position the transition to freedom is generally Hegelian in method—it is by way of History. The author denies the possibility of historical "laws," and consequently the existence of a science of sociology; our social knowledge being a "moment" in historical. In World-History we transcend the antithesis of thought and its subject-matter which is essential to natural science and its *Gesetze*. In History the understanding is also intuitive; the true historian would have to be himself a historical Person. Structural Totality is now the leading idea, from which we derive necessity, but further that of freedom. In this latter argument the author preserves the notion of causation, of which he takes an evolutionary and historical view. Causation is teleological and creative, but then there is no causation except within a spiritual totality, and the idea of it arises there when we attend to the distinction of universal and particular.

Though the scientific references are quite adequate and to the point, the argument as a whole is very abstract, and this tells at least on the

historical part. There is no discussion of alternative theories of History, beyond the mere suggestion that there might be historical laws if historical knowledge dealt not with the essence of historical events, but with an external construction of the type employed in natural science. Still it is usual to allow the idea of a pre-historic, and were the author to take account of this he might have to reverse his remarkable view of the priority of historical to sociological conceptions. Perhaps this is avoided by making the question that of *World-history*, but, if so, the insistence on the absence of knowledge of the scientific type would not seem to retain much meaning or importance. One feels that the whole argument gets much of its plausibility from a confusion, in the scientific discussion, of absolute phenomenalism of a Kantian type with the relative phenomenalism assigned to science by such a position as that of Hegel. This would seem to underlie the view of the absolute disappearance of Law in the scientific sense at the stage of "spirit". But no one can expect to be allowed the advantages of both positions at once.

W. ANDERSON.

Spinozas Stelling zur Religion (Studien zur Geschichte des neueren Protestantismus. Heft 9). By Dr. GEORG BOHRMANN. Giessen: Tölpelmann, 1914. Pp. 84.

A careful and detailed study of the problems suggested by Spinoza's apparent recognition, especially in the *Tractatus Theologico-Politicus* of two distinct types of religion, "revealed" and "philosophical". In the main Dr. Bohrmann's conclusions do not seem to me to differ in any important respect from those more briefly expressed in Sir Frederick Pollock's discussion in *Spinoza, His Life and Philosophy*. This is to say that I think him in the main right in holding that Spinoza's language about "revealed religion" is not intended to be a full expression of his own personal views and that there is a good deal of "accommodation" to the prejudice of the "multitude" in his apparent readiness to recognise the reality of the "inspiration" of prophets and the supernormal character of the "signs" requisite to establish a man's claim to the prophetic office. At the same time, I cannot help feeling that there is always just the possibility that we may go a little too far in insisting on forcing an absolutely coherent and systematic theory about these matters on Spinoza. To be consistent, no doubt, he ought to have meant a great deal of what he says to be taken with a degree of mental reservation which would hardly be honest in our own tolerant times and, to speak plainly, was not quite heroic even in the Netherlands of the seventeenth century. There are statements in the *Tractatus Theologico-Politicus* about which I have always felt that if they are merely "accommodations" they are not quite worthy of their author, and even on Dr. Bohrmann's attractive hypothesis that the work was meant as an official exposition of the views of the *de Wits*, I do not find this feeling entirely removed. May it not be that Spinoza, like many another, was not absolutely consistent with himself about these matters. After all, we can hardly doubt that he was proud of his race, their language and their sacred literature, and it would not surprise me if this laudable pride led him at moments when he felt warmly, to use language about prophets and prophecy which we can see to be unjustifiable on his metaphysical principles without being himself aware of his inconsistency. There is a valuable appendix to Dr. Bohrmann's essay in which he gives a fuller list of early British notices of Spinoza than any I have seen elsewhere.

A. E. T.

Received also :—

- George Trumbull Ladd, *What Ought I To Do? An Inquiry into the Nature and Kinds of Virtue and into the Sanctions, Aims and Values of the Moral Life*, New York, etc., Longmans, 1915, pp. vii, 311.
- Charles Gray Shaw, *The Ego and Its Place in the World*, London, George Allen, 1913, pp. xii, 520.
- Alexander Philip, *Essays towards a Theory of Knowledge*, London, Routledge, 1915, pp. 126.
- Philip Bosewood, *Handwork as an Educational Medium*, London, George Allen & Unwin, Ltd., pp. 228.
- H. Stanley Redgrove, *The Magic of Experience, A Contribution to the Theory of Knowledge*, with an introduction by Sir W. F. Barrett, London, etc., J. M. Dent & Sons, 1915, pp. xi, 111.
- The International Crisis in Its Ethical and Psychological Aspects*, Lectures delivered in February and March, 1915, by Eleanor M. Sidgwick, Gilbert Murray, A. C. Bradley, L. P. Jacks, G. F. Stout, B. Bosanquet, under the Scheme for Imperial Studies in the University of London at Bedford College for Women, London, etc., Humphrey Milford, Oxford University Press, 1915, pp. 154.
- Morton Prince, *The Psychology of the Kaiser, A Study of His Sentiments and His Obsessions*, London, T. Fisher Unwin, Ltd., 1915, pp. 73.
- Rev. O. C. Quick, *Modern Philosophy and the Incarnation*, London, S.P.C.K., 1915, pp. 96.
- James Alexander, *The Cure of Self-consciousness*, Newcastle-upon-Tyne, etc., Andrew Reid & Co., Ltd., 1915, pp. xiii, 151.
- James Urquhart, *The Life and Teaching of William Honyman Gillespie of Torbanehill*; author of *The Argument, a Priori, for the Being of God, etc.* (Prepared on behalf of the Trustees of Mrs. Honyman Gillespie of Torbanehill.) With a Bibliography of the Ontological Argument by E. Lloyd Morrow, Edinburgh, T. & T. Clark, 1915, pp. 283.
- The Mind of the Race, The Wild Asses of the Devil, and The Last Trump, Being a First Selection from the Literary Remains of George Boon, Appropriate to the Times*, with an Ambiguous Introduction by H. G. Wells, London, T. Fisher Unwin, Ltd., 1915, pp. 342.
- William Briggs and G. H. Bryan, *The Tutorial Algebra (Advanced Course), Based on the Algebra of Radhakrishnan*, London, W. B. Clive, University Tutorial Press Ltd., 1913, pp. viii, 645.
- The Works of Aristotle, Translated into English under the editorship of W. D. Ross: Magna Moralia*, St. George Stock; *Ethica Eudæmica, De Virtutibus et Vitiis*, J. Solomon; Oxford, Clarendon Press, 1915, pp. xxiii, 1251.
- The Works of Aristotle, translated into English: De Mundo*, E. S. Forster; *De Spiritu*, J. F. Dobson; Oxford, Clarendon Press, 1914, pp. iv, 485.
- Émile Boutroux, *Certitude et Vérité*, from the Proceedings of the British Academy, vol. vi., London, Oxford University Press, pp. 22.
- Alessandro Bonucci, *Il Fine dello Stato*, Roma, Athenæum, 1915, pp. 456.

VIII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xxiv., No. 2. **J. H. Tufts.** 'Ethics of States.' [The intrinsic character of the state and the nature of its organisation serve to maintain and reinforce the historical precedence of self-preservation and honour over justice, not to say benevolence; yet national appeals for moral approval mark a new stage in the development of a world-conscience.] **F. Znaniecki.** 'The Principle of Relativity and Philosophical Absolutism.' [An absolute system based on relativity must (1) study the relations by which values are connected in systems (extension of logic) and (2) unify the totality of value-systems in a new and universal system (creative metaphysics).] **W. K. Wright.** 'The Evolution of Values from Instincts.' [Argues, following McDougall and Shand, that valuation rises by co-ordination of the ideas concerned with the conflicting instinctive impulses.] **E. G. Spaulding.** 'Proceedings of the Fourteenth Annual Meeting of the American Philosophical Association.' 'Reviews of Books. Notices of New Books. Summaries of Articles. Notes.—Vol. xxiv., No. 3. **A. Lalande.** 'Philosophy in France, 1913-1914.' [Reviews the work of Couturat; then takes up in order books on general philosophy (Fouill  , Weber, Maury),   sthetics (Kostyleff, Dauzat, Souriau, Paulhan, Lalo) and 'objective' psychology.] **L. E. Akeley.** 'Bergson and Science.' [The history of science is that of the growth of human power over the forces of nature, not the discovery of truth hidden in nature and waiting to be found; and science in the making comes from the realms of intuition. Hence scientific men may learn from an intuitional philosophy.] **N. K. Smith.** 'Kant's relation to Hume and to Leibnitz.' [Kant's rationalistic problem was to reconcile Leibnitz's view of the legislative function of pure reason with Hume's proof of the synthetic character of the causal principle. Kant knew the *Treatise* through Beattie.] **H. W. Wright.** 'Principles of Voluntarism.' [To solve the problem of knowledge we must transcend rationalism and empiricism, and treat thought as an expression of will. Will, the power in man which strives to initiate such sequences of movement as satisfy the greatest variety of interests, itself implies the dualism of movement and choice, necessity and freedom; this can therefore be removed only by activity of will. The task is moral or practical.] Reviews of Books. Notices of New Books. Summaries of Articles. Notes.

PSYCHOLOGICAL REVIEW. Vol. xxii., No. 1. **R. S. Woodworth.** 'A Revision of Imageless Thought.' [Reviews and meets criticisms; then proceeds, by way of a survey of work on memory, to formulate a theory of perceptual reaction. "Its basic idea is that a percept is an inner reaction to sensation," which adds new content of a non-sensory kind; every such reaction is specific, and contributes specific content. "In recall, it is these perceptual reactions that are revived, and not sensation."] **K. Dunlap.** 'A New Measure of Visual Discrimination.' [Test

of acuity by the double images of a bright rectangle.] **J. W. Todd.** 'An Electro-mechanical Chronoscope.' [From the Psychological Laboratory of the University of California.] **W. Brown.** 'xviii. Practice in Associating Colour-names with Colours.' [The relative slowness of colour-naming as compared with word-naming is due neither to practice nor to overlapping of the two functions.] **B. von der Nienburg.** 'xix. The Apparent Rate of Light Succession as Compared with Sound Succession.' [Light succession is not always apparently quicker than sound succession; the light series seems the more rapid if rate is high, if series are long, and if light precedes sound.] **A. H. Chamberlain.** 'xx. A Memory-test with School Children.' [Objects shown in groups of three are better recalled than single objects; the total average of recall for all grades and for all methods of presentation shows that girls are not superior to boys.] **W. Brown.** 'xxi. Practice in Associating Number-names with Number-symbols.' [Words are named more quickly than objects, somewhat less quickly than arabic numbers; the speed of word-naming depends neither on practice nor on suggestion from the letters.] **W. Brown.** 'xxii. Incidental Memory in a Group of Persons.' [Recall of advertisements; items which appeal to the largest number make the strongest appeal to most of that number; items which appeal to a few only, appeal weakly to them.] Vol. xxii., No. 2. **G. A. Coe.** 'A Proposed Classification of Mental Functions.' [Distinguishes biological and preferential functions; the former are increase in range (space, time, magnitude, quality) of objects responded to, and of co-ordinations to which co-ordinated response is made; the latter are consciousness, multiplication, control and unification of objects, communication, contemplation.] **K. Dunlap.** 'Colour Theory and Realism.' [Assume yellow, peacock, mauve, and neutral as fundamental; the theory will square with sensational realism.] **T. H. Haines.** 'Point Scale Ratings of Delinquent Boys and Girls.' [The Yerkes-Bridges scale agrees on the whole with the Binet-Simon; the cases of disparity are significant.] **C. E. Ferree and G. Rand.** 'A Preliminary Study of the Deficiencies of the Method of Flicker for the Photometry of Lights of Different Colour.' [Attacks the flicker-method on the ground of sureness of principle. The eye is very much under-exposed to its stimulus. That this fact is not negligible is shown by a characteristic underestimation of the luminosities of red and yellow, and overestimation of those of blue and green; by variation of these deviations with variation of the ratio of time of exposure to the coloured and colourless light; and by the divergence of flicker-results from those of the method of brightness-quality.] Discussion. **S. B. Russell.** 'The Functions of Incipient Motor Processes.' [Argues against Washburn that a motor discharge which is too faint to cause contraction may yet excite in the muscle sensory terminals which communicate with cortical centres, and may thus furnish 'strain-signals'.]

BRITISH JOURNAL OF PSYCHOLOGY. Vol. vi., Pt. 2. **C. S. Myers, G. Dawes Hicks, Henry J. Watt and William Brown** contribute a symposium on 'Are the Intensity Differences of Sensation Quantitative?' [Myers applies to the question the "all or none" principle of spinal reflexes. He concludes that the ultimate difference between the quality and the intensity of sensation depends on the nature of the underlying reaction. "Broadly speaking when the reaction changes its fundamental type it alters in quality and the sensation also changes in quality. So long as the reaction preserves its fundamental type, it can be said to vary only in quantity, and the sensation changes also in intensity." But intensities "are not quantitative in the sense that there is a moreness or lessness of excitation within the same anatomical area";

for we have "reason to believe that any given neural tissue, central or peripheral, follows the 'all or none' principle". Dawes Hicks gives criticisms of various psychological assumptions of Myers, of Bergson's explanation of the reason why we regard sense contents as quantitative, and of Meinong's interpretation of Weber's law. He maintains that differences of intensity may be regarded as magnitudes but not quantities. Watt claims that intensity cannot be treated as a "Multitude"; nor can an object "at one and the same time be directly immeasurable and indirectly measurable". Myers's contention that "the psychological correlate of intensity differences is a sub-group of extensive changes" may be true but does not help to elucidate the real nature of intensity. Brown agrees with Myers, and seeks to justify the actual methods of measurement of intensities adopted by such experimentalists as Ebbs, and Titchener.] **C. W. Valentine.** 'The Aesthetic appreciation of Musical Intervals among School Children and Adults.' [Order of pleasingness of intervals found to be very different from order of degree of consonance. Minor third and minor sixth less frequently described as sad than are the major third and major sixth. Elementary school children show no appreciable preference for consonants before discords before the age of nine: but girls in preparatory schools, trained in music, reach by eight or nine years of age a stage of development only reached by the elementary school children at twelve. Correlation appears between general intelligence and musical capacity as determined by several kinds of tests.] **Godfrey H. Thomson.** 'Note on the Probable Error of Urban's Formula for the Method of Just Perceptible Differences.' [Indicates the error in Urban's application of Bernoulli's theorem for calculation of probable error in the method named.] **W. Brown.** 'The Effects of Observational Errors and Other Factors upon Correlation Coefficients in Psychology.' [Gives a means of testing empirically the validity of Spearman's correction formula, and shows inapplicability of formula in certain cases given examples. Author concludes that "for the accurate determination of a correlation coefficient a large number of measurements should be made at fixed intervals throughout an extended period of observation, and then the later measurements showing a sufficient degree of constancy of mean and σ should be averaged and the coefficient calculated from them alone".] **H. J. Watt.** 'The Main Principles of Sensory Integration.' [Gives an explanation of this author's use of the terms "mode" and "integration," and an exposition of three principles of integration, viz.: "1. The mode which results from the integration of an attribute must bear an immediate introspective resemblance to it. 2. The results of the integration of the same generic attribute in the different senses must be introspectively and functionally similar. 3. Every typical mode of experience must to some extent at least arise spontaneously and automatically and independently of such processes as will, attention, inference, proof."

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS. xii., 1. **W. H. Sheldon.** 'The Vice of Modern Philosophy.' [It contents itself with principles which cannot possibly be turned to practical account, or account for the specific character of any fact, and are therefore practically and intellectually barren. So philosophy has become "a narrow and unfruitful eccentricity".] **A. C. Armstrong.** 'The Principle of International Ethics.' [Discusses whether the morality of nations can be identified with that of individuals.] xii., 2. **G. A. Tawney.** 'What is Behaviour?' [It is not enough to describe it in terms of accommodation and habit; selection and valuation also must be treated as fundamental.] **E. L. Thorndike.** 'Ideo-Motor Action.'

[A reply to W. P. Montague ; cf. xi., 23.] **W. S. Hunter.** 'A Reply to some Criticisms of the Delayed Reaction.' [About the behaviour of some raccoons observed by Hunter and commented on by J. B. Watson.] **A. T. Poffenberger.** 'Report on the Meeting of the New York Branch of the American Psychological Association.' xii., 3. **G. P. Adams.** 'The Mind's Knowledge of Reality.' [Thinks that the 'dilemma of knowledge' is solved if "we can now say both that knowledge of reality is immediate and unacquired, that the mind and real do confront each other, but the knowledge of what it means to be real is not derived from experience".] **G. Santayana.** 'Some Meanings of the Word *Is*.' [Distinguishes (1) *identity*, as in 'xi. is 11,' (2) *attribute* as in 'wine is red,' (3) *existence*, (4) identity with a supposed 'substance' or 'cause'. But a thing is never 'nothing but' these.] **J. E. Russell.** 'Professor Hocking's Argument from Experience' [of nature to the existence of God. Hocking having argued that the unsatisfactoriness of nature makes certain a divine mind to cure it, it is objected this confuses the fact of experience with an interpretation of it. And as other interpretations of the fact are possible the argument fails.] **H. L. Hollingworth.** 'Report on the Twenty-third Annual Meeting of the American Psychological Association.' xii., 4. **G. C. Myers.** 'Affective Factors in Recall.' [Experiments with school children to decide whether there is preferential memory for the agreeable and inhibition of the disagreeable. This probably holds for 80 per cent. of the subjects, with the reservations (1) that "we forget not so much the disagreeable ideas as useless ideas," and (2) that for social reasons we are more prone to *express* the agreeable.] **W. T. Bush.** 'Report on the Joint Meeting of the American and Western Philosophical Associations at Chicago in December, 1914.' xii., 5. **G. Santayana.** 'Philosophic Sanction of Ambition.' [Contributes to the philosophising about the war the paradoxical idea that the Nietzschean Will to Power has been all along lurking in the classical German rationalism.] **W. B. Pillsbury.** 'The Mental Antecedents of Speech.' [Considers (1) 'how thought gets translated into words as one prepares to speak,' and (2) how this bears on actual vocal expression, and concludes that "the unit is a preliminary idea that develops in the sentence" and this "idea or intention is itself determined by wider antecedent intentions and in its turn determines the later and subordinate meanings or intentions". Thus "the end of the sentence may control the beginning as well as the beginning the end" and "no part can be isolated".] **G. F. Williamson.** 'Individual Differences in Belief, Measured and Expressed by Degrees of Confidence.' [A questionnaire research which investigated (1) "What is the correlation between an individual's degrees of confidence and the differences discriminated by him?" (actually *her*), (2) Has it social significance? (3) "Can subjective confidence be defined and quantitatively measured in terms of objective differences discriminated?"] xii., 6. **G. H. Mead.** 'Natural Rights and the Theory of Political Institutions.' [A historical survey leading to the conclusion that their "ultimate guarantee must be found in the reaction of men and women to a human situation so fully presented that their whole natures respond".] **G. A. Coe.** 'On Having Friends; a Study of Social Values.' [Concludes that (1) "the experience of having a friend involves valuing an object as experiencing. (2) Such valuing includes, and is the source of, our certainty of other minds. (3) When psychology seems to translate our naïve social consciousness into experience without experiencers it at most substitutes for one set of experiencers another . . . namely psychologists, actual and ideal. (4) Functional psychology errs when it treats consciousness as merely an instrument of adjustment: we adjust ourselves to it, not merely *through* it."] xii., 7. **G. H. Sabine.** 'The Social Origin of

Absolute Idealism.' [The reaction against *laissez faire* individualism used absolute idealism in the interests of liberalism; but F. H. Bradley showed that its tendency was really reactionary. Absolutism however in admonishing the individual to fulfil the duties of his station neglects "the evident fact that the individual in many cases must make rather than find his station". For "social evolution is an epigenesis".] **J. F. Dashiell.** 'Humanism and Science.' [Criticises two articles published in the *Philosophical Review* by Prof. Warner Fite, who had first attacked pragmatists for taking a 'mechanical' view of nature and then taken up the extreme humanist attitude that science should construe nature as personal. Dashiell points out that Fite's criticism is not substantiated and unfounded, and that the responsiveness of nature to human endeavours to know it hardly justifies us in construing it in terms of a "hylozoistic demonology".]

ARCHIVES DE PSYCHOLOGIE. Tome xiv., No. 4. **A. Descœudres.** 'Couleur, forme ou nombre? Recherches expérimentales sur le choix suivant l'âge, le sexe, et l'intelligence.' [Tests of the choice of colours, forms, and numbers. The gross results are: normal children of three to six, and abnormal of seven to sixteen, choose in the order familiar form, colour, geometrical form, number; normal children of seven to thirteen,—form, colour, number; adolescents and adults, —form, number, colour.] **V. Cornetz.** 'Fourmis dans l'obscurité.' [Ants (*Tapinoma*) find their way home in pitch darkness, without olfactory or tactual cues. The author suggests some kind of internal orientation, possessed in full development only by certain individuals, and perhaps akin to the 'sense of direction' sometimes shown by man when external cues are lacking or confused.] **P. Bovet** et **S. Chryssochoos.** 'L'appréciation "objective" de la valeur par les échelles de Thorndike.' [Proposes, for psycho-educational purposes, to replace Thorndike's scales by others, whose zero is the performance to which no other is ranked inferior by the unanimous verdict of a large number of judges, and whose unit is the least difference of merit between two performances unanimously recognised by these judges.] **C. Huguenin.** 'Reviviscence paradoxale.' [Confirmation of Ballard's 'reminiscence'. Differences of attention, or of interruption by associated processes, may account for the phenomenon.] Bibliographie.

ARCHIV F. D. GESAMTE PSYCHOLOGIE. Bd. xxxiii., Heft 3 u. 4. **A. Kirschmann.** 'Zeit und Bewegung.' [Movement is psychologically prior to time. If spatial continuity is assured, we perceive direction of movement long before we are able to apprehend duration.] **J. Krug.** 'Neueres zu den Raumtheorien Kants und Stumpfs.' [Defends Stumpf's theory of 'partial contents' against Schmied-Kowarzik (*Archiv*, xviii.). The perceived continuity of space can be accounted for in terms of 'form of combination'.] **P. Linke.** 'Das paradoxe Bewegungspheänomen und die "neue" Wahrnehmungslehre.' [Claims priority over Wertheimer and others. Describes an illusion of movement produced by the succession of black and white rectangles.] **V. Benussi.** 'Monokularlokalisationsdifferenz und haploskopisch erweckte Scheinbewegungen.' [Witasek's difference of monocular localisation does not appear if eye-movement is ruled out.] **S. Witasek.** 'Bemerkung zu vorstehender Abhandlung von V. Benussi.' [Plea for suspense of judgment and further work.] **F. M. Urban.** 'Über Grössenschätzungen in objektiven Massen.' [Discussion of the problem of estimation; suggestion of experiments; formal rules for the mathematical treatment of material such as that collected by Bauch on the estimation of tenths of millimeters.] **A.**

MacDonald. 'Die geistige Betätigung der Völker und antisoziale Erscheinungen.' [Illiteracy is correlated with murder, stillbirths, infant mortality; negatively with suicide and divorce. Literacy is correlated with suicide.] **H. Schmidkunz.** 'Psychologisches und Pädagogisches zur Werttheorie.' [The five kinds of value, ethical, logical, æsthetic, hedonic, technical, are represented in psychological types, normal, excessive, defective, indifferent; so that there are twenty 'pure' types, aside from mixture; these are characterised in the paper. Pedagogy, within its technical limits, has to do with all five values; for its own purposes, truly, but yet without violence to the values themselves.] **Boden.** 'Über eine experimentelle Methode der Gesetzgebung.' [The 'social consciousness' of justice could be ascertained if a large number of persons were given, not ready-made concepts under which cases were to be subsumed, and not the complex cases of the law-courts, but simplifications of actual cases; with the question whether the deed were punishable or not, and, if punishable, by what penalty. Legislation might thus be experimentally based upon an inductive-deductive method.] **Literaturbericht. F. Ackenheil.** 'Entgegnung.' [Reply to Bloch.] Bd. xxxiv., Heft 1. **G. Anschuetz.** 'Theodor Lipps.' [Appreciation and selected bibliography.] **H. Lehmann.** 'Sinnliche und übersinnliche Welt: Wundt und Kant.' [Kant's critique of knowledge aims to determine the form by which a given material is to be shaped; Wundt's, to analyse historically the process of knowledge, the shaping of a vast material. Wundt's book affords, among other things, an epistemological basis for the psychology of religion.] **F. Boden.** 'Ethische Studien.' [Ethics must broaden into the science of human conduct at large, with the threefold problem of education, sanction, creation. The bridge between individual and social ethics must be built by way of the psychology of impulse.] **A. Huther.** 'Der Begriff des Ästhetischen psychologisch begründet.' [The work of art appeals so strongly to the feelings because we live over again in ourselves the artist's creation (empathy), and because we recognise the work of human will and intelligence, and the human significance of the result.] **R. Mueller-Freienfels.** 'Studien zur Lehre vom Gedächtnis.' [The author, as against the associationists (1) distinguishes three modes of memory: orientating (a matter of feeling and attitude), reproductive, proving, in the memory-constellation, in increased excitability of contents, and in their disposition for determinate ends.] **T. Kehr.** 'Allgemeines zur Theorie der Perzeption der Bewegung.' [In cases of the movement of an object in space, our objective experience is simply that of a spatial waxing or waning; and our apprehension of this is made possible by the extensivity of perception on the subjective side.] **F. M. Urban.** 'Die empirische Darstellung der psychometrischen Funktionen.' [Discusses the problem of simple expressions which shall exhibit the course of the psychometric functions with the highest attainable accuracy.]

ZEITSCHRIFT F. PSYCHOLOGIE. Bd. lxx., Heft 5 und 6. **S. Baley.** 'Versuche über den dichotischen Zusammenklang wenig verschiedener Töne.' [Stumpf's dichotic lines may be determined; at about 500 vs. it amounts to some 9 to 15 vs. The paper contains observations on localisation, clang-tint, etc.] **S. Baley.** 'Versuche über die Lokalisation beim dichotischen Hören.' **C. Stumpf.** 'Anhang: Bemerkungen und Selbstbeobachtungen.' [It is possible to localise correctly, without movement of the head, a fairly large number of simultaneous tones sounded to right and left in dichotic hearing. The paper contains many observations of detail.] **H. Henning.** 'Das Panunische Phänomen.' [Critique of Jaensch and new experiments. All of Jaensch's objections

to Hering are invalid; and his theory is inadequate. His work with least separations confirms Hering; and Hering's empirical factor may be identified as the fusion of the single line with both of the paired lines. Jaensch has failed to distinguish between 'insistence' (which is irrelevant to the phenomenon) and stereoscopic effect.] **E. von Aster.** 'Theodor Lipps.' [Appreciation.] *Literaturbericht.*

RIVISTA DI FILOSOFIA. Anno vi., 1914. Fasc. iii. May-June. **B. Varisco.** 'L'imità dello spirito, e la morale.' [Men are distinguished from children by the more perfect unity of their self-consciousness. But this unification is not merely individual; it necessarily embraces the relations of human beings with one another. There are purely individual experiences, but there is the recognition of a common element without which there could be no reason and also no morality. Is there also a fundamental unity between man and the universe? According to Prof. Varisco there is such a unity, making reason and also morality possible. But here he seems to assume as axiomatic what most stands in need of proof.] **Achille Marucci.** 'Di alcune moderne teorie del Concetto.' [Criticises various modern theories of the concept from Romanes to Benedetto Croce. The writer prefers the experiential and evolutionary to the *a priori* and transcendental interpretation, Croce being handled with particular severity.] **A. Aliotta.** 'Dalla teoria dei modelli al panlogismo.' [Prof. Aliotta begins by observing that philosophy at the close of the nineteenth century was distinguished by a revival of irrationalism under all its manifestations—an orgy of fideism, pragmatism, and intuitionism. But we are now returning to the reign of reason, and in that allegiance he is happy to find himself associated with Annibale Pastore. The two, however, are separated by some important differences, here discussed at length. Both agree in accepting the rationality of nature; and both uphold Hegel. But surely the definition of nature's reasonableness, accepted by both Italians, which consists in the principle that when certain material conditions are repeated they are followed by identical results (p. 313) is not Hegel's logic—nor anything like it. More might be said for the vaguer principle, here reproduced, that nature remains ever consistent with herself; only it would be a very poor description of Hegel's theory that the universe is constituted by the evolution of opposites from one another and their reconciliation in a higher unity.] *Recensioni, etc.* Fasc. iv., 1914. July-August. **R. Ardigò.** 'La meteora mentale.' [Discussing the celebrated statue of Condillac with its sum of sensations ingeniously offered as constituting by their simple enumeration a sufficient account of mind and its nature, the venerable Italian Positivist condemns this view as a mere survival of the old metaphysical psychology with its spiritual faculties strung together on an abstract ego, substituting for it, as would seem, the mechanism of a cerebral organism.] **R. Ardigò.** 'Filosofia e positivismo.' [Knowledge is related to its object as a photograph to the things it represents; the two are analogous but not identical.] **B. Varisco.** 'L'arte nell'educazione del sentimento nazionale.' [True culture to be complete, demands the development not merely of intellectual acquisitions but also of sensuous impressions. The necessary combination is furnished by art. And the art studied should be national. In this respect Italy has been looking too much to foreign influences, but for some time things have been improving. Yet more ought to be done by the Government; and if it cannot increase the existing amount of beauty at least it might not make things worse by destroying beautiful objects; and educational buildings in particular might well be made more ornamental.] **G. Maggiore.** 'Intorno all'Etica bruniana.' [Giordano Bruno properly conceived morality as a

realisation of the ideal, representing justice as the mainspring of human progress; like Socrates setting the seal of heroic martyrdom on his teaching.] **A. Mieli.** 'Per una classificazione delle arti.' [The arts admit of a twofold division as they fall in space or in time. Under space come architecture, sculpture, and painting; under time music, drama, and literature. But there is another tripartite division; architecture and music being classed together as constructive, sculpture and drama as reproductive, painting and literature as imaginative arts.] **G. Rizzo.** 'Il problema fondamentale della filosofia moderna o la originalità di Rosmini.' [Truth is neither exclusively objective nor exclusively subjective, but involves an active relation—a great discovery reserved for Rosmini.] **Julia Dicksteinowne.** 'Un filosofo polacco.' [Gives a brief but touching account of Adam Mahrburg, the Polish positivist who in the face of unemployment, persecution and lastly disease, constructed a philosophy based on Auguste Comte's but in some ways departing from it.] **A. Gnesotto.** 'Ancora del giudizio particolare.' Recensioni, etc. Fasc. v., 1914. September-December. [A good deal of this number is devoted to commemorating the centenary of J. G. Fichte's death which occurred in January, 1814, after the victorious passage of the Rhine by the German army. If character counted for marks in modern philosophy no name would stand higher than that of Fichte. But his intellectual position is also most eminent. Indeed it is the pivot on which all German speculation turns. Kant had a more enduring influence; but Fichte is the intermediary connecting Kant on the one hand with Schelling, Hegel, and Schopenhauer on the other. Moreover he created the method of Thesis, Antithesis and Synthesis now associated exclusively with Hegel's name. Of more doubtful validity but good as an evidence of power is Fichte's claim, generally accepted in his own country, of Germany's leadership in universal thought. His demand for absolute freedom of religious opinion, denied even to Kant, although at first unsuccessful at Jena has ended by scoring a victory all over Western Europe. Finally, for writing-power he has been pronounced by no less a critic than J. S. Mill to be the most eloquent of the transcendentalists. The Christmas Number of the Italian Review opens with a glowing tribute to the memory of this great man, referring to the high panegyrics pronounced on him by Windelband and Eucken. It is followed by bibliographical notices of Fichte's writings and correspondence by **A. Rava**; on his work as an educationalist by **E. Moreselli**; and on his first dialectic method by **M. Losacco**.] Of more modern interest are: **A. Gemelli.** 'L'intuizione ed il concetto nella Neo-scolastica italiana.' [The Italian Neo-Scholastics are agreed in holding (against W. James and Bergson) that philosophy is essentially a conceptual elaboration; but they are not agreed as to what concepts are admissible in modern philosophy, nor as to what is really valid in the objections of modern intuitionism.] **G. Mazzalorso.** 'Variazioni su vecchi motive.' [Discusses in a rather sceptical spirit and with copious references to other writers—among whom Italians hold a prominent place—whether an objective truth and right can be known by man.] Bibliografia, recensioni, etc.

'SCIENTIA' (RIVISTA DI SCIENZA). Vol. xv. No. 4. July, 1914. **B. Russell.** 'The Relation of Sense-data to Physics.' [Physics exhibits sense-data as functions of physical objects, but verification is only possible if physical objects can be exhibited as functions of sense-data. Further, in so far as physics leads to expectations, this *must* be possible, since we can only expect what can be experienced. We have therefore to solve the equations giving sense-data in terms of physical objects, so as to make them instead give physical objects in terms of sense-data. This problem leads to much interesting logico-mathematical work. In

this paper a rough preliminary sketch is given. The tendency seems to be characterised by such a remark as: 'Since the "thing" cannot, without indefensible partiality, be identified with any single one of its appearances, it came to be thought of as something distinct from all of them and underlying them. But by the principle of Occam's razor, if the class of appearances will fulfil the purposes for the sake of which the thing was invented by the prehistoric metaphysicians to whom common sense is due, economy demands that we should identify the thing with the class of its appearances. It is not necessary to *deny* a substance or substratum underlying these appearances; it is merely expedient to abstain from asserting this unnecessary entity. Our procedure here is precisely analogous to that which has swept away from the philosophy of mathematics the useless menagerie of metaphysical monsters with which it used to be infested.' Again: 'The supreme maxim in scientific philosophising is this: *Wherever possible, logical constructions are to be substituted for inferred entities*.'] **H. A. Lorentz.** 'La gravitation.' [Examination of theories of gravitation whose aim, as distinguished from mechanical theories of gravitation, is to bring gravitation into connexion with other phenomena and to imagine the nature of the bonds which unite it to these phenomena. Three such theories are here spoken of: (1) Lorentz's own (1900) 'electromagnetic theory of gravitation'; (2) The relativist theory of Poincaré and Minkowski (1906 and 1908); (3) The theory of Einstein (1907, 1911, 1914).] **L. Cuénot.** 'Théorie de la préadaptation.' [Considering the insufficiency of the classical explanations of adaptation by selection, it is natural to think of adaptation before entry into the environment; and the notion of preadaptation falls into line with that of mutations and with the Mendelian theory.] **A. Adler.** 'Die Individualpsychologie, ihre Voraussetzungen und Ergebnisse.' **R. Pettazoni.** 'Storia del cristianesimo e storia delle religioni.' [From its beginnings to its full development, the history of Christianity is closely connected with the universal religious history of humanity.] Critical Note: **M. Abraham.** 'Sur la problème de la relativité.' [On Einstein's article in the May number of *Scientia*.] General Reviews. **F. Savorgnan.** 'Les antagonismes sociaux.' Review of Reviews. Chronicle. French translations of the German, English, and Italian articles. A very interesting number. Vol. xv., No. 5. September, 1914. **T. C. Chamberlin.** 'The Planetesimal Hypothesis.' [Presents evidence "that the planets sprang from the sun, not at his birth, but later in the course of his history. The satellites might easily seem to be the offspring of the planets, and this was the common view in the last century, but there are signs that planets and satellites had a common birth and that the satellites escaped being little planets only because their birth-places fell within the spheres of control of their larger sisters to whom they were forced to dance attendance as a first duty, and respond to the common call of the sun incidentally."'] **D. Einhorn.** 'Archigonie und Deszendenztheorie.' **C. Golgi.** 'La moderna evoluzione delle dottrine e delle conoscenze sulla vita. Parte I^a: I problemi fondamentali bio-fisiologici.' **O. Jespersen.** 'Energetik der Sprache.' [The text of this is Humboldt's remark that language is not an *Ergon*, a completed work, but an *Energetia*.] **Ch. Guignebert.** 'Le dogme de la Trinité. III^{ème} Partie: La crise arienne, S. Augustin et le symbole d'Athanase. IV^{ème} Partie: Immobilité, décadence et ruine.' Critical note. **R. Maunier.** 'Les lois de l'évolution de l'art.' [On a recent book by W. Deonna.] Book Reviews. General Reviews. **S. Magrini.** 'Électrons et magnétions.' **W. Oualid.** 'Revue annuelle d'économie. I. Questions générales. II. La valeur et les prix. III. La répartition. Review of Reviews. Chronicle. Supplement containing French translations of the English, German and French articles.

IX.—NOTES.

MIND AND ITS OBJECTS.

IN MIND No. 93 Mr. J. E. Turner makes some comments on my paper on the Basis of Realism to which I will reply briefly, thanking him for them. My reply will be brief for the alleged inconsistencies appear to me to rest on verbal misunderstandings; and otherwise Mr. Turner raises questions which could only be answered now at great length and fall outside the limits of my paper. I refer to the comments by their numbers.

(1) and (2). In speaking of the compresence of mind and its object I add the caution that compresence does not imply simultaneity but only belonging to one world. As I was speaking of mind, I said "one experienced world". Mr. Turner supposes that the point lies in the word "experienced". It might have been omitted, perhaps with advantage, but he himself sees that any two compresent things experience one another in my view, in a wide sense of experience. Thus his difficulty that compresence has not the same sense as between mind and its objects and as between two physical objects disappears. I suppose from (2) that he finds it impossible to speak of the compresence of mind with a past object (as e.g. when I see the sun eight minutes late). That comes from denying the reality of time, so that the past as past ceases to be real. (See also on (4) below.) But for me time is real, quite extraordinarily real; and the past as past is just as real as the present, only it is not present.

(3) Mr. Turner thinks that I commit the confusion of denying consciousness to be a relation and at the same time holding knowing to be a relation. He is mistaken. Consciousness (including knowing) is an act and stands in relation with its object. I call the relation the cognitive relation, which corresponds to the word "of" in the phrase "consciousness of the object" (p. 14). On page 24, which he quotes imperfectly, I say "object and subject enter into a relation, that of being known on one hand and that of knowing on the other". The relation of knowing is the cognitive relation; knowing itself is an act. Only we do not say knowing *of*, though we do say knowledge *of*.

On the basis of this misconception that knowing and with it perceiving, conceiving, etc., are relations while consciousness itself is not, I am supposed (6) to hold that consciousness is different from them. Of course these are all specific conscious acts, which, equally of course, are in relation with their objects.

(4) The proposition that "the mind knows things" is declared inconsistent with the proposition that "the mind is the whole tissue of mental processes, considered as a whole". Apparently "knows" (underlined) is taken with some different interpretation from mine, but if so I am not chargeable with inconsistency. But I think Mr. Turner means that a tissue of processes in time cannot have the identity necessary for knowledge, because a temporal series is transient. In fact time is taken to be unreal. I quite admit the problem involved. But Mr. Turner forgets that I spoke of mind as a tissue of *processes*. That was enough for

my purpose. But I did not analyse process or a tissue of them. Such an analysis would I believe remove the difficulty. But it would mean an investigation of motion. Meantime I plead that the work can only be done empirically. We must not start with preconceptions about time. It may turn out that though the empirical facts may be hard to understand, it is the preconceptions that may be wrong. Nobody doubts that Cæsar really *was* assassinated.

(5) Consciousness was said by me to be a new quality which emerges in nervous process when it is of a certain grade. The act of consciousness is the process as having this quality. I referred and can only again refer to the later chapters of Mr. Lloyd Morgan's *Instinct and Experience*. Mr. Turner thinks my whole doctrine of the spatiality of mind commits us to materialism. But though mind should be expressible without residue in terms of motion, it is not therefore mere motion. On the contrary there is a higher quality than mere motion, namely mind. Here too there is a far deeper problem. Can there be anything which does not contain something corresponding to mind? As to materialism, if it were materialism what is there so dreadful in that? I think myself it is as far as possible removed from materialism as that word is understood. But if it is materialism, then you would have to count Spinoza amongst others a materialist. And for my part if I am sent to a part of the Inferno where I shall be in sight of Spinoza I shall think I am being let off very easily.

S. ALEXANDER.

MIND ASSOCIATION.

Mr. H. H. Broodryk, Public School, Barkly East, South Africa ;

Rev. P. J. Kirkby, D.Sc., Saham Rectory, Watton, Norfolk ;

Mr. W. A. Pichard, Cambridge ;

Prof. R. D. Ranade, Fergusson College, Poona, India, have joined the Association.

Robert Gibson, M.A., Fellow and Tutor of Balliol College, Oxford, and Captain in the 2nd Battalion of the King's Own Scottish Borderers, is the first member of the Association to lose his life in the present war.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY



I.—NIETZSCHE ON THE PROBLEM OF REALITY.

BY WILLIAM MACKINTIRE SALTER.

As regards the problem of reality, the essential logic of Nietzsche's procedure, so far as it reached any finality—and it really fell short of this, so early was his breakdown (he was forty-five)—appears to have been something like the following; at least his varying and superficially discordant views may be conveniently summarised and arranged in this fashion:—

(1) The world (the world as we commonly understand it) is not real—the world of "science" as little as that of common sense.

(2) We make the world real, *i.e.* posit it as such, have to for life, and none the less delude ourselves.

(3) Is there any reality?

(4) Reality conceived as power and will to power.

I.

The first proposition, *the world is not real*, appears in an interesting anticipatory form in an early fragment, "On Truth and Falsehood in the Extra-moral Sense". The full-fledged view comes to expression repeatedly later. The world of colours, sounds, resistances, etc., exists only in our mind or feeling.¹ Abstract the sensibilities of sentient beings, and it would disappear. We have no reason to suppose that our images of tree, stone, water, etc., faithfully reflect things outside us.

¹ Cf. *Will to Power*, §§ 516, 545.

They are our creation, in response to stimuli that come to us : to one stimulus we respond with colour, to another with sound, and so on. We may think that we can account for the stimulus by saying that it comes from an object, but all the objects we have any acquaintance with are resolvable themselves into sensations and groups of sensations like the preliminary ones we set out to explain. If we say, for example, that green comes from a tree, we soon become aware that the tree itself (so far as it is separable from its greenness), is but a cluster of other, perhaps more elementary, sensations of the same general kind, such as hardness, resistance, pressure or weight. If we abstract from *all* the sensations, no tree is left. As Nietzsche puts it, the *known* outer world is born after the effect, of which it is supposed to be the cause.¹ Our bodies themselves are, as we know them, groups of sensations like everything else—what they really are in their intimate nature we have not the slightest idea.²

Nor if we consider the more refined world of science, do we leave the subjective sphere. The world of atoms and their movements, which physicists conceive of as a true world in contrast with the ordinary world of sense-perception, is not essentially different from the ordinary world ; its molecules or atoms are only what we should see or handle had we finer senses,—they and their movements are entirely of a sensational nature.³ Moreover, the supposition that there *are* ultimate, indivisible, unalterable units like molecules or atoms is pure invention—it is convenient to have them as a basis for reckoning, and, not actually discovering them, we create them ⁴ (I may remark by the way that Nietzsche thinks that the Dalmatian Boscovitch put an end to materialistic atomism, as the Pole Copernicus had done to the notion of a fixed earth⁵). It is the same with “force” or “forces,” in the purely mechanical sense. We know only effects—no one has ever got hold of a force, as mechanical philosophy pictures it.

¹ *Will to Power*, § 479.

² Cf. the early remark : “The sensation is not the result of the cell, but the cell is the result of the sensation, *i.e.* an artistic projection, an image” (*Werke*, vol. ix., p. 194).

³ *Will to Power*, § 636.

⁴ *Ibid.*, § 624. Nietzsche holds that there is nothing unchangeable in the world of chemistry—*e.g.*, it is quite superficial to say that diamond, graphite, and coal are the same because their elements are the same and because there is no loss in the weights of each in the process of transformation (*ibid.*, § 623).

⁵ *Beyond Good and Evil*, § 12.

Indeed this "force" is a piece of abstraction and a more or less arbitrary creation; we ourselves have a certain feeling of force (of tension, of overcoming opposition) in muscular exertion, and the physicist proceeds to take this force apart from the consciousness and feeling that it is and all its human accompaniments and to put it into the external world—really *there* it is an empty word.¹ Similarly fictitious are the purely mechanical push and pull, attraction and repulsion, imagined to exist between the atoms. Without an aim an attraction or repulsion is an unintelligible thing. The will toward something and to get it into our power, or to protect ourselves against it and repel it, is something we can understand; but the physicist's "attraction" and "repulsion" are words simply.² So as to necessity in the world: we put it there—we add it to the facts, for, because something acts definitely and always so acts, it does not follow that it is forced to.³ Equally mythological are the laws which things are supposed to obey.⁴ Sometimes scientific men give up attempts at explaining things, and content themselves with description—reducing phenomena perhaps to mathematical terms, and causality to relations of equivalence between them; but this mathematicising of things brings us no nearer objective reality, perhaps takes us further away from it—the abstract quantities and their relations being still essentially sensible things, though eviscerated and ghost-like forms of them.⁵

Although Nietzsche does not question the reality of the psychological world itself, he finds that fictitious elements are more or less introduced here. A subject, for example, in the sense of something added to the feelings and thoughts themselves, is fictitious. He criticises "I think," suggesting that "it thinks" would be a more proper expression, but adding that the "it," too, must in the end go: there is no "I" or "it" separate from the thinking—no constant unchanging reality of that sort.⁶ A "substance" of mind goes

¹ *Will to Power*, §§ 619-621, 551.

² *Cf. ibid.*, §§ 622, 627.

³ *Ibid.*, § 552.

⁴ *Ibid.*, §§ 629, 630. *Cf. Mixed Opinions and Sayings*, § 9; *Werke*, vol. xii., p. 30, § 56.

⁵ *Cf. Joyful Science*, § 373; *Werke* (Pock. ed.), vol. viii., p. x; *Will to Power*, §§ 554, 618. I need scarcely add that explaining and comprehending things is not a problem that Nietzsche thinks can be put to one side; *cf. the implications in Ibid.*, §§ 624-628.

⁶ *Cf. Beyond Good and Evil*, §§ 16, 17, 54; *Will to Power*, §§ 481, 488; *Werke*, xi., 185; § 76. Partly also there is a doubling process, as when we say "the lightning lightens" (*Werke*, xiv., 329, § 164).

in the same way;¹ indeed the body comes nearer to being a substantial reality than the mind, though to neither is "substance" really applicable.²

In the same way "things," as any wise distinct from their attributes or activities, are not real; object taken as a "thing" is no more real than subject, matter no more real than mind.³ A "thing" is only a certain sum of activities bound together by a concept or image. "Things," "objects," "subjects," "substance," "ego," "matter" are the metaphysics of the people, by which they seek to transcend the shifting realm of change, alone directly known to us; they want something permanent and this is the way they get it: but the entities are fictitious, imaginary.

Hence, in general, the world we commonly picture is a false one, not real: we fancy that it exists quite independently of us, that we simply find it—and we are mistaken. We may correct our images in this way and that, may make one interpretation of the world succeed another, but we do not get beyond images and interpretations: the data in the case are a meagre quantity, and even they are not reality itself (in the independent sense), but the way or ways in which reality affects us.⁴

¹ *Will to Power*, § 552; cf. *Beyond Good and Evil*, § 12. Even to the theologian, Prof. H. Weinel, the soul is no longer a thing, no "simple and hence imperishable substance," such as science before Kant strove to demonstrate (*Ibsen, Björnson, Nietzsche*, p. 6). Nietzsche finds as little "one soul" as "two souls" in our breast, rather "many mortal souls" (*Werke*, xiv., 37, § 75).

² Cf. *Thus Spake Zarathustra*, I., iv. Nietzsche finds two elements in the notion "substance," on the one hand, the idea of something permanent (see, e.g., *Werke*, xii., 33, § 62), on the other that of a subject (*Ibid.*, xv., 1st ed., 281), so that if "subject" disappears as without scientific warrant, substance must also.

³ *Will to Power*, §§ 551-552.

⁴ *Ibid.*, §§ 12 (A), 522, 542, 602, 604, 616. As to the falsity of the outer world, Nietzsche sometimes uses strong language but it is altogether exact from his point of view; he calls it the product of fantasy, a world of phantoms, poetry, the primitive poetry of mankind (*Werke*, xii., 36, § 69; 170, § 351; *Dawn of Day*, § 118). Indeed, the erroneousness of the world we imagine we are living in, is the surest thing we know (*Beyond Good and Evil*, § 34). Prof. A. Riehl asks how is it possible to speak of falsity and error if one does not know the truth (*Friedrich Nietzsche, der Künstler und der Denker*, 4th ed., p. 130); but Nietzsche says that the destruction of an illusion does not necessarily disclose the truth, and may only make the field of our conscious ignorance wider (*Werke*, xiii., 138, § 318). I may give an instance. There have been mythological explanations of gravitation and electricity. Does our conviction that they are mythological mean that we now have the truth as to the origin of these phenomena, and really understand them, or does it simply mean that the mythological explanations are seen to be

II.

Second, *we make the world real, i.e., hold it so, do so the better to live, and none the less delude ourselves.* The underlying thought is that life, uncertain and changing as it is, needs something on which to stay itself; with this it walks more securely, gains greater confidence. We assume that what we need exists, and, by a subtle process of self-deception, transfer some of our experiences into an objective and supposably unchanging world. As Nietzsche puts it, we project our conditions of maintenance, and turn them into predicates of existence.¹ We convert trees and stones and stars into independent realities and feel thereby at ease and secure. And when science comes with its analysis and makes us aware that these sensible objects cannot exist just as they appear, the same feeling and craving leads us to form (or to acquiesce in the effort of science to form) the idea of elementary kinds of matter, molecules, atoms, or what not, that do not have these palpable subjective references. Indeed practical need plays a large part in determining our beliefs in general. For example, experience gives us a whole host of particulars—how shall we get on with them? If everything is particular, and nothing like another, how can we know what to expect and how to act? Accordingly we classify the particulars or try to, and, so far as they have points of resemblance, we make groups of them—we say, this is the same as that, and reason and act accordingly. But there is no real identity in the world, and the pure theoretic instinct never would have invented such a notion: our ordinary reasoning and logic are but a rough

the result of hasty, superficial reasoning—this, though we are without a single positive idea as to whence the phenomena ultimately come? Hume appears to have held a similar view as to the illusoriness of the world, and for a similar reason. Prof. Norman Kemp Smith makes the following happy summary statement: "Hume's argument rests throughout on the supposition that perishing subjective states are the only possible objects of mind and that it is these perishing states which natural belief constrains us to regard as abiding independent existence. Such belief is obviously, on the above interpretation, sheer illusion and utterly false" (*MIND*, April, 1905, pp. 169-170). Cf. also Prof. R. B. Perry's *Present Philosophical Tendencies*, pp. 138-139. Nietzsche comes near to justifying the current characterisation of the view as "psychologism," or I might even say "biographism" (if a still more barbarous word may be allowed), in the following: "Man may stretch out as far as he will with his knowledge and seem to himself as objective as possible—in the end he gets nothing from it but his own biography" (*Human, All-too-Human*, § 513).

¹ *Will to Power*, § 507.

rule of thumb.¹ It is practical need, not theoretical interest, that determines the common ideas of causality, substance, subject, ego, being as opposed to becoming, also the ordinary articles of religious faith and conceptions like desert and guilt—they are useful to man and society, therefore we make them valid and true.² Christianity, Nietzsche observes, is necessary to most in old Europe now, and a religious doctrine may be refuted a thousand times, but if necessary, man will still hold to it.³ So valuations of things are necessary to life, and under the workings of similar impulses and by a similar self-deception we put good and bad into things, making them intrinsic there, though as matter of fact all values are of our positing and represent simply conditions of our self-preservation.

In other words, a large range of belief and even of so-called "knowledge" has nothing to do with truth and never came from the search for it.⁴ Nietzsche remarks that those who urge strictly scientific methods of thinking have the whole *pathos* of mankind against them.⁵ And so far does he go in sympathy with "mankind" that he is ready to say that if a choice has to be made between truth and the requirements of life, the requirements of life should come first. Why may not illusions be allowed to stand, he virtually asks,—on what ground do we say that truth has the greater right to be? He is the first thinker, to my knowledge, to turn truth itself into a problem.⁶ He criticises truth for truth's sake as much

¹ Cf. *Will to Power*, §§ 423, 515, 610; *Beyond Good and Evil*, § 191.

² Cf. *Will to Power*, § 497 (as to causality); § 513 (as to substance, subject, etc.); § 354 (as to religious errors).

³ *Joyful Science*, § 347.

⁴ Indeed error is so inwrought into the human constitution that when truth comes into the world, it can hardly live save in combination with error, being too forceless of itself (*Werke*, xii., 47, § 85). "As bloom to the apple, so does falsehood cleave to life" (*Ibid.*, xiv., 269, § 239). In a sense, error is even the presupposition of knowledge—e.g., we measure and judge things in general from fictitious standards, such as "being," "identity," "substance," "permanence," the "unconditioned"—all being "logical fictions" (*Ibid.*, xii., 23, § 39; 24, § 41; 46, § 82; 48, § 89; 208, § 442; xiv., 29, § 53; 31, § 59; *Beyond Good and Evil*, § 4). Even when one has discovered error, one is obliged to act according to it and as if he believed it (*Werke*, xii., 224, § 284). The false presuppositions are embedded in language and we cannot get rid of them, if we would (*Ibid.*, xi., 180, § 69; *The Wanderer and his Shadow*, § 11). I may observe that Nietzsche himself often speaks of sensible phenomena as if they were independent realities, quite like the rest of us.

⁵ *Will to Power*, § 469.

⁶ *The Genealogy of Morals*, iii., 24. The reverence for truth is, he holds, more or less the result of illusion, i.e., of thinking that the values which we put into existence are there independently of us.

as art for art's sake or the good for the good's sake,¹ saying that those who, instead of valuing these things from the standpoint of life, make them supreme over life, are only logical as they postulate another world than this one, since here truth, science at any cost, may be inconsistent with life and an absolute will to truth may be a hidden will to death.² Knowledge (in the strict sense) may actually not be desirable for most; the world as we picture and conceive it under the stress of life's needs may be better than the world as it really is³—our ignorance, even a will to ignorance, may be expedient for us.⁴

So keenly does Nietzsche feel all this, that for a moment he is willing to revise his idea of truth. Wishing to keep the word in its customary honorific sense, he says, let us agree to designate as truth what furthers life and elevates the type of man.⁵ As he once puts it paradoxically (mingling the two meanings of truth in the same sentence), truth is the kind of error without which a definite type of human being could not live.⁶ He tries valiantly to keep to this new definition.⁷ And yet the settled uses of languages prove too much for him and we find him continually relapsing into the ordinary methods of speech. He says time and again that the necessities of life prove nothing as to truth. Schematising for purposes of practical control he still specifically dis-

¹ *Will to Power*, § 298.

² *Joyful Science*, § 344; cf. *Will to Power*, § 608.

³ *Joyful Science* (Preface of 1886), cf. §§ 54, 299, 301, 344; *Genealogy*, etc., iii., § 24; *Will to Power*, §§ 583, 598 ("the truth is ugly"); *Joyful Science*, § 107 ("our final gratitude to art").

⁴ *Will to Power*, § 609. At the same time Nietzsche says this with a tone of pathos. Cf. "Ah, we must embrace untruth, and now the error becomes lie and the lie a life necessity (*Werke*, xii., 48, § 87)! "A question lies heavy on the tongue and does not wish to utter itself: can man consciously hold to untruth, and if he *must* is not death preferable" (*Human, All-too-Human*, § 34)? Nietzsche does not of course mean that all illusions or errors are beneficial—some may be harmful, even though they make happy for the time, cf. *Will to Power*, §§ 453-454.

⁵ *Ibid.*, § 51; cf. *Werke*, xii., 209, § 442.

⁶ *Will to Power*, § 493; cf. *Werke* (Pock. ed.), VII., xviii ("knowledge is error that becomes organic and organises"). How far this view corresponds with what is now known as Pragmatism, I leave to others more competent than myself to say. Prof. R. Berthelot says that Nietzsche did not know the word, but was the first to perceive distinctly a great part of the ideas so designated to-day (*Un romanticisme utilitaire*, vol. i., p. 33; pp. 33-193 of vol. i. are devoted to Nietzsche's theory of knowledge,—see however Prof. A. W. Moore's critical comment, *Philosophical Review*, Nov., 1912, pp. 707-709).

⁷ In accordance with it he speaks at times of "creating" truth (*Will to Power*, § 552).

tinguishes from knowing.¹ Is it really knowing a thing, he asks, to class it with something else with which one is already familiar and so find it less strange?—this when both alike may be unknown, the things we are most familiar with being sometimes the least known, inasmuch as they excite no curiosity and we fancy we know them already.² Comprehending, explaining, understanding—that alone fills out Nietzsche's idea of knowing; and classifying, not to say mathematising, only touches the borders of the subject.³ That a belief is convenient, practical, even necessary, proves nothing as to its standing *in foro scientiæ*. The law of causality, for example, may, like other so-called *a priori* truths, be so much a part of us that unbelief in it would cause our undoing—is it therefore true? As if truth were proved by our remaining alive!⁴ The idea of an "ego" may be indispensable, and for all that be a fiction.⁵ The ideas of a given type of being simply prove what is necessary for it, and the ideas may vary as the types vary. The Euclidean space may, like our kind of reason, be simply an idiosyncrasy of certain kinds of animals—other kinds might find necessary a space of four dimensions and have a different type of logic from the human.⁶ So with valuations. The valuations of one species, being from the standpoint of its particular interests, may differ from those of another species, the interests of which are different; or, if the ruling impulses

¹ *Will to Power*, § 515; cf. *Werke*, xiii., 52, § 123.

² *Joyful Science*, § 355; cf. *Will to Power*, § 479.

³ Cf. the distinction involved in *Ibid.*, § 503, where it is said that the whole apparatus of so-called knowledge is an apparatus for abstracting and simplifying—its aim being not knowledge proper, but the acquiring of control. Practical interpretation is distinguished from explanation in *ibid.*, § 604. Ordinary logic is set down as a falsifying process, presupposing as it does *identical* cases: it falsifies [theoretically] and carries through its [false] point of view [practically]—it does not proceed from the will to truth (*ibid.*, § 512). It must be admitted that Nietzsche does not always hold to this purely theoretic idea of knowledge. He says, for instance, in one place, that there is no pure willess subject of knowledge, only a perspectivist seeing or knowing (*Genealogy*, etc., iii., § 12); again, that it is a fatal mistake to posit a peculiar impulse to knowledge, which, without reference to advantage and injury, goes blindly after the truth, and then to separate from it the whole world of practical interests (*Will to Power*, § 423). But the inconsistencies here are perhaps no greater than in his varying language as to "truth".

⁴ *Ibid.*, § 497.

⁵ *Ibid.*, § 483; cf. *Beyond Good and Evil*, § 4, *Werke*, xiv., 16, § 24 (where the falsity of a judgment is said to be no objection to it, and that judgments most false may be the most indispensable).

⁶ *Will to Power*, § 515; cf. § 487, *Werke* (Pock. ed.), VIII., x. Nietzsche even makes reflections on the "law of non-contradiction" (*Will to Power*, §§ 515-516).

vary, differing estimations of ends and means, different interpretations of historical events, different world-perspectives generally may result.¹ It is naive to take *man* as the measure of things, either theoretically or practically.² We do not know but that some beings might experience time backwards, or forwards and backwards alternately, whence would result other directions of life and other conceptions of cause and effect than those with which we are familiar. It is a hopeless curiosity, indeed, to wish to see round our corner, but Nietzsche thinks or hopes that at least we are modest enough not to claim that our perspective is the only one. He even says that by reflections such as these the world becomes infinite to him again, *i.e.*, capable of an infinite variety of interpretations,—though he has no notion of worshipping the new infinity, since it may include *undivine* interpretations as well as the other kind.³ All the interpretations may be justified relatively to those who make them, and none have strictly objective warrant. But then the question arises (and this is the third point):—

III.

Are there any objective things, *is there any reality* (in the independent sense) at all? Nietzsche may have wavered here at times—in any case his language is not always consistent. Still two things stand out with tolerable distinctness. One is, that his very language about falsehood, error, illusion, indicate that in the background of his mind lurks the idea of something or other, the knowledge of which would be truth. Indeed he explicitly says as much—as, for example, in speaking of the possibility that the “real make-up” (*wahre Beschaffenheit*) of things may be so harmful to life, so opposed to its pre-suppositions, that illusion is needed to make life possible.⁴ He even uses Kantian and Schopenhauerian language at times, speaking of the “intelligible character” of the world, *i.e.*, the world “seen from within”.⁵ Zarathustra is described as willing to see “the ground of all things” and the ultimate ground.⁶ The other thing is the

¹ *Will to Power*, § 567; cf. §§ 481, 605.

² Cf. *Dawn of Day*, § 483; *Joyful Science*, § 249; *Beyond Good and Evil*, § 3; *Will to Power*, § 12 (B).

³ *Joyful Science*, § 374.

⁴ *Will to Power*, § 583 (A).

⁵ *Beyond Good and Evil*, § 386. In *Will to Power*, § 516, the question is raised whether the axioms of logic are adequate to the real or can even give us the idea of it.

⁶ *Zarathustra*, iii., 1. Cf. *Beyond Good and Evil*, § 12, where the new psychologist, after putting an end to superstition about the soul and fall-

practically constant recognition of an original mass or chaos of sensations. They are indeed our creation, but in response to stimuli—and the stimuli Nietzsche distinctly does *not* contemplate as self-generated.¹ They do not come from the outer world as we picture it, for this is an after-product of the sensations themselves; all the same we “receive” them and Nietzsche is inevitably driven to ask, whence?²

The idea of reality outside us is thus inexpugnable to him. What it is, what its constitution, is another matter. It is not this familiar world of common sense; it is not the world of atoms and denatured “forces” of popular science; nor is it the world of purely quantitative and mathematical relations of refined science. Still more, it is not a world of “things-in-themselves,” as this phrase is often bandied about by philosophical writers who think to refute Kant by showing that the idea of things out of any kind of relation is absurd; neither Kant nor any other realist worth mentioning has ever meant by independent reality *that*. Things are always in relation—and when conceived of (if they *can* be conceived of) as isolated, they are a pure invention of the mind, an illusion.³ Most emphatically it is not a world of pure and changeless being such as Schopenhauer dreamed of. Such “being” is the product of a mind ill at ease with the change and suffering in the world and conjuring up an order of things from which such features are absent, *i.e.*, it is the offspring of subjective need, and Nietzsche distrusts (at least for his own account) constructions that come from any other need or impulse than the theoretic or knowing one itself.⁴ Even moral needs are no safe basis for construction, not to speak of the needs of happiness, comfort, or inspiration.⁵

ing into a new desert and mistrust, is spoken of as at last learning to *invent*, and, who knows? perhaps to *find*.

¹ Prof. Raoul Richter (*Friedrich Nietzsche, Sein Leben und Sein Werk*, 2nd ed., 282) refers to a passage (*Werke*, xv., 295, of the original edition), in which Nietzsche speaks of our not receiving, but ourselves positing sense-perceptions. But the perceptions are to be distinguished from the stimuli (Reize) themselves—the former we produce, but the latter we receive.

² Cf. *Will to Power*, § 569 (the ambiguity in this passage turns about the term “things,” which Nietzsche, as we have already seen, regards as a subjective fiction; that we are to a certain extent passive and acted upon is implied throughout).

³ Nietzsche makes a running fire on both “things-in-themselves,” and “things,” sometimes misunderstanding the former himself (*Ibid.*, §§ 552-569; cf. § 473, *Joyful Science*, § 354).

⁴ Cf. *Will to Power*, §§ 708, 585, 576.

⁵ Cf. the reflections on Kant, *Ibid.*, § 410; on Hegel, *ibid.*, § 416; on philosophers in general, *Beyond Good and Evil*, § 6, *Will to*.

What is left, then? one may ask. There is evidence that Nietzsche was for a time in sore perplexity. The very extreme of scepticism and uncertainty as to both metaphysics and morals is pictured in "The Shadow" in *Thus Spake Zarathustra*—Nietzsche had been that shadow and had said to himself in bitter irony: "Nothing is true, everything is permitted".¹ There is nothing in things that we have not put into them, science, too, being this sort of child's play.² We can conceive only a world that we ourselves have made—if it appears logical, it is because we have logicised it.³ There are no facts, only interpretations; we cannot fix any fact in itself—perhaps it is absurd to wish to.⁴ We have no organ for knowing [in the strict theoretic sense, *erkennen*], we know ["*wissen*," *oder glauben oder bilden uns ein*] only what is useful for our human herd or species—and even as to this utility we only believe, cherish an imagination, and perhaps a stupid one with which we shall sometime perish.⁵ Such are some of the extreme expressions of his despairing mood. And it must be admitted that along the ordinary lines of objective search and analysis Nietzsche finds no way of meeting the scepticism. Though he has the general idea of objective reality, he cannot give any content to it. Though he recognises certain primitive data of sensation (or rather of stimulation), these data are so primitive, so far away from anything like our actual world in which data and interpretation are inextricably combined, that they might almost as properly be designated by an x or an interrogation mark as the original realities themselves. What Nietzsche really now does is to view the whole problem from a new angle. And here I pass to the fourth point:—

Power, § 412. As to needs of happiness, comfort and so forth, see *Ibid.*, §§ 425, 36, 171-172, 455; *Beyond Good and Evil*, § 210; *Genealogy*, etc., i., § 1; iii., § 24. Nietzsche even says that "the desirable" is a canon without meaning in relation to the world as a totality (*Will to Power*, §§ 709, 711). Nor are clearness and irrefutableness really standards of truth; that clearness should prove truth is perfect childishness (unclear ideas may be nearer truth) *Ibid.*, § 358; as to "irrefutable" views see *ibid.*, §§ 535, 541.

¹ *Zarathustra*, IV., ix.; cf. *Genealogy*, etc., iii., § 24; in *Will to Power*, § 598, the idea that there is no truth (called the nihilistic belief) is treated as a sort of recreation for one who is ever struggling for truth and finding it ugly—with the implication, then, that after the recreation one goes on in the struggle.

² *Will to Power*, § 606.

³ *Ibid.*, §§ 495, 521.

⁴ *Ibid.*, § 481; cf. §§ 603-604 (no fixed datum, everything being fluid, unseizable, what comes nearest permanence being our opinions).

⁵ *Joyful Science*, § 354.

IV.

Reality as power and will to power. Perhaps some of the steps by which he reached this conception, were these: (1) It came over him at times that his fellow-men were different from things in general. Thorough-going idealism is necessarily solipsistic. If we (each of us) think that nothing exists outside our sensations and thoughts, then our fellow-beings exist only in our sensations and thoughts, *i.e.*, have no independent being of their own; and though this might not matter greatly, so far as each other's bodies are concerned, every one would probably feel that to make his thinking or feeling dependent upon the thinking and feeling of another was absurd—indeed, no clear-headed person will assert that he feels another's feeling or can, or that another can feel his (we only reconstruct one another's feelings and feel them in imagination). Opposed as Nietzsche was in a general way to the idea of "another world," a "transcendent world," he came to see that, strictly speaking, other souls were themselves another world, a transcendent world, and he makes Zarathustra say so.¹ Once he formally argues the matter: "For a single man the [independent] reality of the world would be without probability, but for two it becomes probable. That is, the other man is an imagination of ours, entirely our "will," our "idea": and we are again the same in him. But because we know that he deceives himself about us [in thinking that we are simply his imagination] and that we are a reality despite the phantom-picture of us which he carries in his head, we conclude that he too is a reality despite our imagination of him: in short, that realities outside us exist."² (2) Another line of reflection came to him: Although distinguishing absolutely between "true" and "false" in the world at large is a difficult and perhaps impossible thing, setting up an end ourselves and trying to make things go that way is another matter—and yet just this is what every strong man does to a greater or lesser extent, indeed what practically every one tries to do.³ The very arranging, classifying, interpreting, valuing of the world and of things in it, about the objective validity of which Nietzsche is in doubt, is an incident to this end. The most wonderful of all things is not the world in its mystery, or the truths or values about which we dispute, but what is immediate and best proved, our own willing, valuing, creative

¹ *Zarathustra*, I., iii. ; III., xii., § 4 ; xiii., § 2.

² *Werke*, xi., 180, § 68.

³ *Cf. Will to Power*, § 605.

selves.¹ The extraordinary turn is accordingly made that the factor the action of which breeds scepticism as to our possession of objective truth, *viz.*, our will to power, and exercise of it, is that about which scepticism is impossible; the very changing of things which it works, a change so complete that we hardly know whether any of the original lineaments of things are left, is a proof of its reality.²

Here then is something to start with. Nietzsche feels this power in himself and thinks that it is really the bottom thing in him; and as he is not solipsist, he thinks that there are similar centres of power in other men. And turning his thought to the world at large, the idea occurs to him, may not animals and plants and even insensate things be centres of power in varying measures and ways? May not the world in its real being be made up, not of "things," substances, subjects, egos, atoms, causes and effects, spatial quantities and movements, but of these centres of power more or less conflicting and struggling with one another?³ Each being a will to power seeks to prevail, and is only prevented by others that want to do the same; each estimates all that is outside from its own standpoint, and to the extent it is conscious, builds up a world accordingly—images, concepts, categories and all; each is real and its created world is real (at least, till another centre of power puts an end to one or the other or both), and this is what and all that reality means.⁴ The question as to

¹ *Zarathustra*, I., iii.

² "The 'falseness' in things is to be explained as result of our creative force!" (*Werke*, xiv., 269, § 39).

³ Cf. *Will to Power*, § 635 (not things, but dynamic quantities, in relations of tension to one another, their essence consisting in the relations, in the mutual interaction). Cf. Prof. August Dorner's happy statement, "in this actual world there are no individuals, no species, and, strictly speaking, also no wills, but only actions and reactions, centres of action and reaction, and the word 'world' signifies only the total aspect of these actions" (*Pessimismus, Nietzsche und Naturalismus*, p. 137).

⁴ Cf. the striking summary paragraph, *Will to Power*, § 567: each centre of force has its perspective for the rest of the world, *i.e.*, its quite definite valuation, and its way of acting and resisting. The "apparent world" reduces itself to specific sorts of action proceeding from such centres. The "world" is only a word for the total play of such actions. *Reality* consists in just this particular sort of action and reaction of each individual to the whole. There hence remains no shadow of right to speak hero of *appearance*. There is no "other," no "true," no essential being—therewith would be designated a world *without* action and reaction. The contrast between the apparent and the "true" world becomes accordingly a contrast between "world" and "nothing". Cf. also *ibid.*, § 708 (becoming is not appearance; it is perhaps the world of *being* that is appearance).

the truth of the estimates or images or concepts, save as it is a question of what each can make good or can successfully act by, is irrelevant and without meaning, since estimations, images, concepts only exist in relation to the power that creates them and seeks to effectuate itself by their aid. Sensations, or rather the stimuli to which we react with sensations, become then construable, as a part of the effect which some outside centre of power makes upon us—it is a kind of signal that another power is there. By the sensations, the memories we keep of them and the ordered picture of the world we draw up, we know a little better how to act in relation to these unseen friends or foes. It is, however, only in the initial semi-physical contact that we are in direct, first-hand relation to them, and our sensations themselves need not have the slightest resemblance to the original realities.¹

V.

Such is the construction which Nietzsche offers in its most general terms. It is an hypothesis purely—he so speaks of it.² To take it as a dogma is to misconceive it and miss its value (whatever value it has). It is something to mull over—and then to accept or no according as it appears to cover the ground and meet theoretic requirements. (*Other requirements have to be left out of account by one who takes up the problem in Nietzsche's spirit.*) I shall be content in what follows if I can make the hypothesis reasonably clear.

In the first place, the “will to power” is a theoretic proposition. By many it is taken as an ethical standard (and rather a brutal one); but primarily it is with Nietzsche an

¹ Cf. *Will to Power*, § 569. By will Nietzsche means not so much a fixed entity or faculty, as a moving point—he speaks of “*Willens-Punktationen*” that continually increase or lose their power (*Ibid.*, § 715). Again, though a *who* that feels pleasure and wills power (*i.e.*, a single subject) is not necessary, there must be contrasts, oppositions, and so relative unities (*ibid.*, § 693). When Nietzsche rejects will as illusion (*cf. Beyond Good and Evil*, § 19), Prof. Richter remarks that he has in mind the *consciously aiming will* conceived as something simple (*op. cit.*, p. 225). On the other hand, Nietzsche uses will distinctly in the sense of something that selects and accomplishes (*Will to Power*, § 662), and expressly dissents from Schopenhauer's view of the will as desire and impulse merely—will, he says, deals with ordinary impulses as their master (*ibid.*, §§ 84, 95, 260, 668). Still he does occasionally speak of will to power as desire (*ibid.*, § 619). Ultimately it is neither a being or a becoming, but a *pathos*—from which a becoming or an action results (*ibid.*, § 635; *cf. Werke*, xiii., 210, § 483).

² *Will to Power*, § 869.

analysis or interpretation of reality—a theory as to its last elements.¹ Secondly, it is manifest that it is not merely power on a physical level that is in his mind; indeed, it may be questioned whether the discovery that instincts of power lie behind a large range of *mental* operations and also play an important part in the varying *moralties* of men, did not contribute as much to the formulation of Nietzsche's doctrine as anything else. Further, the view is relatively new in his intellectual history. It is, in a sense, a metaphysical view and stands in contrast with the purely critical and positivistic attitude of his middle period. Then he had spoken of the idea that will is the essence of things as "primitive mythology;"² now he is ready to argue from analogy, and frankly takes man as his starting-point.³ One might almost call it a return to the metaphysics of his first period, except that now he is less assured of the subjectivity of space and time (time at least he asserts to be objective) and the will is many, not one—the Primal Will (*Urville*), that eases itself of its pain by looking at itself objectively and so creating the world, being left out of account. The view might be described as Pluralistic Voluntarism.⁴ The question of the

¹ Nietzsche's projected book had originally as its full title *Der Wille zur Macht, eine Auslegung alles Geschehens* (*Werke*, Pock. ed., IX., xiii.).

² I am compelled to borrow here from Riehl (*op. cit.*, p. 60). Indeed Nietzsche still says that the view that every object seen from within is a subject, belongs to the past (*Will to Power*, § 474; he probably means a *conscious* subject, or else uses subject in the technical sense already criticised). On the other hand, in *Ibid.*, § 658, he speaks of "thinking, feeling, willing in all that lives," and in *Zarathustra*, IV., xi., he comes near popular animism in speaking of the pine tree as reaching after power, commanding, victorious, etc.—though the language is poetical.

³ *Will to Power*, § 619.

⁴ Julius Bahnsen, an early follower of Schopenhauer, seems to have had a similar view, reality being taken by him as "a living antagonism of mutually crossing forces or acts of will (*Der Widerspruch*, i., 436). The term "Voluntarism," Rudolf Eisler says, was first used by Ferdinand Tönnies in 1883, Paulsen in 1892 having brought it into currency (*zur Geltung*); cf. Eisler's *Wörterbuch der philosophischen Begriffe*, art., "Voluntarismus". Wundt's view, as stated by Prof. O. Külpe (*Die Philosophie der Gegenwart in Deutschland*, 3rd. ed., pp. 102-103), and also the reasoning by which he arrives at it, are in general like Nietzsche's: "All ideas (*Vorstellungen*) of objects rest on an effect that the will experiences; it suffers in that it is affected, and it is [in turn] active in that the suffering stirs it to an idea-producing activity. The object, however, that affects the ego is in itself unknown. We can only infer from our experience that what causes (*erregt*) suffering must itself be acting. Since there is absolutely no other activity known to us than that of our will, we can trace our suffering back only to some foreign will, and so what happens in general to the reciprocal action of different wills. The world may therefore be interpreted as the totality of will-activities, which in the course of their determination of one another . . . come to

origin of the many wills is not even raised—so that, if Schopenhauer's system is metaphysics in the second or highest degree, Nietzsche's is so only in the first;¹ still it is metaphysics so far as this means a transcending of experience and the phenomenal realm in general. Certain positivist writers regard Nietzsche as going backward—reversing in his procedure Comte's law of the three stages.²

The starting point is, as I have said, man. The bottom thing in him is his impulsive, willing nature. Each impulse, indeed, would rule if it could—the human problem being to establish an order of rank or precedence between them. Mind itself is of a commanding nature—wants to rule.³ Philosophy, which seeks to arrange, grasp, comprehend the world and establish values in it, is the most sublimated form of the will to power.⁴ One who thinks that philosophy has nothing to do with power should grapple with a philosophical problem, or with Nietzsche himself—and he will soon see whether power is needed. Nietzsche regards the philosopher as pre-eminently an establissher of values. The scientific specialist is a tool—a precious one, one of the most precious that exists; but his place is in the hands of one more powerful than he, who uses him—the philosopher. The philosopher is the Cæsarian trainer and strong man of culture.⁵ The saint is interpreted in similar terms. He is commonly thought to turn his back on power, but he is a supreme type of power, and of the will to it, according to Nietzsche. He is revered by the mightiest—why? Because, Nietzsche answers, they feel in presence of one of their own kind—whose power, however, turns inward rather than outward.⁶ Even love is an exercise of power, to Nietzsche—it gives the highest feeling of power; and Jesus, in telling his disciples to call no one master, really recommended a very proud life under the form of a poor and serving one.⁷ Nietzsche thinks that the sense of power is what in varying form we all crave, that the love of power is a central, universal instinct: he defines psychology as a doctrine of the development of the will to power and of the forms it takes.⁸ Such is his analysis of human nature.

arrange themselves in a developmental series of will-unities of varied content."

¹ This is the distinction made by Richter, *op. cit.*, 283.

² Zoccoli, Lasserre and others, as reported by Mügge, *Friedrich Nietzsche: His Life and Work* (3rd. ed.), p. 316.

³ *Beyond Good and Evil*, §§ 6, 230.

⁴ *Ibid.*, §§ 9, 211.

⁵ *Ibid.*, § 207.

⁶ Cf. *ibid.*, § 51.

⁷ *Will to Power*, §§ 176, 169.

⁸ "Morphologie und Entwicklungslehre des Willens zur Macht" (*Beyond Good and Evil*, § 23).

But the driving force in us, Nietzsche thinks he sees traces of, though in simpler form, in the lower ranges of life. Indeed in us it is something more elemental than conscious choice or than consciousness itself. It *becomes* conscious on occasion, but itself lies deeper, and in a more or less unconscious form Nietzsche imagines that it exists in animals and plants, and indeed wherever there is activity.¹ He does not attempt to demonstrate this inference—he attempts no *demonstration* even of the primacy of will in man, he has not unsaid his old criticism of Schopenhauer to the effect that we have no real first-hand knowledge of will:² it is all, whether as regards man or as regards lower beings, hypothesis, a view without pretence to certainty, speculation, as perhaps any kind of metaphysics must be.

VI.

Let me give the interpretation in still further detail—beginning with the lowest forms of existence.³ Physical motion, for example, is a subjective phenomenon—an alteration in our sensations: the reality in the case is a change in the relations of two or more centres of power—a change that is

¹ If we bear this in mind, we may to a certain extent explain Nietzsche's apparently contradictory views as to the place of conscious will in man (and in the world in general). He uses "will" sometimes in the sense of conscious will, in which sense it is not universal or elementary (*cf. Dawn of Day*, § 124), but again as practically identical with natural forces, the urge and inner ground of all life and activity. Consciousness has little part in physiological adaptations and organisation—it is a fitful, broken, atomistic thing at best and more a resultant than a cause (*cf. Will to Power*, §§ 523, 526). It comes when there is need of it, and is used by forces that may in turn dispense with it when it has done its work. It is these deeper forces that are will proper (*i.e.*, something commanding, imperative, bent on rule), the same in nature as in man. I do not mean that considerations of this course meet all difficulties: some of his contradictions are perhaps incapable of resolution, *e.g.*, that between a mechanistic and a teleological view of life. Nietzsche is now inclined in one way and now in another (*cf. Werke*, xiv., 353, § 215, with *Beyond Good and Evil*, § 36; *Werke*, xiii., 170, § 392; *Will to Power*, § 712). Still his drift as a whole, and indeed the particular significance of his doctrine of will to power, are anti-mechanistic. In *ibid.*, § 712, he almost suggests the Bergsonian view, "Absolute exclusion of mechanism and matter: both only forms of expression for the lower stages, the least spiritual shape that the will to power takes" ("die entgeistigste Form des Affekts, des 'Willens zur Macht'"). Had Nietzsche lived, he might have produced an articulated view to this effect.

² He rather reasserts it (*ibid.*, §§ 475-478). Richter, *op. cit.*, 274, comments on the difficulty presented by these varying views.

³ *Cf.* the language of *ibid.*, § 712.

symbolically revealed to us, being translated into the sign-language of eye and touch.¹ The world of mechanics in general is sign-language [unmeaning and unexistent apart from us or beings like us] for will-quanta struggling with one another, some perhaps temporarily overcoming [which are real, quite independent of us].² The unintelligible forces, attractions and repulsions that physicists speak of now get some meaning, construed as kindred impulses in ourselves; they reach out to control or they repel foreign control much as we do.³ The same may be said of chemical action and reaction, which are always of a specific character—the element of preference or choice (according to the nature of the elements in question) cannot be left out of account in explaining them.⁴ “Qualities” are the expression [sensations in us] of definite kinds of action and reaction, and Nietzsche suggests that quantity may be the outcome of quality (of the objective counterpart of quality)—the centre of power wishing to become more, to grow, to attain greater size.⁵ Causality appears in a new light. How, we ask, *can* two contrasted things, such as mind or will in us and an object outside us, affect one another? Nietzsche’s view makes them fundamentally alike—will acts on will everywhere, not on something foreign to it.⁶ Moreover, causality is not so much a relation of succession, as a working in and upon one another of two powers or wills, with its natural and inevitable result, either of a compromise, or of conquest on one side and subjection on the other. There is no cause and effect in the sense of an antecedent and consequent, nor is there a transference of energy from one thing to another, but rather a measuring up of forces against one another and a result—and this is why cause and effect, as ordinarily conceived, are rated a fiction, equally with “substance,” “atom” and the rest.⁷ Further, the ordinary idea of causality is of an unending process of change: an effect once reached becomes the cause of another effect and so on. But why, Nietzsche asks, need this be so, *why* might not a state once reached

¹ *Will to Power*, §§ 625, 634, 689 (motion eine Bilderrede, mechanics eine blosse Semiotik).

² *Ibid.*, § 689.

³ *Ibid.*, § 619.

⁴ *Ibid.*, § 636.

⁵ *Ibid.*, § 564. §§ 563 and 565 derive quality from differences of quantity—an apparent contradiction, only obviated in case “quality” here signifies something different, namely a more or less æsthetic valuation, a human idiosyncrasy. It must be remembered that *Will to Power* is made up of notes and memoranda merely, and that these are arranged, and more or less arbitrarily arranged, by the compiler.

⁶ *Beyond Good and Evil*, § 36; *Will to Power*, §§ 490, 554, 658.

⁷ *Ibid.*, §§ 631, 338, 617.

continue indefinitely, why would not the impulse of self-preservation itself tend that way—why, unless aside from self-preservation, there is an instinct in every living thing to be more and greater, to expand and enlarge itself, in short an instinct for power and domination?¹

Peculiarly interesting is the revision of biological notions that ensues. Mere self-preservation is not the life-instinct proper.² The will of living creatures is a special case of will to power. It is a will, however, not only to dominate (this all power strives for), but to dominate by incorporating, by making the foreign substance of power an integral, though subordinate, part of itself.³ This is manifest in hunger and the over acts of seizure—the living thing perhaps takes more than it can actually appropriate.⁴ Exploiting, stealing belongs thus to its nature. Accordingly life is radically misconceived when it is taken as mere adaptation to environment; “adaptation” is something secondary—is reaction, while life is action, activity itself (self-activity, one might say, though Nietzsche does not use the phrase—he does say “spontaneous” activity)—activity positive, aggressing, an “attacking, encroaching, freshly-interpreting, freshly-directing and shaping” force.⁵ To be controlled by outer conditions, or mere accommodation to them, is, for Nietzsche, a sign of decadence—he thinks that Darwin and Spencer both overvalue outer conditions in their view of life.⁶ Indeed, as he conceives the matter, life *wants* opposing outside forces—wants them to feel its power over them. In this way he interprets the pseudopodia of lower forms of life: the living substance is reaching out after something *on which to expend its power*, and appropriation is merely the consequence.⁷ And when it takes in more than it can really

¹ *Will to Power*, § 688.

² *Beyond Good and Evil*, § 13; *Will to Power*, §§ 650-651.

³ *Ibid.*, § 681.

⁴ Hunger to merely replace what has been lost Nietzsche puts in a secondary place (*ibid.*, §§ 651-652, 656).

⁵ *Genealogy*, etc., ii., § 12.

⁶ Cf. *Will to Power*, §§ 44, 49, 70, 71, 681; *Werke*, xiv., 215, §§ 432-433; *Will to Power*, § 647. This does not mean that Nietzsche did not recognise the influence of environment—cf. as to the shaping of races, *Werke*, xiv., 233, § 787. All the same, “the psychology of these M. Flauberts is in summa false: they see always simply the action of the outer world and the ego being formed (quite as Taine ?),—they know only the weak in will, in whom desire takes the place of will” (*ibid.*, xiv., 199, § 391). Again, “The theory of environment, new the Parisian theory *par excellence*, is itself a proof of a fateful disgregation of personality” (*ibid.*, xiv., 215, § 434). Cf. Derner’s comment, *op. cit.*, p. 139.

⁷ *Will to Power*, §§ 656, 702, 694.

control it proceeds to divide itself—as two, it can still control. There is, however, no “altruism” in the process. As “nourishment” is something secondary, the original impulse being simply the will to close in on whatever is at hand, so self-division or propagation is equally derived—where one will does not suffice to organise what has been appropriated, another arises.¹ Structure, organisation, is another result: it is necessary to the end of disposing of what has been appropriated—its meaning is in arranging, ordering, putting in place to the end of dominance and use.² Incident to all life is power that commands and power that obeys—whatever does not command must obey, *i.e.*, be used, become subservient.³ Here is the foundation for the distinction between means and end in an organism. The superior power overcomes the lesser, incorporates it, gives it its place, making it a means to its own end.⁴ Hence the definition of an organ—something that would otherwise be independent is turned into a means, an instrumentality. For example, something that happens to be more or less suitable becomes an eye for the organism, something else a foot or hand, something else still apparatus for digestion and so on; they may not have been formed for these purposes, but the superior power turns them to account in these ways,⁵ just as one man may make others his slaves or as the state may convert this or that individual into a tool or agent.⁶ Wherever we find a thing that serves a purpose and is useful, “a will to power has made itself master of something less powerful, and of its own motion has stamped the meaning of a function upon it”.⁷

¹ *Will to Power*, §§ 653-657. In *ibid.*, § 680, the sexual instinct is viewed as an expression of the strength or power of an individual, his maximal expression of power (rather than simply as a necessity for the race), which is superficially inconsistent with the view of propagation as the result of limited power in *ibid.*, § 654.

² *Ibid.*, § 642.

³ *Ibid.*, § 492; cf. *Zarathustra*, II., xii.

⁴ *Will to Power*, § 552.

⁵ Nietzsche says as against Darwinism that the utility of an organ does not explain its rise, for, during the greater part of the time it was forming, it may not have tended to preserve the individual or been useful to him, least of all in the struggle with outer conditions and enemies, *ibid.*, § 647; cf. *Genealogy*, etc., ii., § 12, where it is explained that the origin of a thing may have nothing to do with the use to which it is put by a superior power.

⁶ There is no mechanical necessity in the relation of the parts of an organism—much may be commanded that cannot be fully performed: hence strain, *e.g.*, of the stomach (*Werke*, xiii., 170, § 392; cf. 172, § 394).

⁷ *Genealogy*, etc., ii., § 12 (this holds good of a legal institution, a social custom, a political practice, a religious form, or an eye or a hand).

If we do not read the organic world in terms of power, *i.e.*, of controller and controlled, of master and servant, there is little sense in speaking of organs, functions. All language about the "meaning" of a thing implies that a superior power has given it a meaning, *i.e.*, got control of it and assigned it a place in relation to its own ends. As already said, this meaning may have nothing to do with its origin or essence—a thing may in the course of time have various meanings, depending on the nature of the power that gets control of it. Accordingly, the "evolution" of a thing (whether an organ of a body or a custom of society) is by no means necessarily progress toward a goal prefigured in its nature, still less a logical movement along the shortest lines and accomplished with the least expenditure of force, but rather a succession of processes of subjugation which it undergoes, the changes going more or less deep and having no necessary connexion with one another—to which may be added its own resistances, attempts at change of form in self-defence and any successes it may win. The form [of the organ or custom] changes, flows, and the "meaning," purpose, still more so. Even in an individual organism, it is not otherwise: with every essential growth of the whole, the "meaning" of single parts shifts also—under given conditions, a partial perishing of some, a reduction in the number of others (for example, an elimination of intermediate organs) may be proof of the growing power and perfection of the whole. In other words, degeneration, losing of meaning and purpose, or death, may belong to the conditions of actual progress—something that ever appears in the form of a will and way to greater power and is accomplished at the expense of numberless lesser powers. The greatness of an advance may, indeed, be measured by the amount of what is sacrificed to it. For example, the mass of mankind sacrificed to the growth of a single, higher, stronger species of man—that would be an advance.¹

This relation of controller and controlled in any form of organic life involves what Nietzsche calls an order of rank (*Rangordnung*). It is a conception that plays a great part in his social speculations; but it originates in the general biological field.² The human body itself involves an order of rank; there are higher and lower in it, ends and means—it is teleologically constituted, though the teleology comes not from God or from a vague thing called Nature, but is established by the supreme controlling force in the body

¹ *Genealogy*, ii., § 12.

² *Will to Power*, § 552.

itself: Nietzsche speaks of the "lower world" there and of "the higher functions and functionaries for ruling, anticipating, predetermining,"—for "our organism is oligarchically arranged".¹ The mind is a part of the ruling, determining forces, and an instrument for accomplishing that on which they are bent. Every centre of power in a sense measures and estimates other power outside it, but when this is done in clear consciousness, the measuring may be surer and more effective.² In the development of mind and consciousness, the need of communication between those with common interests plays an important part. Mind grows in intercourse and with reference to the needs of intercourse—hence indeed the limitations of consciousness as well: we see the general, the communicable with greater distinctness than the altogether individual and specific (*i.e.*, our individual experience, which may be incommunicable).³ But consciousness is not an end in itself, but a means to the heightening of power.⁴ Nietzsche even suggests that there may be an oligarchy in the mind itself, there being not necessarily *one* subject there, as we commonly think, but several, the play and struggle between them making the hidden basis of our thinking and consciousness—or, to use the physical terms, that there may be an aristocracy of cells, with vassals more or less obedient.⁵

Nietzsche has interesting reflections on will to power as involving pleasure and pain—pleasure resting on the increase of power, pain consisting in the feeling of weakness⁶—but I must merely refer to them.

¹ *Genealogy, etc.*, ii., § 1.

² On consciousness as a tool, *cf. Will to Power*, §§ 643-644, 646.

³ *Joyful Science*, § 354; *cf. Will to Power*, §§ 569, 524.

⁴ *Ibid.*, § 711, "not 'increase of consciousness,' but heightening of power is the end," which may possibly be directed against Fouillée, who also put will at the basis of things, but "will for consciousness," according to A. Lalande (*Philosophical Review*, May, 1912, p. 204).

⁵ *Will to Power*, 490, 492.

⁶ *Ibid.*, § 693, *cf. §§ 428, 657, 670*. Pleasure rests on pain, being the sense of an obstacle overcome. If the pleasure is to be great, the pain must be long, the tension of the bow extreme (*ibid.*, § 658; *cf. §§ 661, 694, 699*—pain, while different from pleasure, is not just its opposite). Hence in will to pleasure is involved will to pain (*ibid.*, § 695). Nietzsche also emphasises the intellectual element in pleasure and pain in general (*ibid.*, §§ 490, 505, 669); he even goes so far as to say, "in itself there is no pain" (*ibid.*, § 699). Schopenhauer had asserted the relativity of pain, but to the will (not necessarily to the intellect). Nietzsche does not think that pleasure and pain cause anything, they being merely accompaniments [of reactive processes] (*ibid.*, § 478). In accordance with this general view of the nature and necessity of pain, is a remark to the effect that the simple unsatisfaction of our im-

Will to power also lies behind thought or philosophy, as already explained. It too is a kind of appropriation, mastery. Thinking is only a sublimated action of the same forces manifested in the amoeba. Man seeks to turn all that is into something like himself, to make it thinkable, visible, feelable—he subjects it to categories and turns it into his own substance, as the amoeba does foreign material into its own body.¹

There is only one higher expression of the will to power and that is in the saint (in the nobler meaning of the term), the hero-saint, who does not turn his back on the world, but impresses the image of his highest thought upon it and transforms it—who knows, thinks, only to love and in love to act, to create.²

So does Nietzsche interpret the whole gamut of things in terms of power and will to it.

pulses (hunger, sex, or the impulse to move) contains nothing to lower our pitch—works rather to stimulate us (*ibid.*, §§ 697, 702). There are two kinds of pain, one that acts as a stimulus to the sense of power, another that arises after the expenditure of power; and to these correspond two kinds of pleasure, one such as we have in going to sleep in a state of exhaustion, the other being the pleasure of victory (*ibid.*, § 703).

¹ *Zarathustra*, II., ii., *cf.* xii.; *Will to Power*, §§ 501, 510-511. Nietzsche speaks of "thinking" [*i.e.*, the equivalent of our thinking] in the pre-organic world as an enforcing of forms, as in the case of the crystal. In our thinking the essential thing is the putting of new material into old schemata (= Procrustes bed), equalising the new (*ibid.*, § 499).

² *Cf.* Nietzsche's own statement: "To become artist (creating), saint (loving) and philosopher (knowing) in one person—my practical aim" (*Werke*, xii., 213, § 448). The passage is perhaps reminiscent of his early aspiration, but this changed in form more than in substance. He does indeed say in *Ecce Homo* (Pref. § 2), that he is a disciple of Dionysus and would rather be a satyr than a saint, but he means by "saint" here one who turns his back on life. Even asceticism Nietzsche did not altogether discountenance, but the sort he favoured was in the interests of life, not against it. Those whom he regards as the supreme type of men practise this kind of asceticism and find their pleasure in it (*The Anti-Christian*, § 57). In speaking of the future "lords of the earth" (who are to replace God for men and win the unconditional confidence of the ruled), he emphasizes first "their new sanctity (Heiligkeit), their renunciation of happiness and comfort" (*Werke*, Pock. ed., vii., 486, § 36). Purity and renunciation (of some kind) are the essential elements in the concept of the saint (*cf.* the sympathetic portrayal of the saint as representing the highest instinct of purity in *Beyond Good and Evil*, § 271, also *Genealogy*, etc., i., § 6).

II.—WHAT DO WE MEAN BY THE QUESTION: IS OUR SPACE EUCLIDEAN?

BY C. D. BROAD.

EVER since the existence of Non-Euclidean geometry has been widely enough known to reach even philosophic circles philosophers have asked whether our space is Euclidean, and whether there is any means of finding out if it be not Euclidean. That ordinary philosophers should have disagreed in their answers to such questions as these is not surprising; they lacked the mathematical training needed for an intelligent discussion of the subject and many of them were sadly led astray by a popular article by Helmholtz. But it is more surprising that men like the late M. Poincaré and the living Mr. Bertrand Russell should come to quite opposite conclusions on these questions. Both are absolutely competent to appreciate all mathematical points involved; the former was a great mathematician and a respectable philosopher, the latter is an extremely competent mathematician and an eminent philosopher. We must suspect then that their different answers are due to some ambiguity in the question. In this paper I am going to try and clear up some of these ambiguities; and, when this has been done, we may find a probable answer to the above questions.

Obviously the first point to clear up is what is meant by the phrase 'our space'. Until we know precisely what we mean by 'our space' it is useless to ask any further questions about it. The phrase is a peculiar one; it seems to suggest that we have a space of our own as we have a latchkey or as Trinity College has a hall. And this suggests that there may be other spaces owned by other people, just as other people have latchkeys and other colleges have halls. Now in a certain sense it is true that each of us has a private space peculiar to himself and as unique as his latchkey. Such spaces may be called perceptual spaces. We must inquire first what is meant by a private perceptual space.

To answer this question we need to go a little further back and ask what is meant by *a* space. There is of course an ambiguity in this question. In one sense *a* space is any closed piece of extension. In this sense we should call the Great Court of Trinity *a* space. But this is not what is meant in the present question. What is meant is this. Mathematicians talk of Euclidean, and hyperbolic spaces, and now we are beginning to talk about private perceptual spaces; here we are using space as a general term of which there are different particular instances, just as we use nation as a general term and then distinguish between the English, the French, and the German nations. So the question is: What must all kinds of spaces have in common in order that the common name space may be appropriate to them? I think when we talk of a space we assume the following things. We assume a class of entities which we call points and we assume certain kinds of relations between them and other relations which only relate certain selections of them. Thus a straight line in any space is a certain selection of the points in that space which are related to each other in a certain way and are not related to other points of the space in this way. Similar remarks apply to planes and to other curves and surfaces in the space. The relations and the important kinds of subclasses of related points in the space are or should be named and defined in the definitions of the geometry in question. The axioms will tell you the relations that must be assumed between these primary relations and subclasses. Thus the axiom that two straight lines cannot inclose a space in Euclidean geometry tells you that in that geometry any two subclasses of related points which agree with the Euclidean definition of a straight line will either have one point or none in common. But at present it is important for us to notice that there is something further which does *not* explicitly appear in the definitions, axioms, and postulates of any system of geometry. This is the fact that we certainly draw a distinction between space and matter which is in space. Of course points are unextended, whilst all bits of matter are supposed to have some extension though it may often be an imperceptible one. Thus any bit of matter corresponds to an infinite number of points of the space in which it is supposed to be. But this is not the most important distinction. Matter is supposed to be capable of moving about, and, if we talk of a piece of matter as being in a certain kind of space we say that it moves about in this space. But we cannot say that points of space move about. What precisely does this dis-

inction come to? It comes to this. If we mean to distinguish space from matter we must suppose that pieces of matter are related in a certain peculiar way to points of space. The relation itself is not a simple one. It involves space and matter and time. We say that a piece of matter is at a certain place at a certain time. This means that if we imagine the matter divided up into material unextended points each of them will be at one definite point of space at a certain moment of time. When we say that the piece of matter moves we mean that at a second moment some of its material points are at different spatial points from the ones at which they were at the first moment. We must for completeness distinguish between movements of translation, movements of rotation, dilatations and deformations. It is not important for our present purpose to go into the question of how these are distinguished. Now suppose there be two pieces of matter in the space in question. On the view that there is such a thing as space, that it is distinct from matter, and that matter is in space, we must next carefully distinguish two different kinds of spatial relations which are called by the same name and are liable to be confused. The first kind are the relations between bits of matter; as when we say that Cambridge is sixty miles N.E. of London. The second is the relation between points of space as when we say that the place where Cambridge is is sixty miles N.E. of the place where London is. But this distinction is only a rough first approximation to the distinctions that we must finally make if we are to be in earnest with our view that matter is in space. You obviously cannot talk strictly of the distances between Cambridge and London because various parts of Cambridge are at different distances and in different positions relative to various parts of London. Thus the distinction that we have ultimately to recognise is that between the relation of a definite material point in the mass of matter which we call Cambridge to some other definite material point in the mass of matter which we call London and the mutual relation of the geometrical points *at* which these material points are situated. Now to a person who is in earnest with the notion of space there is an important difference between the two kinds of relations. The spatial relation between two material points is not a simple or ultimate thing. It is compounded of the relation between the two geometrical points at which the material points are situated and the relation which each of the material points has to the geometrical point at a given moment. The statement 'the material point A is twelve miles to the S.W. of

the material point B at the moment t' means 'the material point A is at the geometrical point a at t and the material point B is at the geometrical point β at t and the geometrical point a is eternally twelve miles S.W. of the geometrical point β .'

This shows us an important distinction between the spatial relations of material points and the similarly named relations between spatial points. The relations between material points may alter with time, those between spatial points are essentially timeless. You can say that A was twelve miles S.W. of B at t_1 and two miles N.E. of it at t_2 , but this does not imply that any change has taken place in the relations of the geometrical points a and β . It only means that A or B or both of them have ceased to be at the geometrical points a and β and have come to be at other points a^1 and β^1 which have and always have had the relation that a^1 is two miles N.E. of β^1 . It is then of the very essence of the notion of space as distinct from matter that points of space and their geometrical relations are timeless, and that the spatial relations of material points can alter in time owing to the fact that two material points can at different times be at different geometrical points without making any difference to the spatial relation of these geometrical points to each other. If this distinction be forgotten it is impossible to make any clear separation of matter and space. This is of great importance because it cuts out at once certain suggestions of extremely empiricist mathematicians like Clifford, that the space-constant of our space may vary with time and that this may explain certain physical phenomena. Any one who takes such a view as this may be invited to tell us how he distinguishes space from matter and whether he is really doing more than ascribing certain variable qualities to some pervasive medium like the ether.

A further question now arises. Granted that it is a part of what we mean by space as distinct from matter that it shall not vary with time is it also a part of its meaning that it shall be homogeneous? Is it compatible with the notion of space that its measure of curvature though independent of time may vary from place to place? I think not. It is incompatible with our notion of space that absolute position in space should be relevant in any physical law. If, for instance, bodies always changed their size and shape in certain definite ways as they were moved about we should feel it inappropriate to say that this was due merely to the change of their position in space. We should always assume physical causes for these physical changes. And I

may remark, we could never be proved to be wrong in doing this. When a finite body alters its position in absolute space this is never the *only* fact about it that alters. It *ipso facto* changes its relative positions to other bodies; hence any change in the body can always be referred to these changes of *relative* position, and this be given physical causes. A similar remark applies to absolute time. It is incompatible with the distinction between time and events in time that any causal law should contain absolute time; for this would mean that one antecedent in a causal law was not an event but a moment and so time would act on matter. But there can never arise the least necessity to employ causal laws which contain absolute time, for the following reason. The only ground that could make any one wish to do this would be if it were established that the universe had been in the same total state at two absolute moments t_1 and t_2 , and yet that its history between t_1 and t_2 differed from its history after t_2 . They would then be inclined to say: There is no difference in the antecedents of states that follow t_1 and states that follow t_2 on this hypothesis and yet these states differ. Hence they cannot be determined solely by antecedent *events*, but the absolute time at which a state happens must be relevant. But this is quite a mistake. It rests on supposing that, when the state of the universe at any *one* moment is given it ought to be determinate at any other moment; and this view itself rests on the false belief that the series of events is not continuous but that there are next moments. The fact is that the state of the universe at any moment may be a function of its states at several other moments. In that case the history of the world between t_1 and t_2 will be a function, not merely of its state at t_1 , but of this and some of its states before t_1 . The history of the world after t_2 will be a function of its state at t_2 and of some of its states before t_2 . The selection of states before t_1 needed to determine the history of the universe between t_1 and t_2 , need not be the same as the selection of states before t_2 needed to determine its history after t_2 . Hence the mere fact that the states at t_1 and t_2 are identical is no reason why the states between t_1 and t_2 should be identical with the corresponding ones after t_2 . Thus, if these corresponding states are not found to be identical, we still have no reason to suppose that they cannot be determined wholly by antecedent *states*, and therefore no reason to think that they involve any reference to absolute moments of time.

We thus reach the important conclusion that, if we mean to be in earnest with our distinction between space and matter

on the one hand and time and events on the other, we must lay down the following conditions for space and time. Space and time are not themselves in time, geometrical and temporal relations are eternal. The only thing that changes in motion is the relation of material points to geometrical points. Again space and time cannot be conceived as capable of causal action on matter. All laws about the changes of matter must simply contain the states of matter at one or more times, *relative* positions, and *differences* of time. They must not contain absolute positions or absolute moments. Space and time must therefore be conceived as homogeneous; they must not have different qualities at certain points or moments from what they have at other points or moments. And we have seen that experience can never force us to any other conclusion. Of course nothing that I have said lends support to the view of certain French philosophers who hold that we can decide at once in favour of Euclidean geometry because it allows of similar figures whilst hyperbolic and elliptic geometry do not. There is nothing incompatible with what I have said about the necessary qualities of space and time in the non-existence of similar figures. That there should be a certain constant relation between lengths of side and magnitudes of angles involves no causal action of space and time on matter, any more than in Euclidean geometry the fact that you could not make a triangle, whose angles were less than two right angles means that Euclidean space acts causally on matter. This relation is eternal and purely geometrical.

The reader will naturally have been wondering during this discussion what right I have to lay down in this confident way the properties that must and those that cannot belong to space and time. He will ask: Are they axioms and self-evident; or are they merely a question of definition? If they be merely a question of definition why should our definition be any better than one which Clifford might have made up for space which should allow space to have a measure of curvature variable with time? The answer to this question will help us a good deal towards a solution of our main problem.

The point to notice is that the distinction between space and matter is not something that we find, but something that we make—to use a somewhat unguarded expression which I will modify later. When I say that we do not find the distinction I mean two things. (1) We clearly do not directly perceive space and directly perceive matter and then compare them and find what are the characteristic

qualities of each. It is admitted on all hands that empty space is not perceptible at all, and it must further be admitted that if by matter you mean what physicists mean by matter *it* too is not directly perceptible. But (2) this is not all. Space and matter are not two definite things which are given together in experience and then separated out by analysis. When we hear a musical note we hear a complex unity; subsequent reflexion and comparison enable us to assert that in all notes will be found the two characteristics of pitch and loudness. I should then say that we analysed the two qualities of pitch and loudness out of a complex experienced object and can go on safely to describe the peculiar nature of these two qualities. But this is not the kind of procedure by which we reach the distinction between space and matter and become acquainted with the characteristic peculiarities of each. When we state that the proper interpretation of any relative motion is that of two pieces of matter one at least has come to occupy a new position in a changeless space it cannot be said that we are *merely* analysing a complex given in experience and finding what was in it all along. The whole scaffolding of a space of points in eternal geometrical relations to each other seems quite obviously not to be an element given to us confusedly in an experienced complex and clearly recognised by subsequent reflexion, but to be something added by us to the experienced facts. Of course it is not a case of *mere* addition. We do analyse what we experience into bodies and their relative positions and geometrical relations; but then we treat these bodies as complexes of material points correlated from time to time with various geometrical points whose mutual relations are eternal. The first part of the process is genuine analysis quite comparable to the discovery that a sound has both pitch and loudness; but the second part, the part that introduces space, is quite clearly not just a further analysis of the same kind. It is not a finding of what when found we recognise to have been there all the time; it is an addition made by us involving a special interpretation of the experienced facts.

If now you ask: Why should I accept precisely your definition between space and matter; is it an axiom or a definition or what? we are prepared to answer: Certainly it is not an axiom, but a matter of definition. But it is not arbitrary. The distinction of space and matter, the view that matter moves about in space whilst space remains eternally unchangeable, and the view that time and space do not act on matter:—these are the characteristics of a

certain way of describing the experienced facts. It is not the only possible way, but it is the way which common-sense and science have taken. So long as you talk about space at all you presuppose that this method of describing the facts has been adopted, and so long as you do this you must ascribe to space the qualities that I mentioned. To put it in another way. To talk of space and its qualities presupposes that space is something distinct from matter; hence it is useless to try and give space qualities which made it indistinguishable from matter. And a careful consideration of what we really do mean by space will show that we mean something that has the qualities and the relations to matter which I have described.

I must now try and state much more accurately what I meant when I said that space was something that *we* added to our experience and not something found by us. This sounds very subjective and Kantian, and I must make a number of distinctions to avoid misunderstanding. 1. ¹ I do *not* think that the shapes, sizes, motions, and spatial relations of perceived objects can in any sense be supplied by our minds; they are found and not made by us just as are colours, sounds, etc. 2. I do mean that, when we interpret relative motion in terms of absolute motion in space, the space and its qualities are neither (a) directly experienced like colours; nor (b) recognised to be present in what we experience by subsequent reflexion, as pitch and loudness are recognised to have been present in any sound; nor (c) reached by inference from what we do experience, as we reach the belief that there are light-waves from our experiences of colours. I will elaborate this last point a little further. It follows from the definition of absolute time and space that our reasons for believing in them can never be an inference from what we perceive such as we use in physics to support our beliefs in imperceptible objects like atoms and ether-waves. All these inferences in physics depend on the view that the inferred entities cause something in what we experience. Now it is part of the definition of space and time that they cause nothing; hence our belief in them cannot be supported by inference from what we directly experience. 3. It seems then that the interpretation of perceived spatial relations and perceived motions in terms of space must be something that we ourselves add to the facts. By this I do not mean that there may not be such a thing as a real geometrical space of

¹ I do not wish to deny that the *sensuous* peculiarity which distinguishes a felt corner from a seen corner may be mind-dependent. But it is no more so than any other sense-datum.

points in eternal relations, but that we have no reason for believing that there is such a space. It is one possible interpretation of observable facts, but it is rather a bizarre interpretation the elements of which are supplied by ourselves. How much of the interpretation is supplied by ourselves and what precisely this means are questions which I defer for the moment. At present we know enough about what is meant by space to be able to return with profit to the question what is meant by *our* space. The further working out of the answer to this problem will do much to clear up this deferred question.

We said that we could talk of private spaces and that these were found in perception. Psychologists talk of perceptual space and conceptual space, and contrast the two. But the distinction is not quite a happy one. To talk of a perceptual space suggests that it is a kind of space that can be perceived. But no kind of space can be perceived by the senses. What is true is that several of our senses, *e.g.*, those of touch and sight, make us aware of extended wholes in which we can distinguish parts in spatial relations to each other and in relative motion. For example, in sight we become aware of a total field of vision and can see in it visual objects in spatial relations to each other. Again by touch we become aware of tactual objects with various shapes and spatial relations and we may feel these moving about. But the object of sight and the object of touch are not themselves spaces. What would really be meant by a private visual space would be this. Suppose a man were to deal with all his visual experiences on the plan of constructing visual bodies and the space in which they move, the space having those characteristics which we have laid down for all spaces; then the space so constructed would be a private visual space. We must assume that the man takes no heed of any information that he gains from any other sense; the space is to be constructed so as to deal simply with the data of all his sight experiences on the general plan of distinguishing space from things in space. Similarly a private tactual space would be reached by a man who should deal with all the data given him by touch without reference to any other sense, according to the general plan of distinguishing space from matter which moves about in it. Thus to each private sense-space will correspond a special kind of thing: to sight-space will correspond visible things, to touch-space felt things.

We thus see that the distinction between perceptual and conceptual space is not a happy one. All spaces are conceptual in the sense that they are constructed in order to

deal with certain sets of experienced objects according to a certain definite plan; all spaces are perceptual in the sense that they are constructed to deal with the extended data of certain senses. But there is an important practical distinction between the private space of any sense in any person and what is commonly called conceptual space. The latter is constructed to deal consistently, according to the fundamental plan of distinguishing space and things in it, with the data of all senses in all people. But the private spaces of the special senses in particular people never have been constructed and perhaps could not be constructed at all. To construct such a space we should have to be sure, *e.g.*, that all the visible objects that we perceive with their visible movements can consistently be regarded as things moving about in a special space with the qualities that we have laid down for all spaces. Whether this could be done at all successfully is by no means certain; there is no *a priori* necessity why the data of each of our senses in abstraction from those of the others should be capable of being dealt with according to this plan; and it is quite certain that it has never been done by any one. We must therefore regard private perceptual spaces as at best constructions which *may* (but *may not*) be possible, and we can say with some confidence that, *if* they be possible, they are most unlikely to be Euclidean.

We are now very near the answer to our question: What do we mean by *our* space for the purpose in hand? We do not mean the private perceptual spaces of any one, for we do not even know whether such spaces be possible. We must mean a space so constructed as to enable us to deal with the data of all senses of all men. This is a rough general way of putting our answer; we must now try to refine it. Let us call this space physical space. The first thing to notice is that, though physical space is defined as a space constructed to enable us *to deal with* the data of all the senses of all men, yet it is not true that the data of any sense of any person are *in* physical space. If the data of any sense of any person be in space at all they are in the private space of that person appropriate to that sense. If there be no such things as private perceptual spaces then no one's sense-data are in any space at all, though of course they have spatial qualities, *i.e.* they are extended, move, and have spatial relations to each other. This apparently startling result arises from the close correlation of space and bodies; every special kind of space involves a special kind of bodies, for space and bodies are the two correlative elements involved in a certain definite way of dealing with an extended whole whose parts

have relative motions. The bodies that correspond to physical space are physical bodies ; these are not identical with what is perceived by any of our senses ; what I see and what you see at the same moment when we say that we are looking at the same body will have slightly different shapes ; the body that is supposed to be moving in physical space is not identical with what I see or with what you see, though it is correlated with the sense-data of both of us. The distinction between physical bodies moving in physical space and perceptible bodies moving in some private perceptual space if in a space at all is best seen in the case of dreams. In dreams we see things in various spatial arrangements moving about in various ways ; but we never suppose that they are in the same space as chairs and atoms ; if they move in a space at all it is in a dream-space appropriate to them. The reason why it is obvious that dream-objects are not in physical space and less obvious that sensible objects are not in physical space is that physical space has been constructed to deal with all or nearly all the objects perceived in waking life but not to deal with dream objects. It follows that there is a close correlation between physical objects and the objects of our senses in waking life, but that there is practically none between dream-objects and physical objects. We therefore have no temptation to think that the objects of dream perception are in physical space. We do not believe this even of the objects of certain sense-perceptions ; when we feel a huge hole in a tooth with the tip of our tongue we do not believe that a huge hole exists in any object in physical space. This is because physical space and physical bodies are only constructed to deal with certain important data of sight and touch and not with all perceptual data even of waking life. It is by no means certain that, if we tried to construct a space that should consistently deal with both the data of waking life and those of dreams or even with *all* the data of waking life, we could do it. Our total mass of perceptual data may very well not be susceptible of treatment according to the general plan which distinguishes matter and space.

I think there can now be little doubt as to what we mean by *our* space when we ask whether it is Euclidean. We mean the space of physics which has been constructed to deal consistently with most of the data of waking sight and touch in most people on the general plan of distinguishing space and matter and attributing to space the qualities that I have laid down. Now that we know what is meant by *our* space we can go on to discuss what is meant by asking

whether it is Euclidean. Three points arise for discussion. (1) Is this a sensible question? (2) If it has a meaning, is it capable of a single definite answer? and (3) If it be capable of a single definite answer in theory is there any practical way of finding the answer?

To answer these questions we must go more thoroughly than we have yet done into what is meant by saying that *we* construct space. This sounds very subjective. I have already pointed out that I do not mean by the phrase anything like the Kantian notion that the mind makes extension or spatial relations. It finds these just as it finds colours, sounds, etc. But I have only further described what I mean by construction in negative terms. I have argued that to say that we construct space involves at least the two negative propositions, (1) that we do not discover it by analysis of what we find given to the senses, and (2) that we do not infer it as something causally connected with what we perceive. I will now add a more positive determination of this much-abused word 'construction'. The best way to approach this subject is by considering the use of parameters in elementary mathematics. Thus in dealing with ellipses it is customary to introduce a certain angle such that $x = a \cos \phi$ and $y = b \sin \phi$. A closer analogy to construction in the sense in which I use the word is found in the introduction of the parameter θ in dealing with cycloids. We find it simpler to deal with cycloids on the assumption that they have all been generated by circles rolling on straight lines. The parameter θ represents the angle turned through by the circle from the beginning of its motion. Now it is quite clear (1) that not all cycloids really have been made by actual circles rolling on actual straight lines. The arches of Westminster Bridge are arcs of cycloids but they certainly were not made in this way. (2) It is also clear that it is quite irrelevant for all mathematical purposes whether any particular cycloid was actually produced in this way; we can always introduce the parameter θ and deal with cycloids by means of it no matter what is the physical history of any cycloid. Now what I want to suggest is that physical space and physical matter are, so far as we know, just parameters which are introduced when we deal with sensible experience according to a certain plan. Why we insist on dealing with sensible experience according to this plan is not obvious. If anything at all be left of Kant's intuitional theory of space I think it may reduce to this that we have an innate tendency to deal with sensible experience according to the plan of separating space and matter, ascribing to space the general qualities

that I have laid down, and conceiving matter as moving about in it. But I do not wish to insist on this suggestion. The more important point for us to notice is that actual experience has proved that the steady pursuit of this general plan of dealing with the sensible world has had very great success; we have by its means made this world and its changes more and more intelligible and predictable. But this does not prove that it is the only possible plan, or that there may not be a yet more successful alternative. Many alternative plans are suggested, *e.g.* by Dr. Whitehead in his paper on *Mathematical Concepts of a Material World*; and the modern theory of Relativity in Electrodynamics suggests that our old plan is not the best for dealing with all the facts.¹

Let us now return to our analogy between space and the parameter θ used in dealing with the cycloid. What is meant by asking: Is physical space real and is it Euclidean? If a man asked whether the parameter θ really exists he would mean: Did this particular physical cycloid originate through the rolling along a physical straight line of a physical circle provided with some arrangement for making a mark? In another sense the parameter θ is always real in the case of any real cycloid; for it is a definite function of magnitudes connected with this cycloid which can actually be measured. In no sense is the parameter θ subjective; it is not made by us arbitrarily; this function of the Cartesian co-ordinates of a cycloid exists whether we notice it or not, and the only subjective part of the whole business is our determination for purposes of our own to denote this function by a definite letter and to deal with it explicitly. Let us apply this analogy to space. What is meant by asking whether space is real? As with the question about the parameter θ the question is ambiguous. It may mean (1) Are the points of physical space of the same logical type as particular sense-data? Sense-data are particulars, not classes or relations. The question thus means: Are the points of physical space particulars like sense-data or are they classes or classes of classes or relations? The second meaning of the question is: Can all observable movements be stated as functions of physical bodies with the qualities that have been ascribed to them and of space with the qualities that have been ascribed to it in the particular system of physics and geometry under discussion? If so the space and the

¹ Cf. Mr. A. Robb's very interesting and important work, *A Theory of Time and Space*.

physical bodies of this system of physics and geometry are real in the sense that they are definite functions of observable facts, functions which of course are just as real whether we explicitly notice them and give them names or not.

Now can these questions be answered? The second can be answered by simple inspection. You have merely to see whether there be any facts of sensible experience that will not fit into the system of physics and geometry under discussion. If they all do so you will be able to say that the space and the bodies of this system are real, as far as we have been able to tell, in the second sense. I can hardly give a better example of what I mean than by asking whether the facts, of electrodynamics fit in with the Newtonian physics and the Euclidean geometry. If they do not then either Euclidean space or Newtonian bodies are not real in the present sense. Now, in so far as we have in electrodynamics to assume the Lorentz-Fitzgerald contraction and cannot explain it physically, we shall have proved that the Newtonian physics and the Euclidean geometry are not capable consistently of dealing with all observable facts, and so that either Euclidean space or Newtonian bodies are not real. For if the Lorentz-Fitzgerald contraction cannot be explained physically it will involve an action of space or matter, and this is contrary to the general conditions which all space must obey. I do not say that the facts of electrodynamics do force us to conclude that either Euclidean space or Newtonian bodies are unreal in the present sense; but I take this as an illustration of the sense of reality under discussion, and remark in passing that these facts have actually led certain mathematicians and philosophers, *e.g.* Minkowski and Mr. Robb of Cambridge, to elaborate a new system of geometry and a new system of physics which shall consistently fit all the facts.

Let us now return to the first meaning of reality. The first thing to notice is that the question whether space and bodies be real merely in the sense of being of the same logical type as objects of perception is of very little importance compared with the question whether they be real in the sense of being consistent functions of all observable facts. And I think the question is and will always remain an unanswerable one. The only way in which we can become sure of the existence of any particular, *i.e.* of anything of the same logical type as a sense-datum is either (1) by actually perceiving it or (2) by inferring its existence as causally connected with some of our sense-data. We have seen that space cannot be known in either of these ways. It

might perhaps be said that at any rate physical bodies can be inferred as the causes of certain sense-data, *e.g.* light waves are inferred as the causes of our sensations of colour. I am now inclined to think that this is possibly a mistake and that Mr. Russell may perhaps be right in regarding physical bodies as constructions just as space is a construction. The only difference will be that space is a construction involving objects of a higher logical type; thus if physical bodies be classes of sense-data, points of space will be classes of classes of sense-data. So the only answer to the question whether points of space be real in the same sense as perceived objects is the following: Geometrical points and physical bodies as constructed by us are certain functions of our sense-data. Geometrical relations of spatial points are relations between these functions so determined as to be consistent with the relations that we actually can observe between sense-data themselves. Whether there be particular entities as distinct from these functions which have to each other the same relation as these functions we cannot tell. If there be such entities then geometrical points exist in the same sense as directly experienced objects; if not they only exist in the sense in which a real function of certain existent magnitudes can be said to exist. And the latter mode of existence is enough for all scientific purposes, and enough to make the existence of space independent of any one's mind.

We are now in a position to answer the question which forms the title of this paper: What is meant by asking whether our space is Euclidean? All that it can really mean is this: Subject to the conditions that space is to be changeless and homogeneous and not to act on matter, and that matter is to move about in space, can we construct a system of physics which assumes Euclidean geometry for space and enables us to deal consistently and adequately with all the data and all the changes in the data of the various senses of all sane waking men? This way of putting the question asks a little more than we really ask of science; we actually allow science to neglect a good many sense-data, *e.g.*, those obtained through using the tip of the tongue, etc., and we also allow it to prefer some sense-data to others of the same sense; *e.g.*, we are contented if its amount is consistent with the sense-data reached by means of an instrument of precision like a microscope, and allow it to neglect, in comparison with these, sense-data obtained by the naked eye. So the final form of the question will be this: Subject to the conditions that space is to be changeless and homogeneous

and not to act on matter, and that matter is to move about in space, can we construct a system of physics which assumes Euclidean geometry for space, and enables us to deal consistently and adequately with all the data that scientists agree to be most worthy to be taken into account? We cannot now go further into the long and complicated story of the justification of scientists in preferring some sense-data to others; we must take it for granted here that they are right.

Now of course the only way to answer such a question as this is actually to try and construct such a system of physics. If you can do it, well and good; space is Euclidean. If not then space may not be Euclidean. But there are three very important points to notice here. 1. It is notoriously very difficult to prove a negative. Anybody's or everybody's failure to construct a satisfactory system of physics assuming non-Euclidean geometry could not prove that such a system was impossible and that our space was not Euclidean. At the most it would strongly suggest it. 2. All the alleged particular crucial experiments like measurements of stellar triangles, of parallax, etc., are quite wide of the mark. They forget that *both* physics and geometry are constructed out of a *common* matrix, *viz.*, people's sense-data and the relations and changes of these, and therefore our physics and our geometry are essentially correlatives. Hence such experiments at best only answer the question: Can we keep our physics unchanged and retain our Euclidean geometry. This may be an interesting question, but it is not the question whether our space is Euclidean. And it is essentially an unfair kind of question. You might just as well ask: Can we keep our Euclidean geometry unchanged and retain our old physics? The proper question is: Can we make up *any* system of physics which will account consistently for all the facts and allow us to retain Euclidean geometry? if so our space is Euclidean. 3. The third very important point to notice is that, if it be decided that our space is Euclidean, this will in no way prove that it is not also non-Euclidean. If we can also make up a system of physics which shall deal consistently with all the sense-data recognised by science and assume hyperbolic geometry, then our space will also be hyperbolic. The moment that we see that physics and geometry are essentially correlative factors in a certain way of treating a common experience we see that there need be no essential incompatibility between the three geometries.

Before closing this paper I would like to say a word about an argument that is used by Prof. Aliotta.¹ He seems to

¹ *The Idealistic Reaction against Science.*

hold that there is no incompatibility between Euclid and the other two geometries because hyperbolic and elliptic geometry are mere fragments of Euclidean geometry. All figures dealt with by non-Euclidean geometry exist in Euclidean geometry, but some Euclidean figures do not exist in non-Euclidean geometry, *e.g.* Euclidean straight lines. As stated this is undoubtedly false. The geometry of the horosphere in hyperbolic geometry is Euclidean, just as much as the geometry of the pseudosphere in Euclidean geometry is hyperbolic. Again in hyperbolic geometry there are equidistance curves to correspond to Euclidean parallels, though of course equidistance curves are not hyperbolic straight lines. But although Prof. Aliotta's explicit statement is certainly mistaken it misses the following interesting point. In Euclidean geometry points, straight lines, and planes are simply defined by postulates, *i.e.* by propositions asserting their relations to each other. It follows that a point, a straight line, and a plane in one space cannot mean precisely the same things as points, straight lines, and planes in any other space. This at least leads to the suggestion that, *e.g.* hyperbolic points may be certain logical functions of Euclidean points and Euclidean points certain logical functions of hyperbolic points. If this be so then, even keeping our physics constant we can treat the corresponding space as either hyperbolic, elliptic, or Euclidean; and the three geometries will only be three different ways of meeting the same geometrical relation. But whether this last suggestion be a fact is a question into which we cannot now enter.

III.—LOTZE'S RELATION TO IDEALISM.

BY E. E. THOMAS.

SECTION 3.

So far we have seen Lotze maintaining that what renders the world a whole is an order of validity, which is independent of all that is or that takes place. What we seek to show in this part of our paper is, that from this position Lotze takes two ways, the one leading to Idealism, the other away from Idealism. We will first trace his Idealism. He recognises that this unity of order is not the only unity in the world; there is another unity, namely, that of existence, which also extends over the whole of reality. Lotze brings out the distinction between these two forms of unity by comparing the logical principle of ground and consequent with the real principle of cause and effect. There are two reasons which bring it about that (a^1) acts with (b^1) to produce the consequence (f); the one is that (a^1) and (b^1) are in their natures eternally adapted to one another; the other is that the course of events in the world has actually brought them together. The circumstances which bring things together are summed up in what we call the unity of cause and effect; whereas the unity through the medium of which things are adapted to one another is summed up in what we call the logical unity of ground and consequent. This unity of cause and effect or of existence, rests, according to Lotze, in the life of a single being co-extensive with the whole of reality; for when things interact with one another, or cause changes in one another's being the states of one thing A must be regarded as also the states of another thing B, with which A interacts, and *vice versa*. This, however, is only possible if A and B are parts of a larger whole M, which through its own activity produces or finds within itself a variety of states corresponding to, or rather constituted by, the variety of those objects which find their existence within it. Further, since all things act reciprocally with one another it is clear

that everything must find its existence as a part or state of a single being *M*, which includes within itself all that exists.

Now it is the answer which Lotze gives to the question as to how these two unities stand related to one another, that determines his attitude towards Idealism. To make the unity of order prior to that of existence, is to return to Idealism; to make the unity of existence prior to that of order, is to move away from Idealism.

Lotze tries to reduce the order of validity to a unity of principle; but he fails to do so. He holds the view that logical relations of reason and consequent are summed up in the form of general laws. These laws, it must be remembered, are not those which, as constitutive of individuality are principles of reality. Further, he holds that these laws are derived from one another on a basis of syllogistic reasoning, which proceeds analytically. He tells us that through such reasoning we arrive at last at a body of laws which cannot be brought to further unity, for they will involve a synthesis which mere logic cannot give to them. Let us take an example of this derivation of laws from one another. We will take the general law, "All organisms must die"; then the individual case, "Men are organisms"; then the law derivable from this, "Men must die". Now if all that is individual comes under such laws, and if these laws are derived from one another in the way described, we shall at last arrive at a few laws or one law which leaves no part of existence outside of itself. If we had such a highest law, what would be the principle of unity involved in it? The Transcendental Idealists would have maintained that its unity is that of the presuppositions of experiencing anything at all; but as soon as we see that laws involve a unity of concrete nature the invalidity of such a position is at once brought to light, for concrete nature will not resolve itself into the content of presuppositions of any kind whatsoever. Lotze maintains that it is a unity based upon "an æsthetic necessity and justice". He says: "While undoubtedly a conception of the individual admits of being derived analytically from the general, the most general laws are given synthetic relations of reason and consequent, which we have simply to recognise without in turn making their connexion dependent on the fulfilment of any conditions whatever. No doubt, in the plan of the world as a whole these given relations are not isolated, unconnected, data. Any one who was able to express this highest idea would

find them bound together, not indeed necessarily by a logical connexion; but by an æsthetic necessity and justice."¹ He tells us, however, in the same section, that this æsthetically necessary unity is hidden for ever from us; that the reason why to $a^1 + b^1$ a consequence (f) is attached, and to $a + b$ no consequence is attached, can never be known to us. The only unity we can know is that as a matter of fact these consequents are attached to these antecedents. Thus Lotze refuses to undertake the task of showing that the unity of validity rests in anything deeper than a systematic order holding good of the natures of things.

We must notice that had Lotze undertaken this task he would have been forced to find the basis of the order of validity in personal life. 'Æsthetic necessity and justice' presuppose personal life in that to which they belong. Beauty, which is what we mean by æsthetic unity, lives in appreciation, and requires for its existence judgments of feeling. Justice lives only in the acts of a personal being. If he had found that the unity of validity is given in and through the medium of personal life, then he would have had to show how the interplay of personalities gives rise to the unity which we find in the world. This would have been to take up an Anti-Idealistic position, which he refused to do.

Now the unity of adaptation is something without which the unity of existence, and change in this unity, are impossible. It is therefore prior to existence and change. In order to influence the changes taking place in reality the unity of adaptation may be thought of as existing external to that whose changes it determines, and as influencing it from the outside; or it may be thought of as living within the order of change, and determining it from within. Lotze rejects the first of these views. The argument by which he does so arises out of his criticism of Leibnitz's pre-established harmony. He tells us that if all things are harmonised in God's understanding before these things come to existence or reality in our world, then God really gains nothing by calling the world from idea into existence. The whole history of the world down to its minutest detail would be predetermined, and nothing new in the sense of being unknown, unthought of, or unexperienced, could come into

¹ *Metaphysic*, sec. 59, English translation.

existence. But (and here Lotze supposes that all things are a unity finding their existence in the life of a single being) reality has no value if it does not bring forward new experiences. If nothing new ever came into our consciousness then our life would have no value for us ; and if something absolutely new and unthought of did not come into the life of the world as a whole, then the world would not enjoy and live in the consciousness which it has of itself ; this would mean that the world would not really exist. Thus there can be no external order of validity standing external to that which it influences. Since this is the case, it would seem that this order must live within that whose changes it renders possible ; and this is what Lotze maintains. He holds that the eternal validity of a law connecting together eternal truths, that is, the eternal natures of things, lives in the law as being in process of fulfilment in reality ; that there is no independent validity of laws constituting a unity which has existence previous to, or independent of, the unity involved in the active, living, reciprocal action which takes place between things.¹

This at once raises the question as to how the order of validity can live within, and have a determining influence upon, the order of existence. It seems as if there is no way in which an order of validity can live within an order of existence unless both orders are identified as one and the same, which would of course destroy the distinction. If the timeless unity of adaptation between things lives in those things only as they find unity in reciprocal action, then it would seem that such unity of adaptation would only be valid when things actually interact with one another ; we should only be justified in saying that (*a*¹) and (*b*¹) are *now* adapted to one another in this particular way which produces a consequence (*f*), because, as a matter of fact, they act with one another in this way. It could not be maintained that these things are *eternally* adapted to one another, and must always act with one another in this way when they come together. Such identification of the unity of validity with that of existence would lead to the destruction of the former, and we should be left with scepticism.

Now if the unity of adaptation possessed the same kind of being as the unity of existence, the objection we have raised would be unanswerable. But it has, according to Lotze, a

¹ See *Metaphysics*, sec. 62.

different kind of being, for it rests in the natures of things, and these are different from the existence of things. The nature of a thing undoubtedly lives in the existence of that thing; if it did not do so the thing would not exist, for nothing can exist without possessing a definite nature. But at the same time this nature is distinct from existence, for it enables a thing to enter into relations of content which are not identical with those of existence. Iron and sulphur may exist in a heated condition in different parts of the world: they may never be brought together so as to form a unity of existence; but their natures are nevertheless related to one another permanently, and in this relation lies the possibility of their existing together to form a distinctive kind of whole. Thus while the unity of adaptation lives in the unity of existence, still its being is not exhausted there. An example from the case of personality will perhaps make this a little clearer. A person's nature may call for the company of persons of a certain kind; only by living with such may he be able to live the fullest and most intense life of which he is capable. If circumstances prevent him from meeting these persons then his life may become shallow and narrow. At the same time, however, it would be recognised that in him there lie greater possibilities than those which have become realised in his life as thus narrowed by circumstances. Such possibilities are the adaptations of his nature to other natures; they never live except in actuality; yet even when they do not find existence, they possess a reality or being of their own in that they hold good or are valid, and would come to actuality if circumstances could be controlled so as to bring such adapted natures together.

Now the being of validity becomes actual in existence; yet at the same time, its independence of existence gives to it a reality different from that of existence. This at once raises the question as to the form under which validity finds its reality. Lotze tells us that it finds reality in the form of truth. We must, however, distinguish between empirical truth and eternal truth; it is empirically true that the paper on the wall of my room is green; it is eternally true that fire will melt wax. The order of validity finds reality in eternal truth, not in empirical truth. Again, we must draw a distinction between truth and knowledge; the recognition of truth is given in knowledge through the medium of judgment, but truth is not dependent upon knowledge; if no one existed to maintain that fire melts wax it would nevertheless be true that fire does melt wax.

Lotze maintains that truth is a form of reality, existence another form, and change or becoming still another form ; that each constitutes a side of reality which is not derivable from, or reducible to, the others ; but that all form a peculiar whole. The absence from a thing's being of any of the above forms of reality would mean the destruction of that thing. A thing cannot be real unless it exists, and unless it changes under changing circumstances in ways peculiar to itself and which can be expressed as a permanent law ; further it must possess a permanent nature which stands related in a permanent way to other natures.

The theory here put forward by Lotze is Idealism over again. The great problem of Idealism was as to how a body of presuppositions, which are eternally true, and therefore out of the reach of change, can enter into and determine the existence and the changes of things belonging to the temporal world of sense. The development of Idealism failed to solve this problem ; Hegel sunk everything in the Absolute and by so doing made everything eternal and timeless, thereby destroying the distinction between the temporal and the eternal. With Lotze the order of validity consists of the detailed presuppositions of the content of experience ; this constitutes an advance upon Idealism ; for the presuppositions of experience as viewed by Idealists were presuppositions of mere experience, and consequently empty of real meaning and content. The problem of Lotze's philosophy is the same as that of Idealism ; it is the problem as to how the eternal and timeless character of a body of laws can constitute themselves the presuppositions of all existence and of all change, and thereby enter into and determine that which belongs to time. To maintain that validity, existence, and change are ultimate forms of reality does not solve the problem ; it only takes us back to the point from which Idealism started, with this difference ; it involves the supposition that the problem is insoluble, while at the same time giving us no valid reason for regarding it in this way.

But there are other elements in the philosophy of Lotze which lead to a solution very different from the one put forward. There is in Lotze a very large tendency to regard personality, freedom, value, as the media through which the unity of the world is effected. It is to this tendency, which is Anti-Idealistic, that we must now turn our attention. There are two stages marking the development of this ten-

dency. The first is the view tentatively held by Lotze, that the unity of existence is effected through an all-inclusive personality which is gained through the interplay of lesser personalities; the second is the theory to which Lotze's philosophy is driving him, namely, that the unity of validity centres in personality. These two positions lead inevitably to the conclusion that the bringing together of existence and validity in the unity of the world is brought about through the interplay of souls or minds.

The first thing we have now to show is, how the unity of existence is effected through personality. Lotze maintains that the unity of existence consists in the fact that all things are parts or states of a single being, which he calls M; that all activity in things really consists of the single activity of M, which runs through all things and gives to them the appearance of acting upon one another from independent standpoints. Certain difficulties present themselves at this point. If, in every reciprocal action the whole M acts, then it would seem as though we ought to be able to trace, or at least to set before ourselves the ideal of tracing, not merely the actions of A, B, and C, which enter into this or that particular reciprocal action, but also the actions of D, E, and F, etc., as entering into it, until all things finding an existence in M are exhausted. It is quite true that in cases of physical action, such as the striking of one billiard ball against another, we consider all material existence as contributing to the effects which these have upon one another. But physical action is not the only kind of reciprocal action, and in many other kinds the whole of the activity is strictly limited to the very few objects immediately taking part in it. True, the objects taking part in this particular reciprocal action are connected with the outside world in a multitude of different ways; but in reference to the particular action in which they now take part they are isolated from the rest of the world. For instance, iron and sulphur may interact with one another in the crucible on my table, and the rest of the world will not be chemically affected in the least. Why not, then, maintain that these things, in so far as they are connected together through this particular activity, form a single whole cut off altogether from a living and active connexion with the rest of the world in respect of the kind of activity which is now taking place throughout its parts?

Lotze's answer to the question just raised is, that the change which M initiates within itself only requires that

these few objects shall act upon one another, and demands that the rest of the world shall remain unaffected for the time being. He bases this conclusion on a deeper view, namely, that the world is the expression of a single meaning; that in order to maintain unity of meaning as against change which might destroy such unity, it is not necessary that a corresponding change shall run through every portion of the world when a change takes place in this or that particular portion. Now meaning cannot be understood apart from consciousness; a thing has meaning in so far as it adapts itself, or can be adapted, to purposive activity on the part of a consciousness which acts in relation to it. The meaning of the world, however, must rest within the world and not in its relation to any consciousness which stands outside of it. Hence the world must possess purposive consciousness, and therefore personal life. This is the most cogent argument that can be put forward for the personality of the world. But while Lotze holds that the world has a meaning he does not base upon this the further conclusion involved in it, namely, that the world possesses personality. This conclusion he seeks to establish on the basis of other considerations.

The next point we have to establish is that the personality of the world as a whole involves the existence of lesser personalities; that it is the interplay of these lesser personalities which conserves that of the whole. In order to do this we shall show Lotze as maintaining that all activity is moral activity. We distinguish between physical action, the actions of persons, and the actions of the Divine Being, holding that physical action is entirely different from that of persons, and that the actions of the Divine Being are of such a nature that we cannot understand them. When Lotze maintains that things interact with one another on the basis of an eternal nature which is valid of them, he subscribes to this view; for such activity does not involve a moment which can be described as moral; even when he regards things as creative individualities this position is not altered. But when he comes to consider the springs of human activity and to connect them with the fundamental unity of the world, he makes all activity whatsoever moral activity. He makes a distinction between souls and spirits, holding that human beings are spirits, and all that is sub-human are merely souls. These sub-human souls he excludes from the moral union constituting the spiritual world. The activity of spirits, he tells us, is directed towards the realisation of that which is

considered as having worth or value in and for itself. The only thing that has such worth or value is pleasure. We must notice, however, that if activity is directed to the obtaining of feelings of pleasure and the avoidance of feelings of pain, then the activity of the individual, while being directed upon things outside of itself from which it can derive pleasure, centres in itself and returns to itself. And further, one soul cannot experience directly the feelings of another; hence activity directed to the production of feelings cannot unite souls to one another; it must rather tend to keep them apart.

Lotze seeks to modify the extreme individualism to which such a view as this leads by maintaining that feelings of pleasure and pain are not purely individual; that, on the contrary, like our individual judgments of truth and falsity, they have a universal side and are a means for discovering an objective order of worth or value in things. This gives us the ideal of a duty which is the same for all and which is binding upon all. He can only establish this position by maintaining that feelings of pleasure and pain have a qualitative content derived from the nature of the object which gives pleasure or pain. The activity of the individual is therefore directed to the obtaining of a particular pleasure from a particular object, and not to the experience of mere pleasure. But if objects existed altogether outside of consciousness; if they were not also part of the content, and constitutive of the life of the subject who feels pleasure in them, it would be difficult to understand how they could give a qualitative content to feelings. Lotze, however, tells us that the soul, through its activity, seeks to enlarge its own being by bringing into its life a larger and larger objective content which shall be constitutive of that life. In doing this the soul brings into its life objects which were previously outside of that life. This gives rise to feelings of pleasure and pain according as these objects tend or do not tend to enhance the development of the soul on the lines set down by the nature which it already has. But the nature of the soul is determined by the nature and unity of the objects which have already entered into its life; hence the springs of all moral activity must consist in the endeavour on the part of the individual to bring a certain unity of objective existence into his life or experience. Lotze recognises this when he says: "We believe that we could perceive, even in the merely sensitive life an inclination to assign to every content of sensation its proper place among

others, to find in every tasted pleasure that there was some intrinsic excellence in the thing enjoyed, to seek pleasure in all directions ; not merely in order to procure for self the advantage of a pleasant enlargement of life, but to seek, in inseparable connexion with this, to provide in one's very enjoyment a place where the worth of things and events may have an existence for consciousness".¹

Now although pleasure and pain cease to be the real springs of moral activity, still these springs are made by Lotze to reside in the individual as an individual ; for it is his desire to realise, in his own life, an objective system of worth that constitutes moral endeavour and gives rise to a moral order or union of souls. It is evident, however, that such a union of souls can only come into being if the order of worth which each realises in his own life is universal. It must be the same objective order of worth that must constrain all individuals to act in relation to it, and which, by so doing forces them all to a unity corresponding to, or determined by, its own unity. And Lotze is forced into taking up this position. He maintains that moral activity takes place in reference to what is good, beautiful, and just, and involves the existence of an objective goodness, beauty, and justice which extend over the whole of reality.

What has now to be determined is the nature of this objective goodness, and how spirits forming the moral union stand related to it. Lotze identifies the objective order of worth with the metaphysical unity of the world as found in the whole *M*, which is the basis of the reciprocal action taking place between material objects. This identification is carried out through a two-fold argument which he makes use of in seeking to prove that the unity of all things is a personal being. He maintains that the ethical attributes of wisdom, justice, and holiness are personal attributes ; hence the universe, which is pervaded by these must be a person. Again, he tells us that all action can only be thought of as the action of a self ; for it is only when we are conscious of our own activity that we are really active. The ultimate Real Being, which is the unity of all things, is essentially active, and in its single activity is to be found the ground for the multiplicity of changes taking place in finite things. If, then, we couple together these two positions we must

¹ *Mikrokosmos*, Bk. V., chap. v., sec. 8 ; English translation, by Hamilton and Jones, 4th edition, vol. i., pp. 713, 714.

arrive at the conclusion that all activity is moral activity proceeding from the Universe as a person. In the earlier stages of his investigations into the nature of reality, Lotze did not allow any room for moral activity as belonging to that which is constitutive of reality. He held that reality exhausts itself in three sides, namely: Being, Becoming, and Validity. Later, however, he is forced to find room for a moral aspect as belonging to the activity of objects. In the notes to his lectures in *Æsthetics* he maintains that "Reality manifests to us three realms or powers that involve one another, namely:—

"1. The realm of universal laws. . . .

"2. The realm of real substances and forces. . . .

"3. The definite and specific plan according to which these elements of reality are brought together under each other, in order to realise a definite end by their action according to universal laws."¹

Now it is evident that the third realm of reality in the latter classification is an order of value or worth not contained in the first classification.

So far we see all activity proceeding from order, and even although this order is centred in a Person, yet we have not arrived at a position different in principle from that of the Idealists. The position at which Lotze has now arrived is Kantian rather than Hegelian; he wishes to show how an order of purposes or ends can be realised in the world by means of mechanism carried out through the instrumentality of free individuals. A complete harmony of these various moments he calls Beauty, and he maintains that the fundamental unity of the world centres in Beauty.

The validity of the above position turns upon the possibility of making an order of worth centre in the person of the whole, *i.e.* in the life of the Divine Being; Lotze, however, fails in this. He held that worth or value consists of that which enlarges the life of an individual along the lines already laid down by its nature. Now enlargement of life may come in two ways; it may come as the gathering into life, of new content, or, as the ordering anew of content that has already been brought into life; for such ordering anew brings with it new experiences. The first way of enlargement is closed to the Divine Being, for there is nothing out-

¹ *Outlines of Æsthetics*, English translation by Ladd, p. 10.

side of Him which He can bring into His life. Is the second way of enlargement open to Him? This would only be the case if the life of the Divine Being were a striving to attain, or to conserve some purpose; it must be that the actual order of the Universe does not realise the purpose of the Divine Life; hence the Divine Being initiates activity within Himself, which will re-order the contents of His Life in such a way that they will realise the aims which He sets before Himself. Now the purpose of the Divine Life must be, either, an end to which the process of the world is directed, or, a form of Becoming which has continually to be maintained. If we hold to the first alternative then we must admit the existence of a principle of evil or chance which continually refuses to subordinate itself to the Divine Purpose. On such a view as this, however, the Divine Being cannot be all-inclusive, and the principle of Beauty, which is the principle bringing unity to this Life, cannot be the fundamental principle of reality. Lotze now tries to show that the purpose of the Universe is a form of Becoming; he maintains that this purpose is that of maintaining the Self-identity of the Universe; that it consists in the continuous establishment of the formula $M = M$. This means, however, that the identity of M with itself is subject to continuous disturbance. Such disturbance must come either from M itself or from something which is external to M . In one sense there is nothing external to the life of the Universe; the content of all that is or that takes place must be part of the content of the Divine Life. In another sense, however, all that is real "detaches itself from the Infinite" by possessing a consciousness or feeling of itself, which gives it existence for itself, and which is not shared by the Infinite.¹ Thus activity which disturbs the self-identity of M may be initiated in the self-feeling life of the individual, as such. Lotze is inclined to place the initiation of such disturbing activity in the individual. He supposes the equation $M = \phi$ ($A B R$) to hold; i.e. that the whole universe, at any moment, consists of a plurality of things and events $A B R$ unified according to a certain principle ϕ . He says: "If we allow ourselves further to assume that one of the individual elements has undergone a transition from A into (α)—however the excitement to this transition may have arisen—then the former equation between ϕ ($\alpha B R$) and M will no longer hold. It would only be re-established by a corresponding

¹ See *Mikrokosmos*, Bk. IX., chap. iii., sec. 2, English translation, vol. ii., pp. 645, 646.

change on the part of the other members of the group, and $\phi (a B R^1) = M$ would anew express the whole nature of M ." ¹ In the next sentence, however, Lotze denies that change can be initiated by any single element going to make up the whole M , maintaining that all change is initiated by M as a whole. But if it is the whole M which changes when A changes to (a) , and if it thus changes in order to preserve its self-identity, why should it ever go out of itself into a condition where change is needed to re-establish itself? Lotze's answer to this question is that the nature of M consists in its being a "definitely directed process of Becoming". ² Now, the process of the world, if directed, must be directed to an end or state of affairs that is determinate, and if the process of the world is real this state of affairs must be finally reached. When this takes place the process of the world would come to an end and we should reach final destruction—an impossible conception. The alternative to this is that the process of the world is not directed to any end but to its own self-maintenance. Lotze, however, will not accept this alternative; he wishes to maintain that direction always means direction to an order or system. He tells us that the process of the world has a meaning; that this meaning must be thought of as an Idea finding expression in each of the various forms which this process gives to the world; that these forms are related to one another in a systematic way thus giving us an order of Becoming. He says: "The relation, however, of the Idea M to the various forms, thus constituted, of its expression— $\phi (A B R)$, $x (a b r)$, $\chi [a \beta p]$ —is not that of a genus to its species. It passes from one into the other—not indifferently from any one into any other, but in definite series from ϕ through x into ψ ." ³ It is evident from the above that this meaning of the world can never be exhausted; for if it could the process of the world would run through a limited and therefore recurring cycle of phases; such a process would not constitute Becoming for it would hold nothing essentially new. Still, even if the meaning of the world cannot be exhausted, and therefore known in all its fullness, yet there must be some way of giving expression to the process through which this meaning fulfils itself. Lotze tries to give us a solution of this problem; he takes his stand on a criticism of the Idealist position. He held that the Idealists had considered the Idea as a metaphysical prius which logically developed into, or subordinated to itself, a number of

¹ *Metaphysics*, sec. 70.

² *Ibid.*, sec. 92.

³ *Ibid.*, sec. 91.

lesser ideas, forms, or principles, which it imposed upon the world. But, Lotze points out, a purely abstract idea could determine nothing, and could not resolve itself into a plurality of meanings or forms. Again, the Idea M cannot be detached from its definite, determinate, and content-full realisation in concrete being. Now if the course of the world proceeds through a directed series of forms or phases, and if the Idea M is only real in each of these phases ; then, since the idea determines the order of succession of the phases, each preceding phase must determine each succeeding one ; that is to say, the connexion between the various phases of the world's history must be causal. And Lotze definitely puts forward this view. He says: "... the dialectic connexion between such phases of reality as stand in a definite order of succession, which was implied in their being regarded as an expression of one Idea, must pass over into a causal connexion, in which the content and organisation of the world at each moment is dependent upon its content and organisation at the previous moment".¹ But a difficulty now arises from this use of the causal relation. The causal principle involves the existence of a plurality of objects which act upon, and produce effects in, one another. A thing cannot act and produce effects in vacuity. No phase of the world as a whole can produce effects in another phase which does not exist. The only way in which, through the causal relation, a new phase of the world's history can come into being, will be by the individual objects existing in the world producing effects in one another, which will constitute this new phase. And Lotze admits this. He says: "The transition of one phase ϕ into the other χ is brought about by the combination of the reciprocal effects, which the several movements contained in ϕ once for all exercise in virtue of their nature, independently of the phase in which they happen to be combined or of the point in the world's course at which they from time to time appear".² But to take up this position is to maintain that, what forces the world to move from one phase to another does not lie in the world as a whole, but in the individual as an individual ; and that we cannot find an objective system of worth centering in the unity of things, which shall guide the activity of the individual in his endeavour to constitute himself a member of a moral union of spirits. The systematic unity of the phases of the world's history is created by the free activity of individuals, as such, and can never be considered as logically prior to this activity.

¹ *Metaphysics*, sec. 91.

² *Ibid.*, sec. 92.

Lotze puts forward a theory to the effect that there is an order of spirits subject to the government of the Divine Being. Such a view is in agreement with the conclusion established above. According to this theory the individual must be outside of the Infinite, not merely in respect of the appreciative, feeling, or self-experiencing side of his life, but also in respect of his activity; he must be free. This freedom consists of the individual's power to initiate new series of events into the mechanical scheme of the world. The Divine Being and Spirits co-operate in the creation of circumstances of life, which will give to them a common experience of happiness; they do this by calling into being new sense contents, which form new links in the mechanical chain of events, thereby exercising guidance over these events. The guidance of the world is, therefore, not only spiritual, but also proceeds from the desire on the part of persons to find harmony in the possession of a common experience. It is not principles, or order, or system that is ultimate in reality, but a pluralism of persons.

There are, undoubtedly, very serious objections to this theory of Government, as held by Lotze. In the first place, it presupposes a division of the Universe into a material world, on the one side, and a spiritual world, on the other. This division is based on a false separation between feeling, or experience, and content, which is experienced. Lotze has tried to show that the sense qualities and the mechanical modes of behaviour belonging to a thing are not merely our experiences, which we group together and project with spatial and temporal forms, thus giving rise to a world which we call objective, and which we consider as external to ourselves; but that they also exist as constitutive of a conscious life, which forms the independent being of that thing. The distinction between an outer and an inner life, which gives rise to the view that we possess a material life and also a spiritual life, does not belong to the thing itself, but is made by those who are outside of it and can experience only part of its existence. A thing is a perceptual unity; it is what it perceives itself to be; its perception of itself and its 'being for self' are identical. The same is true of a human being; he is the unity of what he perceives in common with other perceiving beings. It is an interpenetrative, conscious, life gained through perception on the part of a plurality of self-feeling unities of sense contents, that constitutes the meaning and life of a person. Personal or spiritual life is not different in principle from material life; and there is no

justification, therefore, for holding that there is a realm of spirits standing over against, and acting in relation with, a world of mere things.

In the second place, by making spirits different in principle from things Lotze has been forced to centre freedom of activity in the appreciative side of the life of the soul. Activity centred here, however, fails in effectiveness: for it proceeds from and ends in, that which is vague, indefinite, and contentless. Lotze holds that the soul cuts itself off from the Infinite, not through limitation or separation of content, but through the exclusivity of feeling involved in the act of experiencing content. The unity of such feelings must be that in which spirituality rests, if it is to be distinct from materiality. But these feelings, according to Lotze, are those of pleasure and pain. He tells us: "It is in feelings of pleasure and pain that the Ego is first conscious that all its individual states belong to it and that its whole nature is affected; whatever proceeds from pleasure or pain, appears to us as a traction of our own nature".¹ Again he tells us that pleasure and pain are "the only springs of all practical activity".² Now the attempt to give to these feelings a content drawn from the nature of the experiences, which give rise to them, ends in the destruction of the separation between feeling and experienced content; this means that the soul or spirit cannot be distinct and separate from the unity of the material content, which is experienced. If this is the case activity must centre in living content and not in feeling; and the freedom of the soul as standing over against the material world and guiding its mechanical course from a higher point of view, is destroyed. If, on the other hand, the feelings are still regarded as constitutive of a soul life distinct from those things which are experienced, and if free activity is made to spring from these feelings, then such freedom is worthless; for mere feelings are contentless and cannot be a guide towards the building up of a world in which variety of content and of principle shall come to systematic unity. And on account of this Lotze is unable to tell us in what the supreme happiness consists, what is the purpose of the world, and what the Divine experience.

It is undoubtedly true to say that the main tendency of Lotze's philosophy is anti-Idealistic. His philosophy started in a theory as to the nature of material reality. This theory

¹ *Mikrokosmos*, vol. i., p. 687.

² *Ibid.*, p. 688.

was Idealistic. At the same time, however, he sought to bring this theory into line with his recognition of a spiritual reality, which was conceived of by him not in terms of Idealism, but in terms of Leibnitzian Pluralism, modified through the Kantian theory of Freedom. In order to effect reconciliation between these two worlds he introduced into the material system a thoroughgoing Monadism. But he did not introduce into the souls of things any moment of emotion or of will; on account of this things became cut off from inter-communicative intercourse with spirits. Again, he did not allow that spirits were also material contents; thus the spiritual world could not become material and hold within itself the rich content of living consciousness; and the material world could not become spiritual allowing itself to be guided by the intersubjective intercourse of free souls, which drew their life from the material content of the universe.

IV.—THE RELATION OF IDEA TO OBJECT-MATTER AS A UNIVERSAL MODE OF COGNITION.

BY CHARLES E. HOOPER.

1.—THE CONTEMPLATIVE POINT OF VIEW.

THE thinker cannot run away from his thought, although certain erratic and rhetorical thinkers attempt, as it were, to do so. My meaning is that, while it is very possible, when thinking, to transgress the rules of logic, it is not possible to escape the psychological conditions of thought, whatever these may be. One such condition may be described by the statement that thought is an essentially contemplative function, which, at least at the level of philosophic thinking, consciously detaches itself from any matter thought about. It always stands or seems to stand in relation to a correlative something or somethings, which may be called its *object-matter*, without assuming that this object-matter is objective rather than subjective; since the conscious self and its states and modes of consciousness are themselves object-matters to psychology. Thought involves a relation to object-matter, even when it seeks to relate itself to the immediacy of feeling, *i.e.*, makes feeling its object-matter. It remains speculative when its object-matter is practice, and even when it tends to promote present and personal action; that is to say, when some part of its object-matter becomes an object, in the moral or purposeful sense. It remains a strictly intellectual function when focussed upon emotion or sentiment (and although it may be actually accompanied by emotion or sentiment). Be he scientist or historian, physicist or metaphysicist, psychologist, sociologist, or ethicist, organiser of industry or practical politician, or merely a plain person who seeks to express certain opinions, the thinker is one who uses ideas, judgments, and inferences, in a way which is characteristic of thinking; not of immediate feeling, and still less of bodily activity. When, as in physical science, ideas and judgments are specially concerned with the physical

world, they remain subjective, or psychical, in themselves. When, as in ethics and political science, they are specially concerned with human actions and institutions, they themselves are still cognitive and non-practical.

2.—THOUGHT AND EXPERIENCE.

It is only by means of thought that any non-intellectual elements of experience can be known; though an equivocal use of the verb, to know, is apt to obscure this fact. What we feel we feel; what we have felt we know that we have felt, of course assuming that our memory is accurate. Any present memory of past experience and any recognition of anything as familiar is an instance of thought in its contradistinction to more elementary experience. Knowledge thus begins, not with consciousness, as such, but with reflection on earlier consciousness; though it is not necessary that we should be conscious of reflecting, or conscious of consciousness apart from some object as recognised.

While the subjective reality of experience, considered as the passing current of personal life, cannot be questioned by even the most sceptical of thinkers, the fact of having had certain feelings, which is the first condition of the ability to describe them and discuss their relations, is not in itself any guarantee that our descriptions or interpretations will be accurate. Indeed, while states of consciousness are empirically known in so far as the more interesting or arresting of them are imaginatively represented in retrospect, the adequate analysis and classification of the manifold and ever-varying contents of consciousness, and the explanation of their internal nexus, are among the most abstruse and disputable problems in all philosophy and science. One cause of this perplexity is the fact that, while several observers can be simultaneously aware of the same physical phenomenon,¹ and so can the more easily learn to distinguish such phenomena by recognised general names, each human being is obliged to reflect privately on his own experience and to imagine the experience of others in the likeness of what he finds in himself. In any deliberate attempt to analyse experience, he must indeed employ psychological terms which are the common property of psychological students, but it is relatively difficult for psychologists to agree as to the proper

¹ It is here obviously assumed that a physical phenomenon is something more than the subjective sensation which represents it to the individual; being, in fact, the object-matter of an idea which accompanies the sensation.

application of these terms to the contents of consciousness, which, as such, cannot be commonly observed.

Thought is at once a part or process-content of experience, the sole instrument for analysing, describing, and partially explaining, experience, and a necessary factor in ensuring that future experience shall differ from past or present experience in such ways as come within the scope of human volition. In the positive interpretation of experience, thought is constantly confronted with alternative possibilities of judgment, and has, at every step, to distinguish the true from the false hypothesis. When it estimates the good and bad elements in experience and furnishes reasons for conduct, there appear new alternatives between contradictory judgments of value or of proposed action, and a judgment is considered to be true if it selects the really good or rejects some really bad alternative. In these its essentially discriminative functions the character of thought seems antithetical to that of experience, as a process which simply *is*, or really passes, admitting of no doubtful alternatives, but being in some sense an immediate certainty. Nevertheless thought itself exists as experience, or is felt, quite independently of its evidential or ethical value, as something presented to the mind.

3.—THOUGHT AS PROCESS-CONTENT OF EXPERIENCE.

The only judgments which all men can readily agree to about their conscious experience—their life, in an intimately biographical sense—are, that it really passes and has in part passed, that it is temporarily lost in intervals of dreamless sleep or curiously travestied by dreams, and that, while they remain awake, it consists in a changeful flux of mixed elements, including all varieties of sensations, notions, judgments, emotions, and volitions; most of which repeat, with more or less exactitude, the character of some which have frequently appeared in the past. Any one of these elements or states of consciousness, whether simple or consisting in a consciously connected group or series, may, when conceived as actually passing, be termed a *process-content*; since, firstly, it forms a distinguishable part of the whole unique *process* of conscious life, and, secondly, it could not be distinguished from coexisting, overlapping, or immediately preceding or succeeding contents, without having some recognisable character of its own, which *content* implies. *Process* refers to a singular relation to the past course of life; *content*, to a general relation of similarity, or sameness of quality. Since any distinguishable element of conscious experience must

have relations of both sorts, the term *process-content*, as employed by Hodgson, seems preferable to such vague terms as "state," "phase," "element," of consciousness, which may be used in the same sense. Here we have a fundamental twofold certainty as to the nature of experience.

Thought enters as process-content into experience, both in the shape of memory and imagination which are not wholly contingent on the verbal symbols of language, and in that of predicative and discursive thought, such as is used in everyday speech or correspondence or in literary production. In either case, thought is distinguished from the non-intellectual process-contents of experience by its reference to object-matters which are usually not present to the senses, and are never present to the senses in the full concrete nature which particular material objects are conceived to have or in the full logical extension which belongs to universals.

The reference of thought to object-matter occurs as recognition, remembrance, anticipation, and imagination of familiar but absent objects existing in places other than those where we happen to be, long before it occurs as logical conception of some type of object, or mode of being, action, or relation, which may appear at any time or place, each of its numberless instances being called by one and the same general name. Empirical imagination of particular persons, "places," and things, with or without the use of proper and other singular names, is that which forms the fundamental stratum of thought considered as a part of experience; but this, of course, affords no data for science or philosophy, save as it gives rise to descriptive propositions whose predicates, at least, contain general or conceptual ideas.

What, then, of discursive thought, considered as process-content of experience? Evidently all thought which depends upon language is by certain persons at certain times experienced as passing in the mind. Terms and the notions attached to them, propositions and the judgments formulated as propositions, have no meaning except as thus related to the actual consciousness of individuals. This is true, notwithstanding that the audible signs of thought go from speaker to listener, and that the visible signs of it are preserved in manuscripts and printed books, etc., while the living brain or the sub-conscious memory (if that be anything different from the living brain) plays the part of a book of reference in which are preserved all those items of real or supposed knowledge which do not need, at a given moment of life, to be called to mind. Knowledge which thus remains sub-

conscious (as most of our knowledge always does) is indeed on a par with the text of a closed but readily available book, and any actual term or proposition or series of significant words constituting discursive thought must be newly experienced by the person who inwardly meditates it, hears or speaks it, reads or writes it, and has a simultaneous passing understanding of or effort to understand it. The experiential character of some piece of discursive thought thus passingly presented to the mind is independent of the greater or less degree of intelligence which is brought to bear on it, and is equally independent of its own truth or falsity. In the case of a single categorical proposition, the experience is that of a series of words to which there attaches the conscious affirmation or denial of something, no matter whether this amounts to personal belief or disbelief, to tentative judgment making provisional answer to some open question, or to imaginative make-believe, which creates or accepts a voluntary fiction.

4.—NOTIONS AS REAPPEARANCES OF IDEAS.

The term, *notion*, may be conveniently taken to mean, not only a distinguished content of thought, or intellectual experience, but a particular process-content of such experience. On this understanding, the same notion never recurs, since no part of the time-stream of experience ever recurs; but each notion (unless it be the first dawning of some idea on intelligence) is a particular recurrence of some previously formed *idea*. The idea has taken root in the sub-consciousness of the individual and gives rise to a long series of notions, through which it very possibly undergoes a progressive clarification and acquires an increased subjective intension. Such an idea (usually marked by an understood term, or by terms understood as synonymous) is thus a relatively fixed content, often reappearing as a passing notion, but never in precisely the same context as before, and not always as precisely the same content. In adult life at least there is no cognition which does not involve some *recognition*, but this recognition may be blent with novel elements, which enlarge or modify our idea of the matter recognised. In cases of actual perception, the fact of attention may disclose new characters in what was previously familiar, while the fact of engaging in studious contemplation establishes new connexions between a given idea and other ideas, which add to the value of the given idea as a nucleus of registered judgments. Thus eventually the idea may appear either as a given concrete subject, implying all the predicates known

to belong to it, as well as the one or two presently employed, or as a given abstract predicate, implying, at least indirectly, the whole variety of subjects to which it is known to belong. According to the suggested definition, a notion is merely a passing *specimen* of some idea, and may be a good or bad specimen according to the degree of attentive understanding which accompanies it, making it a centre of many judgments, understood, though not expressed, and thus distinguishing it from the mere recognition of some word or phrase. The thoughts which are actually experienced are always compounded of notions, as such, and never of ideas, as such.

5.—PERMANENT HUMAN IDEAS INDICATED BY LANGUAGE.

Whatever is signified either by a general name (understanding general names to include names of specific material substances and of specific qualities or relations¹) or by a singular name commonly understood (such as Venus, the earth, the Mediterranean Sea, Aristotle, the Reformation, the nineteenth century) is the object-matter of an idea which may be said to belong to humanity, past and present, and not merely to any individual; for language is obviously a collective product and possession, handed down from generation to generation. Studious thinkers may enhance the logical value, or increase the interdependence, of some of these ideas, and scientific discoverers may introduce practically new ones, but both thinker and scientist are in the main dependent on assimilating common knowledge by acquiring an individual understanding of common terms. We cannot throw original light on a subject, without accepting the light which has already been thrown on it; and, while the philosopher may possibly speculate for his own gratification, he cannot publish his thoughts except on the postulate

¹ The unity which pertains to one material substance, such as iron, or to one quality, such as sky-blue, cannot be properly regarded as singularity, though logicians have classed these names as singular. It is, in either case, the conceptual unity of a specific-general idea, the object-matter of which is universal, not singular. Logically speaking, iron and sky-blue are lowest species, in their several ways, not unitary things (or unitary thing and fact). Iron exists only as particular pieces or masses or traces forming, or contributing to form, locally-related objects, natural or artificial. It is these real—really conditioned and really conditioning—instances of iron which are properly singular. Similarly sky-blue can be predicated of many things besides the sky itself, and all particular instances in which the colour appears are the singular facts of which sky-blue is a generalisation. To call iron one metal simply means that it is one species of metal, and to call sky-blue one colour simply means that it is one species of colour. Each of these species exists only as a plurality of instances.

that what he states is actually or potentially common to the understandings of human beings at large. All particular words should be so understood and used, and, where necessary, so defined, as to have the same meanings in all cultivated minds. In this sense the appeal to experience and the appeal to reason are both appeals to a common humanity, of whose expanding consciousness science, taken in a sufficiently wide sense and as including the philosophical sciences, is the highest expression. The progress of science involves many unavoidable controversies, but, beneath these, there is always a large measure of solid agreement between minds trained to inquiry in any given direction, while even the most important changes of theory are compatible with a modified continuity of ideas. Barring the ethics-of-intellect controversies between knowledge and ignorance, inquiry and prejudice, reason and rhetoric, scientific caution and sanguine credulity, controversies themselves imply an extensive body of ideas common to the thinkers who engage in them.

The conclusion to be drawn from the present and the last Section is that all truly typical ideas and the ideal science of which they form elements belong to the whole of life rather than to the passing moment in which any of them appears, and to the life of humanity rather than to that of particular individuals. Of course the life of humanity referred to is a life composed of the lives of particular individuals; but it has its root-reality in the relation of contemporary mankind to a long ancestry, physical and spiritual, and always derives the great bulk of its ideas from the past. The essence of an idea is thus human-subjective, not merely ego-subjective, and an idea, as such, never transcends experience, if we understand that to comprise all experience of all human beings, dead and living. It does not, however, follow that an idea may not be the means of knowing an objective reality which does transcend human experience; for an idea, as here conceived, is essentially a mental representation or symbol referring to something other than itself, and whether that something lies in past or general experience or in objective reality related to experience is a question which cannot be decided *a priori*. Most contemplated human experience shares with objective reality in remoteness from the thought which contemplates it.

6.—THE OBJECT-MATTER OF IDEAS.

The use of the term, *object-matter*, was touched upon in Section 1. It may stand for whatever is clearly referred to

by thought; that is to say, by any mental image, or understood term, when passingly presented to consciousness, and also by the acquired permanent idea which reappears in any such passing notion. Neither name nor idea has any meaning except as signifying something; which something is its object-matter. Thus the question as to the truth of a proposition is subsidiary to the question as to the true reference of its terms, or of the ideas for which they stand, to object-matters. This fact is recognised when we employ existential propositions, which assert in effect that this or that object-matter is not merely imagined, but has some valid mode of existence. As, however, we usually discuss object-matters of which we think that we have *some* positive knowledge, existential propositions are for the most part understood rather than expressed. This should not obscure the principle that the scientific or philosophic purpose of an idea, as a potential nucleus of judgments (being either subject of many possibly valid predicates or predicate to many possibly valid subjects) is to be *true* to some reality, not by any means to *be* or be *equivalent* to that reality; though, for logic and psychology and the higher sociology the idea has a secondary subjective reality of its own—a reality to which these sciences themselves supply the correlative truth. The relation of thought to object-matter from which it consciously detaches itself is, in my view, a universal and self-evident mode of human cognition. Of course this is no guarantee that any particular judgment is true or that an object-matter supposed to exist really exists; but, if a judgment be true, one necessary condition of its truth is that its terms correspond to genuine object-matters; if there be a knowable reality in question, it can be known only as object-matter of thought.

The more important object-matters or related groups of object-matters referred to by discursive thought are often called subject-matters, but this term contains a subtle ambiguity, tending to the confusion of thought itself with matter thought about. It may mean, not the supposedly real object-matter at all, but the full process-content of thinking in relation to a given subject, in contradistinction to the logical forms of thought employed. For instance, it may mean all the description, classification, and discussion potentially contained between the covers of a book on ornithology, instead of meaning the living birds and their habits and habitats, which are the object-matters of ornithology. Or, if English literature be said to be the subject-matter, this may mean the intellectual substance of those comparatively few books which treat of English literature, whereas the

object-matter is clearly the whole of English literature, so far as that can be investigated. In a small treatise entitled *The Anatomy of Knowledge* (1906, o.p.) I advocated the use of "subject-matter" in the former correlatively subjective sense, in which the subject-matter of a science always stands in relation to an object-matter far greater than itself. The subject-matter of any subject would thus be practically coextensive with the literature of that subject, as distinguished from the correlatively objective subject to which the literature refers. The important point is that thought, as a process-content of consciousness, such as may be derived from reading a book, involves the vital matter of imagination and conception in all its detail, with the language which implies that vital matter, as well as the formal facts of repeated predication and ratiocination. The logical form of thinking conditions the matter of thinking, but does not refer to anything outside itself. It is the *matter of thinking* which always refers to a quite different *matter thought about*.

7.—THE GENERAL RELATION OF TRUTH.

A relation involves at least two related object-matters, and, as so doing, is itself a threefold fact. It may be looked at from the respective sides of the two object-matters and may also be regarded impartially as belonging to the two together. If A and B be related, there is what may be called the *aspective* relation which A bears to B, the complementary *aspective* relation which B bears to A, and the *integral* relation which *subsists between* A and B. This integral relation is either *reciprocal* or *duomodal* according as the two aspective relations are the same or different in mode. There is reciprocal relationship if A and B are equal in magnitude or similar in all respects or in any given quality, if they co-exist in time, if they are so far distant from one another in space, if they are parts of the same whole, if they are brothers. There is duomodal relationship if A is greater than B or possesses a quality which B lacks, if A precedes B either in time or spatial procession, if A is above and B below, A a cause and B its effect, A a whole and B one of its parts, or if A and B are husband and wife, parent and child, teacher and pupil respectively. There is also a duomodal relation between a portrait and the person whom it represents, and between the notion attached to the figure, 3, and all particular cases in which three object-matters, such as distinct bodies or movements or sounds (as a clock striking three) occur together.

The relation between a good portrait and the person represented and that between the notion of three and all particular instances of three may, in either case, be said to be a relation of truth, or of a true symbol to reality, and my view is that all truth involves a similar essentially duomodal relation. The aspective relation borne by the symbol to the matter symbolised is widely different from that which the matter symbolised bears to the symbol; but, when the symbol is an idea, deliberately employed, it carries with it the consciousness of the twofold relation. It sees its completion as outside itself. It is a conscious and, in most cases, unlike that of the simple idea, "three," a consciously inadequate endeavour to represent some integral part of reality which cannot possibly be equalled by or identified with the representation. The idea itself becomes distinct and serviceable by expanding into a group of propositions verbally expressed, but, except in logic and literary criticism, the object-matter is not any such group of propositions.

Scientific truth is only the highest specialisation of a natural complex relation which appears in several other forms. That certain selected contents of immediate sensations, especially of immediate fields of vision, are true to real aspects of objects existing, or to relations really obtaining, in objective nature is the hypothesis on which all physical science is based. Fiction itself may truly illustrate the actualities or possibilities of human experience, and the figures of poetry and rhetoric contain truthful suggestions of various sorts. Dramatic, pictorial, and sculpturesque art always aim to be true, in fundamental respects, to perceived nature, although they may also aim at the idealisation of nature in the purely beautiful. Photographs and cinematograph displays are true, without idealisation, to the visible aspects of their object-matters. Even beyond the domains of human science and art, the peculiar relation of truth appears in the correspondence of outlined shadows to the actual shapes of objects, that of reflected images to the visual presentations of the objects themselves, that of echoes to sounds as originally produced, and that of impressions in plastic substances, such as footprints, to the objects which created them.

Neither in these subsidiary sorts of truth, nor in science itself, does truth ever signify a relation of categorical agreement. It never involves resemblance at all points or sameness of kind or quality. It always involves correspondence of what is correlatively symbolic to what is correlatively self-significant, with the concomitant possibility of endless

defects or degrees of *untruth* in the should-be symbol. If two things or facts or process-contents of consciousness are exactly like one another, or if, without being exactly alike, they are co-ordinated under the same specific general name, there is no *sense* in saying that the one is true to the other. They are both equally real, in their own mode of reality, whatever that may be; but neither is specially true to the other, and they are not necessarily true to any ulterior reality, as a true idea must be.

8.—GRAPHIC AND DISCURSIVE IDEAS.

It is evident that painted pictures can be much truer to the visible aspect of things than any so-called word pictures, while drawings of animals and plants and of their morphological parts are practically essential to works on biology. We could have neither abstract geometry nor practical geography without diagrammatic representations, referring in the one case to spatial possibilities and in the other to terrestrial actualities. The graphic ideas which tend thus to realise themselves, not in propositions, but in pictures and diagrams, play an important part in the building up of knowledge. Discursive ideas are, however, at once more widely and more intensively symbolic. They adapt themselves in their own way to everything which graphic ideas can be adapted to, and to much besides. They refer, not only to visual sensations, but to sensations of all kinds and to modes of consciousness which are not sensations at all; while, in connexion with visual perception itself, they—that is, understood names applied to what we see—serve to single out for special investigation certain particulars which appear in a field of vision, this being the first condition of the scientific method of observation. The chief of such particulars are material objects, known either individually or as specimens of some type or material, and intuitively credited with many qualities and relations other than those which are immediately observed. A material object is the object-matter of a concrete discursive idea, which may stand as subject to many different propositions. These, taken together, describe the object. The object's integral qualities and relations are the object-matters of the various predicates which form these propositions. Graphic ideas, on the other hand, can represent objects only by their imagined or delineated forms and groupings, but these, especially when delineated, may be much more accurately symbolic of real shapes, magnitudes, and local relationship, than any merely

discursive ideas could be; while the attributes in question are of outstanding importance in the objective world.

Geometry, which chiefly depends on graphic ideas, is concerned with space as the fundamental condition to which the object-matter of the general physical sciences is subject. Geography, dependent on graphic ideas of a more determined sort, is a necessary foundation for the understanding of human history, and of the vaster history of that universe of which the earth itself is a member—the history which has astronomy, palæontology, and phylogeny for its branches, and with which the period of humanly-recorded time is connected through the earlier human period of which there are only archæological, ethnological, and philological evidences.

9.—THE PLACE OF IDEAS IN KNOWLEDGE.

Although knowing is never mere feeling, it is still necessary to distinguish between simple knowing and the consciousness of knowing. Simple cognition is common to the lower animals and human beings, and the human common-sense acquaintance with familiar things and their habitual actions, which does not need expression through language, may be regarded as a direct development of the intelligence of the lower animals. There is, in either case, a real relation of idea to object-matter; but the only consciousness is of the object-matter; not of the idea, as such, and still less of the relation, as such. Ideas do not become cognisable in themselves until they are symbolised by terms and connected through propositions, and, even when this advance has been effected, the relation of idea to object-matter remains obscure. It seems frequently to be confused with quite different relations, such as that of mental to material object-matter or that of attribute to entity; while the idea itself is sometimes allowed and, in certain types of idealism, is systematically compelled, to take the place of its own object-matter.¹ On the other hand, in the pursuit of physical science, ideas are wholly subordinated to perceptions which indicate relations of observed phenomena, and their scientific use is a matter of necessary practice, in which the

¹ The fact that Locke defines idea as "whatsoever is the object of the understanding when a man thinks," while an important section of his scheme is headed "ideas considered with regard to their objects," is a classic illustration of a wide-spread confusion of thought. My view is that ideas should be always "considered with regard to their objects," though psychology has also to consider their own character and origin. Locke's definition of idea is an excellent definition of what I mean by object-matter, a synonym for which would be thought-object.

scientist may take little, if any, theoretical interest. It is here that philosophy of knowledge is necessary to supplement physical science, and would be so even if our only certain knowledge related to the material world.

Thought, either expressed or understood, is the substance of knowing, and knowing, when fully conscious, is an intellectual attitude self-evidently distinguished from its object-matter; that is, from things or facts or values as known. While that sort of knowing which consists in true believing involves theoretically the absolute truth of single judgments, an idea, as the knowing of an object-matter, is always a relative mode of knowing, implying indefinitely numerous possibilities of judgment *about* that object-matter. It has not the definite sort of truth which may belong to a single statement, but has a far higher potentiality of true representation.

A statement in clear terms is either true or false; but an idea may be better characterised as either scientific or non-scientific. The scientific character of an idea is expressed formally by the proposition that its object-matter exists; but, if the object-matter does exist, it must have a variety of relations in the system of natural reality,¹ and the various propositions which state these relations, being themselves potentially contained in the idea, are much more important than the formal asseveration of existence. Non-scientific ideas are not necessarily false ideas. They are of two very different kinds, which may be termed fictitious and fictional respectively. Fictitious ideas are those which refer to mythical beings or to fallaciously-conceived things or occurrences. Fictional ideas, on the other hand, are those which are or may be concerned with naturally-imagined persons and events; these being treated as though they were historical, when in fact they are not historical, but may have great value as truthful illustrations of human nature and its environment. Both fictitious and fictional ideas *seem* to have correlative object-matters objectively existing; but fiction frankly admits the non-reality (not the non-verisimilitude) of its creations, and the object-matters of superstitious belief tend to disappear in an age of science. Hence practically all the ideas familiar to common sense and sober literature may be taken to have real object-matters, and the first purpose of philosophy is to clearly identify and concurrently classify these object-matters.

¹ The universe itself must be somehow related to any one of its finite constituents, including any human idea formed of it.

An idea is, of course, relatively invalidated, or its real object-matter relatively obscured, when it is made either the subject or predicate of an erroneous belief ; but this does not necessarily destroy its scientific value. Granting that we have learnt to use it in many true connexions, it remains, on the whole, a scientific idea. Thus, while scientific ideas and true judgments are both instrumental to knowledge, the ideas are the more comprehensive instruments ; each being a centre of many connexions with other ideas, which connexions may be made explicit as some whole group of judgments, while no limit can be set to the possibility of adding new and true judgments to the group in question.

10.—THE INALIENABILITY OF THE RELATION : IDEA TO OBJECT-MATTER.

Neither scientific truth nor substantial reality is conceivable outside of the integral relation of thought to matter thought about. Nothing whatever, not even the simplest element of sensation, the most absorbing shock of emotion, or the most imperious resolve, not even any notion or judgment or idea, as such, can be known except *as* object-matter and *by means of* some correlative idea. It is by means of notions whose object-matter lies in the past that the course of our own lives is partially brought back to us. It is by means of notions or of relatively fixed ideas whose object-matter lies in the future that certain of our purposes come to be realised. It is by means of ideas whose object-matter lies in space that our own bodies, the bodies of other persons, and all physical things, are inferred to exist, and all physical events to take place according to antecedent causes and concomitant conditions. It is by means of an idea whose object-matter consists, partly of our own imagined body, partly of our own remembered experience, and partly of our own supposed character and purposes that we (more or less) know ourselves. It is by means of ideas whose object-matters are the actions, feelings, and intentions of persons with whom we come into social contact that our private passions are stirred ; while ideas which have as object-matter the reported conduct of strangers, or the collective actions of States, parties, or other social groups elicit moral judgments of a more impersonal, though not always more unprejudiced, character. It is by means of ideas of all sorts, communicated, or at least stimulated into vitality, through spoken and written language, that divers human individuals realise their co-participation in a vast common object-matter of

knowledge—in a common objective world, a common human nature and understanding, a common heritage of culture, and (it may and should be) common ideals of personal and social, moral and intellectual, betterment.

11.—THE OBJECT-MATTER OF THE PHILOSOPHICAL SCIENCES.

That the fundamental object-matters of thought are not thoughts themselves is a judgment characteristic of experiential philosophy, with which physical science obviously agrees. Granting this, it is none the less true that thought itself is a legitimate object-matter for ulterior thought. It has to be analysed in any theory of knowledge. It has to be consciously employed for all the higher purposes of life. A large and important section of philosophical science treats of thought as formulated in divers languages and conserved in all sorts of documents and literature, which indicate the ideas and opinions, and, less directly, the institutions, customs, and aspirations of successive ages of human civilisation. Logic is more abstractly interested in this same province of discursive thought, being concerned with terms, propositions, and the valid methods of passing from certain judgments accepted as data to others forming conclusions. In these sciences of letters and logic, the object-matter contemplated is a fact of the same general nature as the contemplation directed upon it; but, though thought is here connatural with its object-matter, it is never coextensive with it. Statements and treatises about literature are a small minority among those which constitute the bulk of literature itself. A work on logic does not merely refer to such reasoning as is comprised in works on logic; it refers to the reasoning employed in any branch of science or systematic art or in everyday speech and cogitation. Thus, while the disparity between science and its object-matter is most obvious in the case of the physical sciences (*e.g.* that of astronomy, as compared with the stellar universe, including the solar system and the earth), the same general distinction is present in the case of those sciences which treat of subjective thought and reasoning, as such.

The distinction in question is also present in the case of sciences which treat of consciousness in all or any of its modes, or of psychical and physical (subjective and objective) facts in any of their relations to one another. The thought which *is* psychology is a small part of that totality of thinking and a still smaller part of that totality of consciousness to

which psychological inquiry is directed. The thought which is sociology is only one part of science, which is only one part of intellectual culture, which is only one part of the total human reality and relationships to which sociology refers. The thought which is ethics contemplates a range of thought, feeling, and action, much wider than its own embodiment in ethical theory and precept; it has or should have in view all those ideas and judgments by which any persons, on any occasions, estimate what is right or wrong conduct in themselves or others, and all those volitions whereby they subordinate, or fail to subordinate, the lower impulse to the higher purpose.

12.—THE OBJECT-MATTER OF PHILOSOPHY (OR OF METAPHYSICS).

Philosophy itself is a limited province of human-subjective thought; yet its object-matter is boundless, and is not merely liable to indefinite further discovery in a strictly "given" direction, as is the object-matter of any departmental science. When *any* science expands in its own direction, the new object-matter which it brings into view is also brought into view of philosophy; since philosophy regards the related object-matters of all departmental sciences as parts or aspects of one supreme object-matter—the real universe. But while no reality is essentially irrelevant to philosophy, it is obvious that the philosophic thinker does not and could not study the object-matters of all the sciences in detail. He is rather concerned with the whole system of science as it relatively reveals the system of reality, and is therefore especially concerned with those fundamental modes of being, knowing, and relationship which are implicitly or explicitly referred to by all sciences or by important groups of sciences or which cause the lines of cleavage between the great departments of science. The relation of idea to object-matter, or of possible truth to reality, is, as we have seen, implied in all science without exception. The chief line of cleavage in science lies between the objective and subjective planes. Common sense which is not refined by the habit of reflection and physical science which is not chastened by psychology assume a direct knowledge of physical reality. Modern philosophy, in all or most of its schools, recognises that this knowledge cannot be really direct, and certain types of philosophy, which would make all things equate either with conceptual ideas or with series and groups of sensations, deny that it is knowledge of objective reality at

all. The present article may at least suggest a somewhat new way of approaching the problem ; a way which would call for an intimate blending of logic and psychology in the metaphysics of nature. The problem is not, as it is often supposed to be, how subjective experience, as such, can be the means of knowing objective reality ; but how ideas which are essentially contemplative and which shape themselves through predicative thought (a process-content of experience) can be a means of knowing experience which is not predicative and not contemplative, and using this relatively outer experience as evidence of objective reality.

What is needed is to bring discursive contemplation into relation to actual perception, by which I understand sensation intelligently attended to, not apprehension of intellectual or moral process-contents. We must analyse that sort of perception which takes the form of passive or spectacular observation, and also that other sort which accompanies bodily or manual movements and is the sign of practical volition. We must bring the three modes of attentive consciousness—contemplation, observation, and conscious physical action—into relation with one another and simultaneously into relation with things whose existence is different alike from that of thoughts, that of sensations, and that of actions ; but to which nevertheless all our physical actions, and most of our thoughts and sensations, are consciously directed. (An important minority of thoughts refer, as we have seen, to consciousness and its modes, as such ; while some sensations have an æsthetic, rather than an epistemological, value.)

Granting that the existence of a world of material objects, moving in space, and not contingent on the human consciousness by which they are known, can be sufficiently demonstrated, the philosophic thinker will not stop short with any such demonstration, but will proceed to focus his thought on object-matter of more direct human interest. Physical things and processes are not ends in themselves, but may be inimical to human purposes and are at best necessary means to certain conscious satisfactions or ameliorations of life. The thinker may thus pass, without logical contradiction, from a naturalistic realism to a humanistic idealism.¹ Consciousness, in its various relations,

¹ Those who can see nothing analogous to reason in the processes of cosmological and biological evolution may nevertheless be able to trace a modified sort of Hegelian dialectic in the large rhythms of human history ; since this is a field in which ideas and beliefs do exist and do, through purposeful actions, individual and collective, influence the course of events.

is all that essentially matters to mankind, and that which chiefly matters is to substitute the higher for the lower consciousness—serious inquiry for self-satisfied ignorance, science for superstition, wisdom for dull-wittedness, appreciation of the beautiful in nature and art for sordid conventionality and indifference, and higher for lower ideals of human fellowship and citizenship.

While the first object-matter of philosophy is reality at large, this object-matter can be approached only through the subjective and selective processes of scientific thinking, and such thinking belongs to the second object-matter of philosophy—the human microcosm. The outer aspect of this microcosm is the collective persistence of the interacting civilised nations which form the still very imperfectly united Body of Humanity. Its inner aspect is the stream of valid ideas, true inferences, and fruitful ideals, which survive and grow from generation to generation, constantly reacting on law, custom, arts, industries, professions, and conditions of wealth and population, and forming what may be fairly called the Mind of Humanity. This too is at present a very imperfectly united Mind; yet a fuller intellectual unity of mankind should be and may be attained, and must, in its attainment, produce a correspondingly fuller unity of social and international life.

V.—DISCUSSIONS.

REALISM, PRAGMATISM, AND WILLIAM JAMES.

PROF. PERRY's Discussion in No. 94, while it advances matters in several not unimportant directions, leaves me still unconvinced of the importance (or wisdom) of making the controversy between idealism and realism the one issue in philosophy. I agree however that there are more important questions to discuss than that of whether this controversy is important. So I am content to repeat in a general way that my objection rests on the enormous number and variety of doctrines labelled realism and idealism, on the difficulty of distinguishing many called 'realism' from others called 'idealism,' and on the distressing unprogressiveness and sterility of a controversy which has endured inconclusively for hundreds or thousands of years.¹ I would point out further that 'realism' and 'idealism' are not the only alternatives, and that the actual philosophic systems can nearly all be classified as 'realism' or as 'idealism,' according as one chooses to emphasise one side or another of them. If it is not considered a fatal objection in philosophy to show that the alleged alternatives under discussion are neither (1) determinate, nor (2) clearly distinguishable, nor (3) exhaustive, that would seem to be not so much an argument for the discussion as against philosophy.

I.

While protesting therefore against Prof. Perry's way of speaking of '*the* philosophy known as idealism' and finding myself able to discriminate about a dozen 'new realisms,' I am quite willing to discuss *his* particular doctrines, which seem to me to illustrate, very subtly, confusions which are of great logical importance, and well worth analysing.

(a) To begin with that marvel of philosophic nomenclature the Ego-centric Predicament. I am relieved to hear that when Prof. Perry called it "one of the most important original discoveries that philosophy had made" that was 'writ sarcastic'. I regret

¹ For detailed argument in support of these contentions I must again refer to *Studies in Humanism*, chap. xx.

only that one who is capable of being "mildly ironical at the expense of philosophy," should not after that have suspected "an author of MIND!" of irony in suggesting that certain terms are "most useful when their meaning can be made to vary as required".¹ But while it seemed worth while to get the verbal discrepancy between *Phil. Tend.*, page 129, and MIND, No. 88, page 545, removed by Prof. Perry, I did not seriously suppose that he literally meant either that the Ego-centric Predicament was one of the most important philosophic discoveries, or that nothing at all followed from it. And in spite of what he now says (p. 242), I still cannot suppose it. For the 'Predicament' has at least the power to rule out two of the most popular opinions in the realism *v.* idealism controversy. I cannot seriously suppose that when it is acknowledged that no argument for idealism can be based on the Ego-centric Predicament Prof. Perry's realistic heart is unmoved, even though his withers may be unwrung when what I called "a strictly transcendent reality" is ruled out similarly. At any rate he can hardly regard it as unimportant that as he himself says "we must look elsewhere" for evidence bearing on the dispute between idealism and his form of realism. For that seems an important inference, though of questionable soundness. It not only assumes that the issue is a good one, that his realism must be capable of being established (as it is natural enough for him to assume), but it overlooks the possibility that the situation entitled the Ego-centric Predicament may be so ultimate a fact that it may be useless to look beyond it and impossible to give a meaning to the questions raised about it.² This possibility has the advantage of being the simpler alternative. Now simplicity and economy of thought are probably suspect to Prof. Perry as savouring too much of pragmatism, but he might note that so good a 'realist' as Mr. Bertrand Russell has been resorting to Ockham's Razor as an effective weapon for cutting Gordian Knots. However as I merely wish to remind realists of the fact that there are other alternatives to realism besides idealism, I will

¹ I fully recognise that there is always a certain amount of *unavoidable* ambiguity, entailed by the progress of science when it proceeds to discriminate further within terms that were sufficiently determinate for previous purposes. Thus the modern principle of Relativity has rendered ambiguous the old notions of 'where' and 'when,' and the meta-geometries the whole of geometrical terminology. But the amounts of ambiguity and indefiniteness which philosophers habitually have in their fundamental conceptions are far from unavoidable, and constitute a scientific scandal.

² Hence I cannot admit that Prof. Perry has shown that "the question is whether our reals, or known reals, require to be such in order to be reals" (p. 241). That seems to me to be a bad question, in point of method, because I can see no way of answering scientifically a question to which a good answer cannot be discriminated from a bad one by any scientific process.

pass to Prof. Perry's interpretation of the situation in terms of his own doctrine.

(b) Here I will not complain that Prof. Perry begs the question by describing the facts in terms of his theory. For I know too well that although logic has long regarded arguing in a circle as a fallacy and arguing in a system as an ideal of proof, it is unfortunately not yet able to distinguish formally between them.¹ But Prof. Perry appears to misdescribe the facts, because he relies too much on common speech and does not rise to a sufficiently critical level. He should have raised the general question of how we distinguish between the cases in which we say the process of perception has affected the 'object' perceived and the cases in which we say it has not. Why, *e.g.*, when the visible size of a body changes, do we sometimes regard it as having *changed* and sometimes as having only *moved*? Why, when we perceive an object that seems familiar, do we sometimes say it is *the same* as something we perceived before, sometimes that it is only *like*? If Prof. Perry would consider such questions he too would probably note, (1) that until a subject has been pretty fully explored, there is always a doubt and alternative views may be taken, (2) that the rival theories are always valued and tested by their consequences, and (3) that the decisions as to what the object perceived 'really was' is, and remains, relative to the evidence on which they rested, and to the relative value of the theory accepted as compared with others alleged then or later. A theory so accepted is plainly not an absolute truth nor a cognition of absolute reality. Its 'truth' remains immanent in man's struggle to know his world, nor is any way of taking it out of this context visible or needed. To think that because we commonly say that to get good results we must guard against certain 'errors of observation,' we must be dealing with metaphysically independent reals is surely to misinterpret a *façon de parler*. Just because it is an "elementary maxim of observation" that conditions which *have been found to be detrimental* to the value of observations must be eliminated or discounted (if possible), we must beware of erecting a metaphysic on such an obviously pragmatic distinction.

In short the pragmatist objection to Prof. Perry's theory is that it makes out no case. It may freely be granted that when we have realised that a certain relation to mind is a condition of observation, we may raise a question as to how far this condition matters, and may conceive the ideal of discounting it completely. We may even say that the question is 'left open,' if we merely mean that no metaphysical solution of it is in sight. These concessions do not touch the point. To have a meaning, questions have to be proved soluble, and ideals applicable. The real question therefore is as to the burden of proof. Does it fall on the 'realism' of Prof.

¹ Cf. *Formal Logic*, p. 360.

Perry or of the pragmatists? The latter is simpler, because it affirms nothing metaphysically. Nor does Prof. Perry make any attempt to show that it cannot adequately describe scientific procedure. His own theory, on the other hand, has to make embarrassing admissions. "The Martian canals may be in the telescope" (rather, in the *seeing*), "things generally may be created or conditioned by the human conscious approach to them," and "illusions, secondary qualities" (+ hallucinations, after-images, dreams, misinterpretations, etc.) exist. Surely this is to admit the urgent need of *discriminating* all these things from true perceptions of completely objective reality. It is not enough to say they form "a limited class," because no one knows, or can know by any realist metaphysics, where the limits of the class are laid down. Moreover scientific investigators are in practice very well aware that every observation is liable to error and none is exact, and are entitled to demand from philosophers a systematic 'theoretic' recognition of these facts, and a repudiation of their utterly unscientific claim to possess infallible knowledge of indefeasible reality.

It seems clear therefore that Prof. Perry has, after these admissions, undertaken an extremely difficult task in showing that these sources of error *are* capable of total elimination and that inerrant observation exists, and the pragmatic realism, which does not go beyond the acknowledged facts into metaphysics, occupies a far more defensible position than either idealism or Prof. Perry's realism.

(c) I agree with Prof. Perry that the conception of *independence* is 'crucial' for his theory, and appreciate his efforts to define it. But I do not see that he has attempted to answer my simple logical objection to his definition. The objection was that he defined 'independence' merely in negative terms, as the absence of certain specified sorts of dependence, without offering any guarantee that his list was exhaustive. That such a definition is objectionable is taught even in formal logic, which can generally tell thinkers what they should not do, even though it is never able to tell them what they should do. If Prof. Perry replies that a negative term must be defined negatively, I must reiterate my doubt whether his conception of independence *is* negative. It seems to me very positive, and the basis of his whole metaphysic. At any rate he has *not* told us how he proposes to guard against the possibility that his enumeration of the forms of dependence has not been complete and that his 'independence' should have been included among them. The dictum, therefore, that "entities are independent unless they are proved dependent" (*New Realism*, p. 122) contains a logical fallacy.

(d) I note that Prof. Perry wishes to add to the usual meanings of 'transcendent,' and to define it as "that which is independent of the relation to cognising or experiencing mind" (p. 243). But

what is this but to reiterate that the notion of 'independence' is vital to his theory? And if this is the meaning demanded by "the American neo-realists," I can only deplore that they should have found it convenient to import this further ambiguity into the term. For it was already hard enough to determine in any particular contest in what sense the 'transcendent' transcended experience (whose? and how?).

(e) Prof. Perry's (realistic?) distinction between "knowing" and "viewing things knowledge-wise" seems to me unnecessary, and I should dispute also that the latter "inclines the mind to the view that the cognitive angle or relationship is essential to the things". We learn, however, from the remark that (in Prof. Perry's mind) this distinction depends on the prior distinction between the *essential* and the *accidental*. Now this is one of the vaguest and most elusive of the antitheses in the philosophic vocabulary, and it would be interesting to hear how the new realism conceives it. Does it endorse the old usage, which is intelligible (though not perhaps defensible) in the context of the Aristotelian philosophy, but is now gravely suspect of being scientifically out of date? Or would it accept the pragmatic interpretation which defines the 'essence' of a thing as whatever is 'important' for a purpose and as 'accidental' whatever is similarly irrelevant? Or will it denounce these definitions as 'subjectivistic,' without giving any definite meaning to the terms? On my 'correlation' theory on the other hand there is no need to decide whether the relation of objects to minds is a 'necessity' or an 'accident'. There is a third alternative: it may be simply a *fact*.¹ Moreover, however much it is abused as an 'accident,' it nevertheless remains a fact.

(f) I fully recognise that several realists have made attempts to deal with "the special difficulties connected with illusions, hallucinations and errors," and in this respect shown themselves superior to their idealist rivals. But these attempts do not seem to me to have been attended by any considerable measure of success,² and they fail completely to grasp the enormous theoretic significance of the problem of error and unreality and the need for a general philosophic account of it. This is not the occasion to establish these conclusions, but it may be pointed out that the excuse Prof. Perry gives for ignoring the relevance of error and unreality to his theory of reality is far from convincing. To consider it "would at most lead one to a differential or dualistic view, in which one would recognise certain peculiar *exceptions* to the rule that what is known is independent of that fact" (p. 243). But is that a sufficient reason for disavowing a fact, and had he not committed

¹ I am sorry, therefore, that I cannot explain to Prof. Perry why it should be a 'necessity': ever since reading Hume, I have been unable to understand what meaning an 'objective' necessity could have.

² Cf. *Aris. Soc. Proc.*, vol. x., pp. 218-231.

himself to just this 'dualism' by admitting (p. 241) that errors of observation, etc., occur?

To sum up, we appear to have gained from Prof. Perry an explicit repudiation of reals *per se* which are strictly transcendent, and therefore unknowable, and of which the reals which we all practically recognise in our experience and treat as pragmatically real and 'independent' and superior to the unrealities in which they are involved, are only representatives, intimations, or adumbrations. And this is a great gain. It reduces the difference between the pragmatic realist and the neo-realist to a question whether it is legitimate and advantageous to allege that the 'immanents' which exhibit certain properties and behaviours when we know and observe them, must also do these (or other) things when no one is looking. To the pragmatist this allegation seems unnecessary, sterile, incapable of verification, and therefore scientifically null; it accords indeed with a certain amount of popular phraseology (which is capable of explanation), but it adds nothing to our knowledge of our world. It is therefore best regarded as an 'over-belief,' which need not be forbidden, but certainly should not be insisted on. To the 'neo-realist,' however, who has made his reals strictly immanent, a further question may be suggested as to whether they can satisfy the demands of physical science. For physics appears to postulate reals, like atoms, electrons, ethers, etc., which not only are not perceived, but cannot conceivably become objects of perception. It would seem therefore that they are strictly 'transcendent,' and incapable of being 'immanent' in experience. The neo-realist therefore must either revert to the transcendent reals he had disavowed, or he must agree with the pragmatist in construing these entities of physics as pragmatic constructions which are relative to, and justified by, the scientific success which attends their working, but should *not* be construed as metaphysical assertions. It will be interesting to see which alternative neo-realism will find more tolerable.

II.

As regards Pragmatism, it is satisfactory to learn that Prof. Perry does not dispute its psychological case for denying the absoluteness of the distinction between 'theory' and 'practice'; but it seems doubtful how far he has appreciated, and certain that he has not exhibited, the significance of this denial. At any rate he does not appreciate, even now, how hard it is to analyse what passes for 'truth' into its various component values and to determine what part various motives play in the acceptance of what appears to be a 'theoretic' truth. And it is surely an egregious delusion of the academic chair to imagine that first of all there are truth-values, established by a pure dispassionate contemplation of an absolutely objective reality, and that they are thereupon sub-

jected to deplorable corruption by the infusion of volitions and emotions and non-theoretic values, all of which it is the sacred duty of philosophy remorselessly to excise. In actual fact no 'truth' is established without the stimulation and cooperation of the very agencies which are declared to be fatal to its truthfulness, nor can the most careful analysis ever make sure that it has uncovered all the ramifications of the interests that make all belief so intimately personal an affair. If only philosophers could be got to face the facts of actual life, could any of them fail to observe the enormous object-lesson in the truth of pragmatism which the world has been exhibiting in the present crisis? Everywhere the 'truths' believed in are relative to the nationality and sympathies of their believers. It is indeed lamentable that such an orgy of the will to believe should have been needed to illustrate the pragmatic nature of truth, but who will dispute that for months say 999 persons out of 1,000 have been believing what they please, and consciously or unconsciously making it 'true,' with a fervour rarely bestowed even by the most ardent philosophers on the most self-evident truths? No improbability, no absurdity, no atrocity has been too great to win credence, and the uniformity of human nature has been signally attested by the way in which the same stories (*mutatis mutandis*) have been credited on both sides. But this, we shall be told, is all 'the fog of war': when peace is restored, truth will reappear in her pristine beauty, and events will be seen in their real outlines. What reason is there to anticipate anything of the sort? With the best intentions to be 'objective,' will not historians still find the evidence defective and contradictory and the motives of the actors conjectural? They will all therefore have to select and reject, and each will write history as the truth has appeared to him. And what would happen if the victors prevailed so utterly as to establish their version of the truth? Would not the divergent accounts be voted down as false? According to Prof. Perry some of these may deserve to be called truer, but is it not amazing that he should regard the situation as not in the least derogating from "the theoretic truth" of the beliefs that are rejected? It is not the part of Pragmatism to prescribe *a priori* what value-claims shall prevail over what; but it may at least claim to have discovered a problem of profound social significance in what is facetiously described as 'theoretic truth'.

III.

As regards the third part of Prof. Perry's paper, I am rejoiced and relieved to hear that we are to have a reprint of James's Californian Address after all, and that I was wrong in supposing that the volume of "papers having biographical or historical importance" mentioned in the Preface to *Essays in Radical Empiricism*,

portended only a continuation of *Memoirs and Studies*. I am glad also to have elicited from Prof. Perry a defence of his exegesis of James, even though it appears to proceed on the militarist principle that the best defence is to take the offensive, and implies that it was the duty of my review to provide a completely elaborated alternative to his interpretation of James's work. I thought myself it was enough to challenge his interpretation, though I regret that my criticism should have annoyed him so much. I do not however feel unequal to propounding an alternative which will bring in harmoniously all the many sides of James's philosophic activity, his psychology, his pragmatism, his interests in religion and psychical research, as well as his radical empiricism, if Prof. Perry will only tell me where precisely in the *Essays in Radical Empiricism* he regards James as having committed himself to a 'new,' as against a pragmatic, realism.

The references he has so far given are not, I think, relevant to this issue. They refer to utterances no pragmatist could fail to welcome, least of all myself. On the other hand they do *not* include James's pithy reply to Prof. Perry's collaborator, Pitkin, who had attacked him for saying that "to be radical, an empiricism must not admit into its constructions any element that is not directly experienced". James proceeded to explain that "in my own radical empiricism this is only a *methodological postulate*, not a conclusion supposed to flow from the intrinsic absurdity of transempirical objects. I have never felt the slightest respect for the idealistic arguments which Mr. Pitkin attacks and of which Ferrier made such striking use; and I am perfectly willing to admit any number of noumenal beings or events into philosophy if only their pragmatic value can be shown."¹ Precisely, *if only their pragmatic value can be shown!* *Je ne demande pas mieux*: James's realism is pragmatic, and means very much what I said *sub I*.

As for the *Journal of Philosophy* papers of 1904-1905, it may, as Prof. Perry has been charitable or rash enough to imagine that I had not read them, advance matters, if I state what was my attitude towards them at the time. I was of course greatly interested and delighted by them, as by all James's writings, and ac-

¹ *Ess. in Rad. Emp.*, p. 241-242, from the little three-page polemic which alone dates from 1907, and detracts from the entire accuracy of Capt. Knox's dates, 1884-1905, for the contents of this volume. In point of fact Capt. Knox has by no means neglected it and quotes from it as often as from *Pragmatism* (five times, as against once from *The Meaning of Truth*). I quite understand however why Prof. Perry dislikes his book on James. It is based chiefly on the *Psychology*, and exhibits James's philosophy as an application of the principles there laid down, holding that "when the main drift of that work is properly understood, the organic unity of James's teaching becomes manifest". But as the *Psychology* is admittedly James's *magnum opus* and as Capt. Knox's account is made up mostly of quotations, those who dislike it will have some difficulty in disposing of it.

cepted the great mass of their doctrine, cordially agreeing, *e.g.*, that relations are experiential facts, and that to reify 'consciousness' and to regard it as an entity was pragmatically uncalled-for. But I ventured to think that in certain passages the statement was so ambiguous or incomplete as to be liable to misconstruction. I pointed some such difficulties out to James, who with his usual candour admitted their existence; and it was on the strength of this correspondence that I doubted whether James would have republished these papers as they stood. I believe that he would have improved them greatly and have removed my scruples. But whether these scruples referred to the very points Prof. Perry regards as conclusive in favour of his interpretation of James, I cannot say until I know what these points are.

Further, I was of course aware that James had finally adopted Radical Empiricism as the technical name for his metaphysic, and regarded the pragmatic method as leading up to it. But I wonder whether Prof. Perry has also noted another fact, *viz.*, that the meaning of the term varied during different periods of James's life, and that originally it covered his 'pragmatism' and underwent progressive specialisation?¹ One must be careful therefore not to assume that wherever the words occur James means the same doctrine or the same *part* of his doctrine.

Lastly I cordially agree with all that Prof. Perry so finely says about James on pp. 248-249. It shows that where his own pet metaphysics are not concerned he can see the truth about James. But I do not see why his appreciation of James should lead him to disparage Bergson, or to accuse me of identifying their doctrines. I am of course well aware that great and technically important differences exist between them. But is it never permissible to dwell on the spiritual affinities and mutual comprehension of two great philosophers without any pettifogging insistence on arid technicalities?

F. C. S. SCHILLER.

¹ *E.g.* in the Preface to the *Will to Believe*.

THE NECESSITY FOR A UNIVERSAL IN REASONING.

SOME of Dr. Mercier's remarks in the last issue of *MIND* call for a brief reply. The subject nominally under discussion was the necessity for a universal in reasoning. Very little was said on the matter nominally under discussion. Dr. Mercier's remarks were discursive and dealt with a large number of subjects, and principally consisted of lengthy comments on a few isolated remarks of mine and on the merits of his own *New Logic*. With regard to myself, I am highly flattered that so much space was occupied in discussing anything that I may have written, but I should prefer that it be devoted to such attempts as I have made towards the advancement of knowledge and of philosophy rather than to unimportant side issues. With regard to the *New Logic*, I am strongly of opinion that the claims that Dr. Mercier has made should be carefully and critically examined. I am willing to write a criticism myself should a fitting opportunity be provided, but I cannot undertake to review his work incidentally in a discussion nominally on the subject of the necessity for a universal in reasoning.

A large number of points raised by Dr. Mercier are too trivial or too irrelevant for reply. I am perfectly willing to accept his word that he has used no arguments at all concerning Dr. Bosanquet, but merely made an assertion. So much of Dr. Mercier's discussion consists of similar assertions that I may be pardoned if I thought that they were intended for arguments. I do not propose to waste time discussing whether or no it is possible for Dr. Mercier to develop an incapacity. Had I suggested that he was developing stupidity, it would have been less open to trivial verbal criticism, if less polite. Nor do I think Dr. Mercier's lengthy exposition of the thesis that constituted authority is sometimes wrong appropriate when addressed to me who am probably noted, more than for anything else, for finding practical instances of that very stale truism. But the truism does not imply that constituted authority is always wrong.

On the subject of the *New Logic* I am accused of having written an account of the book which was a travesty, and of jumbling it up with six or seven other books I was reviewing at the same time. As this matter is somewhat important, I must ask for space to deny this statement which Dr. Mercier has made both here and in the columns of the *Nineteenth Century*. The truth is that I

have nowhere and at no time reviewed his book. An article in the *Quarterly Review* such as mine is not, and is not intended to be, a review of books; it is an account of the state of thought and discussion of the subject logic. The references to the works mentioned are incidental, and are conditioned by the general trend of the article. This does not mean that the writer of the article is at liberty to make incorrect statements of fact concerning the books mentioned at the head of the article or any others. It does mean that he is not required to give any account of them whatever beyond what is necessary to the discussion. The statements of fact with regard to Dr. Mercier's book are few but strictly accurate, and the expressions of opinion refer to his book and to no other. It is as well to add that, when Dr. Mercier made statements of fact about that article, those statements were patently and demonstrably false. For the purposes of that article the ground of interest in Dr. Mercier's logic was that, while it was an attack on scholastic and Aristotelian logic, it differed from other attacks in that it did not quarrel with the ideal of formal validity, but attempted to displace academic logic by another system, which was, in the main, equally formal. Dr. Mercier will probably not understand the meaning of this sentence, but it will be clear to every one acquainted with the trend of modern discussion. On the merits of Dr. Mercier's alternative system and on its details I have expressed no opinion. Nor can I do so now.

The one thing that calls for a brief explanation is what I meant by saying that he made a hotch-potch of the processes of induction and deduction. I somewhat regret making the statement because it involves me in a discussion which should be deferred to a formal review. I was referring, among other features, to page 203 of his book where the induction and the syllogism are compared. I quote the first of six differences.

"The syllogism has three terms and no more than three. The fallacy of four terms is the cardinal fallacy of the syllogism, and *ipso facto* (*sic*) falsifies any syllogism in which it occurs. The induction contains four terms and cannot be constructed with less than four."

I think the implication of a sentence such as this will be plain to all who claim competence in logic. It would not be reasonable to condemn as unphilosophic all who think that induction can be reduced to a regular demonstrative theory. That was the view of Mill. Nor is a logician necessarily ignorant who maintains, as does Mr. Alfred Sidgwick, that the differences between induction and deduction are unimportant and of degree rather than of kind. Although I disagree with both views, no one will dispute that both writers have a clear understanding of the implications of the views they are putting forward. They may be wrong, but they are consistent, and the respective views are clearly in keeping with the authors' general systems. But when an author, writing in 1912,

who pretends to instruct logicians in their own subject, starts off *in medias res* to inform us that there are two different kinds of reasoning, deduction and induction¹ and the differences between the induction and the syllogism are mainly to be found in the numbers of terms, propositions and premises, the description hotch-potch may be slang but it is a description. The question which naturally occurs to the reader is whether or no the author has the remotest glimmering of the number of controversial philosophical questions which are assumed. Neither his book nor his subsequent writings indicate that he has. As an example I will only mention one discussed by Mill and his contemporaries and now generally regarded as being decided in the sense opposite to Mill: Is it theoretically possible to reduce induction to a regular demonstrative theory like the syllogism? The general consensus of logical opinion may be wrong, but the point requires intelligent discussion. With these comments I must leave the merits of the *New Logic*. I have no space to explain the meaning of the phrase, the sphere of logic and the sphere of life. It is certainly not that suggested by Dr. Mercier. I must also decline now to be drawn into a discussion on any points concerning the *New Logic* not previously mentioned or dealt with by me.

A word or two is required on the question of universals. In these remarks I am considering only deduction, of which the *a fortiori* is certainly an example. Dr. Mercier suggests that I have not found the universal because there is none. To which I reply that I *have* found the universal. So far as the present argument is concerned, Dr. Mercier may, if he pleases, call it a postulated principle. I prefer the term universal and have no space to discuss the implications of the two terms. The form in which I put it, that of the major premise of a particular syllogism, is hardly satisfactory. It is like the twelfth axiom of the old-fashioned Euclid, too complicated to be axiomatic. Nevertheless I have no hesitation in saying that this "monstrosity of triple authorship" is a statement of the general truth unconsciously assumed without which the *a fortiori* would be invalid. The objection is æsthetic rather than logical. "All things greater than a given thing are greater than those which it is greater than" is simpler, but still unduly complicated. The universal we are in search of is a clear statement of the fact that size is a continuous and comparable relation. The difficulty of adequately stating it is precisely similar to the difficulty, which I have in this journal attempted to solve, of finding a satisfactory axiom of parallels. What is more important than the precise form of expression is the realisation of the truth that it is the unconscious assumption of this universal which makes the argument *a fortiori* valid and convincing.

¹ Dr. Mercier says there are three kinds of reasoning, empirical reasoning or induction, deduction, and analogy. I cannot here discuss the third item, analogy.

The necessity of finding the universal is shown still more clearly by the manner in which Dr. Mercier has fallen into a booby trap and informed the readers of *MIND* that the correct deduction from A is next to B, B is next to C,—is A is next but one to C. I do not know whether the inference is valid according to the *New Logic* but it is certainly wrong. The following is correct though I do not guarantee its completeness. In the first place the propositions are ambiguous. If *next* be interpreted *nearest*, the inference does not follow for, though B is nearest to C, there may be any number of objects further from C than B but nearer to C than A. If, on the other hand, *next* means *in juxtaposition* to the relation between A and C is only partially determined. A *may* be next to C as in the case of three spheres arranged in a triangle. The only true inference is—A is not further from C than the greatest linear dimension of B. The example is similar to the indeterminate one A is 1,000 miles from B, B is 1,000 miles from C. Whether, by verbal juggling, Dr. Mercier could obtain the conclusion A is not more than 2,000 miles from C, I do not know. Even so it would be necessary to inform him that this deduction assumes, not only that A, B and C are mathematical points, but, euclidean space. In the space of Riemann the conclusion would be incomplete and in that of Lobatschewsky it would not be true. Dr. Mercier, to obtain his conclusion validly requires in addition to the premises A is next to B, B is next to C the assumption that A, B, and C are members of a linear series, a premise certainly not implicit in the other two.

These examples well illustrate the truth that a universal, expressed or implied, is necessary for a valid deduction. From the premises A has a specified relation to B, B has the same relation to C, no conclusion can be drawn. To obtain any conclusion what is required is a universal stating the implication of the relation in question. The *a fortiori* is valid only because the universal in question implies that the same relation holds between A and C.

In conclusion it will be well to say a word or two concerning Dr. Mercier's accusation of bias. I refer to passages like the following:—

“Mr. Shelton, I am delighted to find, is perfectly willing to admit the existence of other logical forms than the syllogism, but . . . he is not willing to admit that I have discovered or described them. Willing to wound, but yet afraid to strike, he does not deny that I have done so, but he will not admit it.”

The suggestion is probably due to the fact that I, who am not a professional logician, have intervened in the discussion at all. The reason for intervention I have already explained. It was due to the attack on Dr. Bosanquet. I regarded the attack, not merely as banter and self-advertisement, but as a serious statement that Dr. Bosanquet's logic was a piece of sham learning which served

on purpose save that of bolstering up the official position of professional logicians and would-be philosophers. My own article in the *Quarterly Review* indicates that I do not attach great value to Dr. Bosanquet's treatment, but Dr. Mercier's attack did not seem to me either fair or called for. I should hesitate to stigmatise as spoof the work of an able man who was doing his best to summarise and systematise the state of thought and discussion of the time. Such a description, I thought, could only rightfully be applied to a deliberate ignoring of new and important ideas. The reason for thinking that this d'd not apply to Dr. Bosanquet I stated in the previous discussion (*MIND*, No. 91, p. 402). When I published a short paper expressing dissent from his treatment of methodology, he did not keep silent and hide himself behind an established reputation, but came out into the open and discussed the points at issue. This, from my experience of prominent men, both philosophers and scientists, especially the latter, seemed to me exceptional. I have always found that those whose treatment of any problem, scientific or philosophic, is criticised will use the weapon of silence as long as they can, and their subsequent contributions to the subject, attempting to ignore the points made against them or to wriggle round them, can often very correctly be described as spoof. Indeed, even Dr. Bosanquet himself has lapses. In the current number of the *Proceedings of the Aristotelian Society* (1914-1915) I find a paper by him entitled "Science and Philosophy." I think, perhaps, the point on that subject which transcends all others in importance is whether or no philosophy, or its branch methodology, should have any practical bearing on the wider principles of scientific thought. I have very strongly urged that such is the main function of an important branch of philosophy. In the preceding issue (1913-1914) of the same publication I argued the matter at length with practical illustrations. I have even, on that matter, the agreement of Dr. Mercier. It seemed to me therefore somewhat surprising that Dr. Bosanquet, whose qualifications to speak authoritatively on the subject of science are not very evident, should have thought that he was adding to the discussion on the relation between science and philosophy, while ignoring the one point involved therein of any general interest.

It is as well, so far as space permits, for me to be thoroughly candid in stating how Dr. Mercier's work affects me. The only incident which would bias me against Dr. Mercier's work occurred after I intervened in this discussion. It happens (possibly Dr. Mercier did not know, but Mr. Carveth Read could have informed him) that the essential and central point of much of the work that I have been putting forward is the direct bearing of philosophy, and especially of that branch of logical theory generally known as methodology, on the practical problems of present-day science. I have illustrated that thesis, in season and out of season, continually and systematically, by contributions to the advancement of science

more solid than serio-comic dissertations on sour milk. In the February number of the *Nineteenth Century* Dr. Mercier published an article which contained, though an unconscious caricature, substantially the same idea. When I suggested plagiarism, he stated that the idea was in the *New Logic*. It would not matter if it were, as the publication of the central idea and some very important examples dates back to 1910.¹ As a matter of fact, though the *New Logic* runs to more than 400 pages, that point-of view is not at all prominent in it, indeed is scarcely there at all. I do not mean that there is not an expression of opinion that logic might be useful in scientific work or that one or two particular views current in the scientific world are illogical, I mean that there is no systematic attempt, or indication or promise of a systematic attempt, to show a definite practical relation between logical and philosophical theory and the problems of practical science. I have to be particularly emphatic that that idea is *not* to be put to the credit of the *New Logic*.

On the more purely logical side it is nearly a matter of indifference to me whether or no Dr. Mercier's logic is what it claims to be. Indeed, it would help my case better if it were. I do not compete with Dr. Mercier in the extravagance of the claim I put forward. I do not talk of the effulgence of the new methodology. But I do claim to have put forward a definite and important contribution to the advancement of knowledge. I have also sometimes asserted that the difficulties I have encountered in obtaining a hearing, the lack of interest, clear discussion, intelligible criticism, fair treatment and reasonable appreciation on the part of the academic world, is greatly to the discredit both of men of science and of philosophers. If, therefore, Dr. Mercier had done good work in pure logic, and, notwithstanding the financial stability and other advantages implied by a recognised position in another branch of knowledge, had encountered similar difficulties, he would be a valuable ally. On the other hand, if the claims Dr. Mercier has made are unfounded and absurd, the fact that Dr. Mercier makes such extravagant claims without reasonable ground can easily be used to discredit a more modest but genuine claim. In that case my view of Dr. Mercier would be similar to that which he, supposing he had made a valuable discovery in medicine which his colleagues would not notice or accept, would hold of a noisy quack who had extensively advertised something apparently similar but valueless. In which category Dr. Mercier is to be classed is not a question on which I can express an opinion incidentally in a discussion such as this. I have no personal reason for deciding one way or the other

¹ See particularly articles in the *Journal of Philosophy*, the *New Quarterly*, the *Journal of Geology and Knowledge* during the years 1909, 1910. See also *Oxford and Cambridge Review*, January 1912.

apart from an objective opinion on the merits of his book. But I may be allowed to repeat the opinion that, after he has made such extraordinary claims, the matter should be thoroughly and critically investigated.

H. S. SHELTON.

MR. STRACHEY'S DEFENCE OF MR. RUSSELL'S THEORY.¹

MR. STRACHEY's article does not appear to me to remove any of the difficulties in Mr. Russell's position, which I have in the main understood in the sense in which Mr. Strachey himself interprets it.

(1) Mr. Russell's two main principles are the theory of private and independent sense-data, and his general theory of knowledge, and it is therefore unfortunate that Mr. Strachey has omitted to consider the difficulties which arise here from (a) Mr. Russell's ambiguous application of his own clear and necessary distinction between sense-data and sensations,² and (b) the fallacy which (I still think) lies in his definition of knowledge by description,³ and which, unless it is removed, tends to vitiate seriously the later conclusions drawn from this definition; but until we are given a clear and final deliverance on these two points, any criticism must obviously be largely tentative.

(2) But it has always appeared to me that Mr. Russell's distinction between "Knowledge by acquaintance" and "Knowledge by description," to which Mr. Strachey calls attention (p. 16) is radically wrong, and one which, although certainly valuable when we are dealing loosely with some of the broader aspects of the phenomena of knowledge, has no foundation in strict theory, to which, of course, we must come in the end; its only justification is some measure of harmony with conventional usage and opinion. There are not, that is, two entirely different kinds or modes of knowledge, one of which is applicable to facts or truths, and the other to (*e.g.*) sense-data or emotions; one involving, the other excluding, judgment. The essential character of knowledge, on the contrary, is continuously the same throughout the whole course of its development, although that development exhibits many highly contrasted phases; knowledge, *i.e.*, is always a body of judgments,⁴ which tend to find their expression in propositions, and until a judgment, however simple or even rudimentary, is formed, no content before consciousness can, in the true sense of the word, be said to be *known*—to be an object of *knowledge*. Sense-data or emotions (to keep to Mr. Strachey's examples), therefore,

¹ MIND, Jan. 15, pp. 16-28.

² *Ibid.*, Vol. XXIII., p. 251.

³ *Ibid.*, p. 253.

⁴ If not, preferably, a single continuous judgment.

merely and purely in themselves and apart from some ideal¹ content, can never be *known*—in the strict sense of that word, whatever other character our consciousness of them, again purely in themselves, may be found to have. And therefore it appears to me that of the two senses in which Mr. Strachey (p. 16) asserts that we may use “know,” his first sense only can properly be maintained, the second, when it is real knowledge at all, being merely an imperfectly distinguished and incompletely analysed phase of the first; but there is not space, even were it necessary, to cite the arguments necessary to establish this position, which indeed, in my opinion, is made patent by the slightest introspection.

If Mr. Strachey can succeed (in the first instance) in isolating before his consciousness any sense-datum, emotion, or other content, or any group of these purely as such, and devoid of any ideal elements, he will, I think, find it impossible to say—“I know this sense-datum,” in the proper sense of the word “know,” and to stop there; he must go on, if it be knowledge that he has, to form a judgment, however rudimentary, involving some additional and ideal elements—if it be only that the content exists, if only for himself.

I am not saying, of course, that our consciousness of such contents *must* take the form of knowledge, but only that as soon as it does so it comes at once under Mr. Strachey's first sense of “know” and we “know that . . .”. It is impossible to know sense-data or emotions, and at the same time to exclude absolutely all judgment, as in Mr. Strachey's second sense of knowing, simply because the mind, in all its proper knowing activities, inevitably and invariably falls into some judgment process.

And with this characteristic unity of knowledge there goes the corresponding unity of that reality which knowledge always apprehends—for knowledge can be (in the end) of reality only, and of nothing else, however incomplete that knowledge may be. There are no gaps, *i.e.*, in knowable reality like the one which Mr. Russell, *e.g.*, postulates² between sense-data and the “real” physical world; but this is another fundamental point whose discussion lack of space forbids.

(3) I may, however, mention a few incidental points concerning judgment and propositions on which I cannot follow Mr. Strachey; evidently he distinguishes between proposition and judgment, for we find (p. 17)—“When I make a judgment, my mind is in a certain relation to a proposition, and Mr. Russell holds that I cannot make the judgment unless I understand the proposition”. It would be surprising if Mr. Russell really holds the view here at-

¹ Of course, in the logical sense.

² For there is, I think, no proof, in Mr. Russell's works, of this principle. “It so happens,” says Mr. Strachey airily (p. 20).

tributed to him; for surely a judgment is possible without our making (not to speak of understanding) a proposition? In normal social life of course, judgments invariably lead up to propositions; but are these also involved in the judgments of animal and deaf-mute intelligence, or (at the other extreme of the scale), of genius, poetic insight, and the divine omniscience? So far then is it from being true, as Mr. Strachey says, that "I cannot make the judgment unless I understand the proposition," that on the contrary no proposition is at all possible, not to say intelligible, until a judgment has been formed as its necessary precedent basis and root.

If then we thus distinguish judgment from proposition, I cannot concur in Mr. Strachey's view (p. 18) that "the sense datum is a constituent of the *proposition*," and (p. 20) "Concepts are the constituents of the *proposition*". Should we not rather say "constituents of the judgment"¹—the proper constituents of the proposition being the corresponding terms?

Then Mr. Strachey further holds, regarding knowing what words mean, that "This knowledge must be acquaintance" (p. 18)—of course in Mr. Russell's sense of the term. Let us see what follows from this view. It seems plain, from the whole of Section I., that "what words mean" (since this is known by acquaintance) must be "something other than a fact or a truth," and must further involve "no judgment or beliefs". Now to apply this view to Mr. Strachey's own example (p. 19)—"Bismarck was an astute diplomatist". Here, says Mr. Strachey, knowledge what the word "Bismarck" means, "must be acquaintance"; but it cannot mean the particular Bismarck, for in that case "no one but Bismarck himself can understand" the proposition; the word then must have other meanings—"first chancellor," "chief adviser," etc.; and therefore knowledge "what the word means," when these are its meanings, must be acquaintance "of the kind we have of feelings and sense-data" (p. 17)—must involve "no judgment or belief"! Happy Russellians, who enjoy such a logical Paradise!

(4) With regard to Mr. Russell's general theory of a *priori* knowledge, I think Mr. Strachey altogether misses my point. Even if we admit "that a *priori* knowledge is never concerned with things that we can experience" (p. 26), still Mr. Strachey brings forward nothing which helps me to see that Mr. Russell successfully explains how we ever obtain a *priori* knowledge of anything else either. Indeed, I am not sure that Mr. Russell regards any explanation whatever as possible or necessary;—"it must be taken as a fact," he asserts;² and his whole philosophical

treatment of a *priori* knowledge is the more curious, coming from so eminent a worker in a field into which this knowledge enters so largely; and what Mr. Strachey calls "my version of Mr. Russell's

¹ That is as a result, not a process, here.

² *Problems*, pp. 164-165.

theory" is only what appears to me to follow logically from all Mr. Russell's arguments on the point, in support of which, however, Mr. Strachey himself adduces nothing additional.

(5) Finally, as to space, physical and private, I may again accept Mr. Russell's meaning to be that given by Mr. Strachey (p. 24) "that we can know the relations between physical space and private spaces . . ."¹

But my difficulties still remain. What is the character of these relations? If they are not spatial (and not temporal) what other character have they? And if they are spatial, how do we know them? Obviously, not by acquaintance, for we do not know one of the terms (physical space) by acquaintance, between which these relations subsist. The only mode of knowing them, therefore, is by description; and then it at once follows, in conformity with the whole of Mr. Strachey's first section, that either

(a) The relations in question are "in some relation to something, or have some property" (p. 16)—or

(b) These relations are "facts or truths"; and if so, which?—or

(c) Our knowing these relations "amounts only to a knowledge of truths about" them.

And these alternatives appear to me either to involve circular arguments, or to be hopelessly vague, especially when we consider the *a priori* nature of much of geometry.

In conclusion, it would be interesting to know if Mr. Russell would endorse the limitations of his system implied in Mr. Strachey's "blind man" illustration (p. 19), which again raises the question whether, if this be all we may expect from philosophy in general (as distinct from any special theory), the game is worth the candle? Is philosophy foredoomed never to attain a clear and true, even if limited, vision of the real whole?

J. E. TURNER.

¹ Mr. Strachey appears to imply that Mr. Russell does not mean that "we can know the relations between parts of physical space"—an important admission, if adhered to.

THE A FORTIORI ARGUMENT.

I HAVE no wish to intervene in the general controversy¹ between Mr. Shelton and Dr. Mercier on the value of Formal Logic, but only to add a word on one particular question which the latter has raised in his postscript,² viz., the nature of a *fortiori* reasoning. Here Dr. Mercier's position would be considerably strengthened if he would give some further, or clearer, explanation than I have as yet been able to gather from him, what he himself understands the principle of such reasoning to be.

Take the arguments:—

(1) A is greater than B, B is greater than C, ∴ A is greater than C;

and (2) A is next to B, B is next to C, ∴ A is next to C;³

or (3) A cheats B, B cheats C, ∴ A cheats C.⁴

What is the principle that discriminates (1), which is valid, from (2) and (3), which are invalid? To those who, like Mr. Shelton, hold that the *a fortiori* argument can be expressed syllogistically, a valid inference of this kind turns upon a nexus of relations which is seen to be universal, and therefore to be true in the particular case of A, B and C: and the distinction of such valid reasonings from those which are similar in form but invalid is not difficult. We see directly (*e.g.*) that relations of the kind specified between A and B, and between B and C, necessarily involve, in the case of (1) *supra*, a corresponding relation between A and C, and that in the case of (2) and (3) they do not.

This apparently does not satisfy Dr. Mercier. In his *New Logic* (p. 307), he holds that "the conclusion can be reached, and is in fact reached, from the postulate alone, without praying in aid a *principium* of such gigantic dimensions, for which the postulate gives no warrant whatever". The criticism raises two points: (*a*) that the major or universal premise (the *principium*) is not derived from the postulate ('A is greater than B, and B than C'); (*b*) that it is unnecessary to the inference.

On the first point it is perhaps enough to say that the major premise of a syllogism is not usually 'warranted' by the minor, or derived from it.

¹ MIND, N.S., Nos. 90, 93.

² *Ibid.*, No. 92, p. 567.

³ Mr. Shelton's instance, MIND, N.S., No. 93, p. 78.

⁴ Dr. Mercier's instance, *New Logic*, p. 309.

The second point is of course the crux. If the canon above suggested be rejected, what other is proposed in its place? "The rule," says Dr. Mercier (*ib.*, p. 308), "is that any term may be replaced by any other term . . . that *for the purpose of the argument* is implied in it; and the words italicised make all the difference;" *i.e.* (presumably) the difference between the valid and invalid arguments is this, that in the former the third term may for the purpose of the argument be substituted for the second, while in the latter it may not; and this difference is made to depend on some difference in 'the purpose of the argument' in the two cases, legitimising this substitution in the one case and not in the other. Naturally therefore we ask, 'What is the difference between the "purposes" of the two arguments?' Unfortunately (unless I have overlooked the passage), Dr. Mercier does not tell us *totidem verbis*. Instead, he goes on to tell us what the 'purpose of the argument' is only in the case where the inference is valid, and leaves us to infer, if we can, what it may be, and how it may differ, in the other cases. In the case of the valid inference, "What," Dr. Mercier asks, "is the purpose of the argument? It is not to establish a relation between A and B, or between B and C, for those relations are already given. It is to find what else than B is greater than C; what else than B, A exceeds in magnitude; or what the relation is between A and C" (*ib.*, p. 308).

Now for the other case, *viz.*, the invalid argument: "If A cheats B and B cheats C, it is equally clear that C is not, for the purpose of the argument, implied in B" (*ib.*, p. 309). It is, I should reply, indeed clear that the inference 'A cheats C' does not follow: but the problem is to know how that *non sequitur* is dependent on any difference in 'the purpose of the argument,' and Dr. Mercier does not (as far as I have been able to find) reveal this.

If he does not, one may suspect the reason to be that he cannot. Whether your inference about certain relations follows or does not follow from the premises cannot depend upon your object in attempting to draw it, or in starting the inquiry. It depends upon a difference between the relations themselves and their nexus or implication with one another. Let us suppose the contrary, *viz.*, that the question 'valid or invalid' *does* depend on the 'purpose of the argument,' and not on some essential difference between the kinds of relation referred to: then it would seem that, in order to distinguish valid from invalid, we are entitled to neglect the difference between the kinds of relation, and to look only to the purpose, assured that in any argument whose purpose is parallel to that of an argument which we already know to be valid, it will be valid to draw a parallel conclusion. But this expectation, of course, breaks down at once. In the case of the valid argument above instanced, our 'purpose' was (according to Dr. Mercier), knowing that A is greater than B and B than C, "to find what else than B is greater than A; what else than B, A exceeds in

magnitude; or what the relation is between A and C". But surely, knowing that A has cheated B, and B has cheated C, we might set out to inquire with precisely parallel 'purpose' (or more properly speaking 'purposes'), *viz.* to find who else than B has cheated C; who else than B has been cheated by A; or what the relation is between A and C: or again, knowing that A is next to B, and B to C, we might desire to find what else than B is next to C; to what else than B, A is next; and what the relation is between A and C. Nevertheless, however parallel the purposes of our arguments, and however parallel the premises, the fact remains that the latter in the one case yield the conclusion 'A is greater than C,' and in the other cases obdurately refuse to yield the parallel conclusions 'A has cheated C' or 'A is next to C'. Now how can this divergence be made to depend on a 'purpose' which is strictly parallel? In the absence of further enlightenment from Dr. Mercier, must we not look for its explanation to the one feature in which the two cases diverge, *viz.* the kinds of relation involved, which are clearly relations of magnitude in the one case, of honest dealing in another and of proximity in a third?

If so, however, then the hinge of the valid argument is not its purpose, but a nexus of relations which is necessary—therefore universal: and the exhibition of the argument syllogistically is an attempt to avow candidly the part which our awareness of that nexus plays in it, not to complicate the reasoning by unnecessarily 'praying in aid a *principium*' of 'gigantic dimensions'.

That attempt may perhaps be open to criticism on other grounds into which I do not here enter. But in any case Dr. Mercier's readers have a right to ask some alternative explanation of the argument in question more satisfactory than any which (as far as I can find) he has yet given. Either he can give this or he cannot and should retract. Unless he adopts one course or the other, his readers will no doubt form their own opinions as to whether the charge of 'spoofing the public' lies nearer to Mr. Shelton and his friends or to Dr. Mercier.

W. A. PICKARD-CAMBRIDGE.

THE INDETERMINATION OF MEANINGS.

I SHOULD hardly venture to intervene in the interesting little dispute between Mr. Sidgwick and Captain Knox,¹ were it not that the latter is just now too busy serving his country to reply, and that I not only share his admiration for Mr. Sidgwick's epoch-making work in logic, and agreed with his criticism, but also feel competent to continue a discussion which, though it appears to turn on a small point of phraseology, is by no means unimportant. For it brings out very clearly how necessary it is for logicians always to state quite explicitly whether they are trying to follow the course of actual reasoning or to reflect on it *ex post facto*, and how impossible it is to make one doctrine do for both standpoints, as has hitherto been done.

Now in this case we are all agreed that logical terms contemplated *per se* have a certain indeterminateness which is inseparable from their use as instruments for the conveying of an actual thought. No term could have any use worth mentioning if it could only be used once and never again. It must therefore be transferable from case to case; and as a word its (dictionary-) meaning must be sufficiently elastic to bear such transfers. A certain elasticity and variability of meaning then, being what fits a term for use in a plurality of contexts, is a *virtue* in a word, and is just as essential to its usefulness as is the definiteness which enables it to convey meaning at all. But it has the defects of its qualities. If it is to be capable of conveying sensibly different meanings on different occasions, we cannot guard in advance against the possibility that on some future occasion the meaning if it is intended to convey is *not* that in which it is understood. This is what logicians have meant by calling it an 'ambiguous' term, though it is clear that such potential ambiguity can be, and should be, distinguished from real ambiguity and actual failure to convey the meaning intended.

But whether this 'plurality of senses,'² of which admittedly terms are and must be capable, be called a 'defect' or not—and on this question I incline rather to Captain Knox than to Mr. Sidgwick—it has nothing to do with the problem of avoiding or detecting *real ambiguity*, alike whether it is considered before or after the judgment. A careful and honest reasoner always considers, both

¹ Cf. Nos. 93 and 95.

² I have suggested this name for it, cf. *Formal Logic*, chap. ii., § 8.

before he judges, whether his terms are likely to convey his meaning, and whether they *have* conveyed it, after he has judged. And it would appear to be true, as Mr. Sidgwick points out, that before judging he should be alive to the necessary indeterminateness of his terms, and that he may then regard it as a 'defect'. It is certainly one of the risks he takes in judging, one of the things that may lead to his failure. But it does not seem to me to follow that we should therefore complain "of the judgment in general". Mr. Sidgwick will agree that we should not complain of judgment in general merely because it takes risks. For he has himself taught all who have understood him at all that without risk of error there is no chance of truth. And what he is here complaining of is not an incident in judgment in general (*i.e.* in *all* judgments), but in *the form* of judgment. For *ex hypothesi* the actual judgment is not yet formulated, and all that as yet the reasoner need feel is that, like all instruments, his own, the significant term, has limitations. But need he resent this, unless he unreasonably expects it to work miracles?

Now suppose that he takes his unavoidable risk, and performs his act of judgment. He then either succeeds in conveying his meaning by means of the words of his choice, or he does not. If he does, the former indeterminateness of his terms has become irrelevant; it has disappeared from the actual judgment and no longer exists for the purpose in hand: his words have shown themselves capable of performing their function and have conveyed his meaning. He has therefore no reason to complain of them, and the more simply and elliptically they have succeeded, the more economically have they done their work, the greater is his triumph and the more he can pride himself on his skill in the use of language. If, on the other hand, he has failed, it does not follow that he should blame anything so general and remote as the elasticity of terms. It may be that his hearers were too stupid or ignorant, or that he has himself to blame, because he chose the wrong words for his purpose.

Such then being the situation when fully analysed, ought we to condemn human language with epithets like 'vague' and 'defective'? No doubt both terms can be justified; but the 'defects' indicated are so akin to and inseparable from excellences, that it seems better to avoid them. The more so as they may easily produce confusion by looking too much like a concession to an intellectualist 'logic,' which has not the slightest interest in human thinking and no regard for its actual procedure.

F. C. S. SCHILLER.

VI.—CRITICAL NOTICES.

Wissenschaft und Philosophie : ihr Wesen und ihr Verhältnis.
Von Dr. PAUL HÄBERLIN, Privat-Dozent an der Universität zu Basel. Zweiter Band : Philosophie. Basel : Kober C. F. Spittler's Nachfolger, 1912. Pp. 426. Unbound, 7.50 fr. ; bound, 10 fr.

THE first volume of this work was reviewed by me in the pages of MIND some time ago (vol. xxii., pp. 260-268). On the whole, I can safely say that the second volume not only maintains but surpasses the interest of its predecessor.

To begin with a correction, it turns out that, along with other critics, I was mistaken in the expectation that Dr. Häberlin intended to give us in this volume a piece of constructive 'Weltanschauung'. He now makes clear that from the first he had set himself only the humbler task of inquiring whether the demand of philosophical natures for a 'Weltanschauung' can be satisfied at all; and, if so, what are the most general characters of this satisfaction and how it is to be attained.

The first volume had analysed 'science,' or the 'theoretical' form of experience. The second begins with an analysis of 'practical' experience, 'Handlung' and 'Wertung' being the chief topics, and then goes on to show how both modes of experience are combined and transcended in *metaphysics*, or the synthetic construction of a 'Weltanschauung'.

Dr. Häberlin's analysis of 'Handlung' covers, in effect, the same ground as Mr. Bradley's articles on 'Volition,' familiar to readers of MIND. But whereas for Mr. Bradley the dynamics, so to speak, of the will-process depend on the contrast between 'existence' and 'idea,' and the tendency of the idea to realise itself—the theory taking its cue from ideo-motor action—Dr. Häberlin lays the stress on the play of feelings, their tensions, conflicts, and mutual reinforcements. His analysis of this side of will-action is exceedingly minute, and the complication of feelings which he traces even in a 'gewöhnliche Handlung,' surprising. The main points of the analysis—taking volition as a psychical series or process—are these. The starting-point is a complex experience, partly theoretical, partly practical, *viz.*, a situation apprehended, and a 'negative feeling' towards it, *i.e.*, a feeling of dissatisfaction, disapproval, aversion, which supplies the dynamic

element or 'Ausgangs-motiv' (pp. 9, 10). The instability of this experience gives rise, at the next stage, to an idea of an end ('Phantasie-Vorstellung eines Endes') prefiguring an alteration in the given situation such as to carry with it the promise of a 'positive feeling,' *i.e.*, a feeling of satisfaction or approval, implying a 'positive valuation'. This feeling, so far, is present only in idea ('vorgestellt'): the agent thinks of himself as satisfied by the realisation of the end. The end, however, must not be an object of 'mere' imagination, qualified as unreal or unrealisable. It must be definitely thought of as a 'reality' pressing and demanding to replace the given, a reality which can be, will be, ought to be actual, a reality before which the given is on the very point of yielding.

With the idea of an end we get a great complication of feelings. In the first place, the end, thought of in anticipation as real, as capable of being realised, and as possessing positive value, gives rise at once to an actual feeling of positive quality. This 'Vorfriede' (p. 43) is essential. Without it we should not act, for mere discontent with the given does not necessarily move us to action. At the same time, *quâ* not yet realised, the end inspires also a negative feeling. The delay, the divorce of the end from existence, is unpleasant. But yet again, in so far as we think of the end as capable of realisation and about to be realised, there results a further positive feeling. Hence there are always 'drei Begleitgefühle der Zielphantasie' (p. 15), two positive, one negative. All three are necessary if the will-action is to be completed. If there were no positive feeling, born of the anticipation of satisfaction, there would be no 'wish' for the end; if there were no 'Hoffungsgefühl,' born of the thought of the end as realisable, we should be too discouraged to act; if there were no dissatisfaction with the end as not yet realised, it would be nothing more than a mere play of fancy. The situation may be further complicated when to the thought of the end (Zielphantasie) there is added the thought of myself as realising the end (Ausführungsphantasie), with its full train of varying feelings. And even this does not exhaust the analysis. Complicated as these feelings are, they become infinitely more complicated when between the thought of the end and the given situation there is interposed the thought of a chain of means, which carry positive or negative valuations in their own character, as well as from the point of view of their practicability, apart altogether from the positive value which irradiates upon them from the end, as desired, and the negative feeling similarly extending to them from the end as not yet realised. In the tension and stress of all these feelings, some inhibitory in effect, others impelling, there must be a *plus* of forward-driving feeling. The presence of such a positive balance constitutes 'willing' (p. 21). Given this, there follows the second stage of the process of action, *viz.*, the transition from intention (thought

of end) to realisation. Dr. Häberlin fairly and squarely acknowledges this transition to be incomprehensible (p. 23). Indeed, one of the chief difficulties of the introspective analysis of the will-experience lies just here. It is agreed that the process is from 'existence' to 'idea of an end,' and from the idea to the 'realisation' of the end in a transformed existence. One school of Psychologists, to which both Mr. Bradley and Dr. Häberlin belong, treats the process 'phenomenologically' as a sequence of happenings to be analysed and described as exhaustively as possible in its stages and components. The other school—we may instance William James—regards this as Hamlet without the Prince of Denmark. It wants to know why the transition from idea to end takes place, and supplies the dynamic force in the shape of a unique, unanalysable will-element, variously named attention, consent, fiat, desire, or simply will.

Dr. Häberlin, then, proceeding descriptively, specifies as the next stage at this point of the process a peculiar muscular sensation of tension ('Spannung'): 'Es juckt uns in den entsprechenden Muskelpartien' (p. 23). He refers, I take it, to sensations of incipient movement—the impatience to 'be up and doing' which, in its extremest forms, appears in men and animals as a diffuse, aimless, bodily restlessness. But the chief interest of Dr. Häberlin's account lies in the continuation of the minute analysis of shades of feeling for this, the execution-stage, of volition. Whatever our anticipations in the planning stage may have been concerning the feelings which we should experience in realising means and end—there are now fresh feelings, positive or negative, accompanying the actual movements and tending to facilitate or inhibit the progress of action. Again, these feelings, in all possible varieties, may attach both to the kinæsthetic sensations as such and to the outward observation of the movement, *e.g.* by the eye. Further, these feelings may conflict with one another. For example, a movement may be kinæsthetically pleasant, but visually ugly and therefore unpleasant. Finally, as realisation proceeds, there is a relaxation of tension, in itself always positive in feeling-tone, though that tone may be swamped in the total complex of feelings. Throughout, the feelings accompanying the stage of realisation continue and absorb, or cancel, or conflict with, the feelings of the earlier stages, in ways too manifold and complicated to be described and classified in detail.

Dr. Häberlin next passes on to deal with a number of troublesome cases, which we are, on the one hand, tempted to treat as 'Handlungen' but to which essential characteristics, as measured by the above account, are lacking. Such are all kinds of 'Fehlhandlungen' (p. 50), in which either some other result is achieved than the one intended, or no result at all, the action being left incomplete, or in which the end, though attained, is no longer valued as it had been in anticipation. Again, there are all the actions which

differ from the normal type in that many elements remain unconscious or subconscious. Under this heading, the author discusses some of the phenomena to which Freud and his disciples have drawn attention, where repressed or forgotten purposes and desires manifest themselves in actions, either directly or in disguise. Lastly, there are the inward actions, voluntary recall, voluntary trains of thought, etc.

On Dr. Häberlin's argument up to this point, two comments may be made. (1) I do not wish to deny that large-scale volitions (if I may so call them), involving the construction and carrying out of a complicated plan with countless subsidiary details and adjustments—one might think, *e.g.*, of the initiation and realisation of some movement for social reform culminating in legislative measures—would exhibit all the complications of feelings which Dr. Häberlin traces. But when it comes to such simple actions as those which Dr. Häberlin instances, like the picking up of a sheet of paper from the floor (p. 6), I, for one, entirely fail to verify by introspective analysis the vast complication which the author's dissection exhibits. Of course, if this simple action were to be performed by me with philosophical pomp and solemnity, being expanded and drawn out like a telescope, very likely all these feelings would be generated in the course of it—*under these conditions*. But my point is just that, in the absence of these conditions, no such complications occur, and that to credit an action with all this apparatus of feelings when manifestly they are not there, is illegitimate. There is really no justification for ignoring the simplification, or shrinkage, of conscious detail as an action becomes secondarily automatic, such as most simple actions have become. I should not myself say that they cease to be 'voluntary,' because they run off mechanically, as it were, once the cue is given in the perception of the displeasing initial situation. But this is no reason for forcing on them, in the face of plain introspection, the complicated pattern of large-scale volitions. Of course, there is a difficulty of principle involved which goes very deep. When we have to deal with a vast range of facts, all lumped together under 'action' (with the implication that the action is 'voluntary'), and varying from actions so simple as to be all but completely automatic, and so brief as to be over 'in a flash,' to actions so complex as to require full attention to every detail, and so prolonged as to occupy days, months, or even years of life—it is next to impossible to lay down any 'norm' or 'standard' or 'essence' which shall really do justice to all. If we try for the barest minimum characteristics which would still allow us to identify a process as a 'volition,' we shall get far too poor a concept to fit the more complicated and significant volitions. But at least we can help ourselves by amplifying our pattern, however inconsistent in a sense that may be. But if we begin at the other end and make our pattern to fit

the most complicated volitions, then in working down the scale we shall be dropping 'essential characteristics' all along the line, and soon cease to have anything fairly recognisable as a volition at all. It is perhaps a choice between the devil and the deep sea—I prefer the deep sea, Dr. Häberlin has chosen the devil.

(2) Dr. Häberlin's device for escaping these difficulties is to appeal to the unconscious. If elements, which on the above analysis ought to be there, are not observable, they may be declared to be present unconsciously or subconsciously. When applied to simple volitions in order to make them conform to the pattern of complicated volitions, this seems to me pure mythology. Even when applied to the phenomena of forgetfulness and repression it is no more than a convenient fiction. Often, when an experience, which at the time of its occurrence remained 'unconscious' (if that can be called an 'experience'), seems to be subsequently remembered, I strongly suspect that the memory is spurious. At least, it would be a difficult matter to prove that we are dealing with what is genuinely memory. And even if we were, that does not explain what is meant by speaking of an experience, either at the moment of its occurrence, or during the interval, as 'unbewusst'. The term consciousness (*Bewusstsein*) is quite troublesome enough without being burdened with these additional puzzles. Some writers divide the 'mind' or 'soul' into an upper, 'conscious' stratum, and lower, 'subconscious' strata. Others effect the same division by talking of supraliminal and subliminal 'consciousness'. Some treat the subliminal or subconscious as the rubbish-heap of the mind, and the supraliminal as all-important, the home of rational thoughts and intelligent purposes. Others reverse this valuation, regarding the conscious stratum as the mere surface-play of marionettes, the strings being pulled by forces in the unconscious depths of the soul. Some regard consciousness as a mere condition or state, a bare 'awareness' as distinct from its 'content' or 'objects'. Others treat it as an agency capable of responding to an environment, selecting its own contents and manipulating them in various ways. To some consciousness is only a 'relation,' a peculiar grouping of the entities which are said to be 'in' it, or 'present to' it. To others consciousness is just its objects or contents; it is feelings, thoughts, volitions, meaning by these terms *what* is felt, thought, willed. In fact, the term is near becoming a nuisance in philosophy, for this is only a brief selection from the list of possible meanings and uses. And the net result, I submit, is that no definite meaning can be attached to the assertion that an experience exists or occurs un- or sub-consciously.

A comment may be permitted here on one of Dr. Häberlin's illustrations (pp. 62, 63) in support of the occurrence of '*nachweislich unbewusste Absichten*' (p. 65). A friend of his had the habit of letting every match burn right out by turning it round and seizing

it, after a while, at the burnt-out end. Dr. Häberlin made a bet with him that he could not resist this habit for twenty-four hours, and, sure enough, he soon caught his friend, engrossed in conversation, letting a match burn out. The argument is that Dr. Häberlin could here infer from the outward action the operation of the unconscious purpose, and that the friend, when confronted with the burnt-out match, could recall his action. Now, in the first place, before we can accept the recollection as relevant, we ought to be told exactly what was recalled. He may well have recalled holding the match and watching it burn out; I doubt, whether he recalled an intention to do so. And only the latter was, *ex hypothesi*, unconscious. But, secondly and chiefly, the real point, surely, if we are to argue about unconscious intentions, is: What had become of the consciously formed intention to win the bet and check the habit? Was that repressed? or merely forgotten? And, in either case, in what sense, if any, was it unconscious? The hypothesis of unconscious mental processes becomes distinctly complicated when it has to provide, as here, for an unconscious conflict of two intentions, neither of which becomes conscious at the critical moment, but of which one is operative whilst the other is not.

I pass on to the section on valuation (pp. 93-152) which contains much that is interesting and much that is perplexing. Dr. Häberlin sets out with the principle that 'Every feeling is a valuation,' it being understood that what we value is always some object 'theoretically' apprehended, or, in other words, that feelings always accompany perceptions, thoughts, imaginations, etc., on which, thereby, they confer values. One could have wished that Dr. Häberlin had discussed at greater length both this identification of valuation and feeling, which, as he must know, is challenged by many thinkers, and the range and nature of what he calls feeling. He goes on at once to divide things valued into those which are good and those which are evil, according as the feeling is 'positive' or 'negative'. And under 'positive feeling' he lumps together terms as diverse as beautiful, agreeable, good, enjoyable. Some attempt at a classification of values and feelings, some discussion of the relation of 'feelings,' in the author's sense, to pleasure and pain on the one side, and the emotions on the other, would have been desirable. Instead he proceeds, first, to connect every valuation with an action: "positive value is possessed by everything which 'attracts' or 'pleases'". Alternatively, we may just as well say: by everything in so far as it is wished or willed" (p. 107). And, next, he distinguishes in all feelings modality, intensity, polarity and 'quality'. Modality is determined by the character of the object on which the feeling confers value, *e.g.*, we distinguish a feeling for colour from a feeling for sound or for logical elegance in argument. Differences of intensity are obvious. Polarity means that feelings always go in couples—a positive and

a negative confronting one another in every valuation. 'Quality' in a special technical sense, given to it here (p. 107) by the author, depends on whether we value an object for its own sake (intrinsic value) or for its relation to us (extrinsic value). Lastly, in every feeling, and therefore in every valuation and action, there are operative, in last analysis, two fundamental tendencies (*Tricbe*) of polar character, but never separated, though one generally outweighs the other. These are (1) a tendency to identification with one's 'other,' to surrender oneself, merge oneself in, become one with, the other; and (2) a tendency to self-affirmation, to contrast oneself with, and oppose oneself to, the other; to assert oneself over him. It is the distinction of self and not-self in the language of feeling—'Einfühlung,' to use Lipps' term, *into* others, contrasted with insistence on self *against* others. For example, the former tendency requires other persons with whom we may identify ourselves, hence the various interpretations of the world in whole or in part as manifestation of a personality or personalities. The self-assertive tendency, on the other hand, accounts for the opposition of subject and object in knowledge; it is shown also wherever we appropriate things and use them as means for our ends. According as each tendency succeeds or is balked, we get the most fundamental values ('Ur-werte,' p. 116), positive and negative,—what Spinoza would have called the *sthenic* and *asthenic* emotions. The details in which the operations of these two tendencies are worked out are distinctly ingenious, but cannot be followed up here. The main point is that, towards any given object, we have a 'Doppeleinstellung,' inasmuch as both tendencies are inseparably operative, though differing in intensity and in success according to the nature of the object, and reacting on one another in constant oscillation or even conflict. Their joint manifestation Dr. Häberlin calls *Eros*, and indeed the experience of love, mingling ecstasy of self-surrender and jealous claim to exclusive possession, complete identification with the other and a supreme sense of self-expansion, is perhaps the best example of what the author means. After all even common experience bears witness to the paradox: *les extremes se touchent*.

I have space only for a brief summary of the last two chapters of the book, though they are full of interesting and striking thoughts. Having surveyed, in the first volume, the world of theory (science) and in the first chapter of this volume the world of practice (valuation), we are now in a position to see how a 'Weltanschauung' is possible. The first step is to reflect that both theory and practice involve an ideal, a norm, a truth. In theory, what is once true is always true. In valuation, what is once valuable is always valuable. There is, thus, a demand in both spheres for constancy and permanency. We strive after stability both in our scientific judgments concerning the nexus of objective facts, and in our feelings and valuations. In both we

want to be self-consistent, true to ourselves—and this in the most literal, which is here also the deepest, sense. In both cases it means surrender to, and identification with, an 'Ought': to think as we ought to think, to value as we ought to value. Thus only can we secure *in principle*, and in spite of failure and weakness in detail, that our truth, practical and theoretical, possesses consistency and universality. For the attainment of the practical norm, the best method, according to Dr. Häberlin, is identification with a personality greater than oneself, divine or human, historical or contemporary, individual or social. The corresponding method for the attainment of theoretical truth is to adopt that system of judgments which is most comprehensive and internally most coherent and stable.

But above scientific theory which gives us 'facts,' and feeling which gives us 'values,' stands metaphysics which gives us as a 'Weltanschauung' the union of both, the synthesis of fact and value. Such a synthesis can no longer be treated as a matter of 'knowledge' (Erkenntnis); it can be neither demonstrated nor disproved by an appeal to the methods or the evidence which establish conclusions in the sphere of science. But, on the other hand, it is not due to 'faith' either—least of all faith according to the schoolboy's definition of it as 'believing what you know isn't true'. In Dr. Häberlin's language metaphysics is an achievement of 'imagination' (Phantasie); it is the supreme insight which holds real and ideal in one, which reads the world of values into the world of facts. In detail, our versions of this vision may differ. We may treat facts as the symbol of values or we may treat values as the goal towards the realisation of which the fact-world strives, ideals thus being the inherent law of the world process, giving to it both driving-power and direction. The synthesis yields the paradox that, whilst every fact is a value, yet the value is also a norm which goes beyond the fact, as given and actual, so that, measured by it, the fact falls short. Yet what it falls short of is its own true nature, and from this point of view the world-process is a world-progress, and all our action is but one form of this realisation of a world of ideals which both inhere in facts and transcend them. To gain this systematic insight is the supreme aim of the philosophic passion. Such a system, when achieved, is, like a work of art, a product of the whole man, an expression of the concentrated striving of the whole 'philosophical personality,' the characteristic of which is just to experience any division and conflict in the universe as a disharmony within its own self, and thus to seek a solution in a vision of the whole as self-consistent and harmonious.

It is clear that the type of synthesis here sketched by Dr. Häberlin is akin to the vision of the Good of Plato's philosopher, to Aristotle's 'Theoria,' to Spinoza's *scientia intuitiva*, to the 'intuitive reason' of the German Idealists of the last century. It has

affinities to all these—perhaps most strikingly to Fichte—because it is offered only as a general outline, a pattern that could in detail be worked out in many ways. It is a view of philosophy with the principle of which I find myself wholly in sympathy. It sets metaphysics above both ‘science’ and ‘practice,’ and thus takes its stand against one-sided abstractions. Of the two, science is the more tempting and the more dangerous, for the cry that philosophy should become ‘scientific’ or else cease to vex serious-minded men, is abroad in the land. Hence Dr. Häberlin devotes a long section (pp. 288-351) to a demonstration—not novel in its details—that science cannot suffice to furnish a ‘Weltanschauung’ in the sense demanded.

One important question arises here with which Dr. Häberlin does not deal. In discussing it briefly in the form in which it has been debated by English thinkers, I ought to say that ‘theory’ is commonly used by them to cover both Dr. Häberlin’s ‘science’ and his ‘philosophical synthesis’ or ‘speculation’. Prof. Bosanquet has recently reminded the members of the Aristotelian Society that philosophy is the product of the whole man. Mr. Bradley, on the other hand, has lately pressed the question what this ‘philosophising with the whole of one’s nature’ exactly means, and how it is to be done. It is common ground, I suppose, that philosophy takes as its subject-matter the whole universe from every side of it which appears in human experience, and in that sense deals with the whole man. But the point at issue seems to be: Is philosophy *quâ* ‘theory’ or ‘speculation,’ an attitude of the whole man, satisfying him, so far as successful in its quest, on all sides of his nature, or is it itself but a particular interest, seeking satisfaction but in the one-sided direction of truth or self-consistent thinking, even though it be about the whole? Mr. Bradley and Prof. Bosanquet take the latter alternative, Dr. Häberlin’s view is, I think, committed to the former.

In conclusion, I should like to draw attention to Dr. Häberlin’s interesting discussion of the point that a philosophical synthesis is both through and through personal and individual, and yet in claim universal and absolute. Every genuine philosopher is bound to believe that only one philosophy is absolutely true, and that his own (p. 381 ff.). He must look upon himself as a mouthpiece of the Absolute. A more than merely human reality voices itself through him. Yet he will not expect ever to see his synthesis adopted by all men, nor can he shut his eyes to the fact, that other philosophers make the same claims for their divergent syntheses. But there cannot be divergent truths, all equally ‘absolute’. Dr. Häberlin’s various suggestions towards a solution of this ‘aporia,’ do not impress me as very successful. The best is that this very divergence, this very necessity which compels a thinker to uphold his synthesis and others theirs, ought to be a problem to him, and to be provided for in his synthesis. ‘He will be con-

vinced that there is meaning and purpose in the difference of personalities, and that the rival philosophies, notwithstanding their partial errors, have their significance *im Garzen der Kultur* (p. 381). But if this suggestion be taken seriously, it surely makes untenable the view that every philosopher will and must claim absolute truth for his theory. True, it will be absolute to him in the sense that 'er kann nicht anders': it is the best he can do. True, again, that he will insist to the uttermost on the recognition of that aspect of the universe which it is given to him to voice. But if he is at all self-critical, he will surely confess that even the best he can get is not absolute, and that there must be genuine truth even in divergent philosophies, just because the Absolute utters itself through each.

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The Philosophy of Change, a Study of the Fundamental Principle of the Philosophy of Bergson. By H. WILDON CARR. Macmillan & Co. Pp. xii, 213. 6s. net.

STUDENTS of Bergson have learnt to expect much from Mr. Wildon Carr, and no disappointment awaits them in his latest volume. It is the outcome of lectures delivered in the University of London, and its contents are exactly described by its title,—a merit not as common as it should be.

The purpose of the book is firstly, to state the essential principle as clearly and concisely as possible, and secondly, to trace its application to the urgent problems of philosophy. The principle, of course, is the originality of change—that is to say, change does not happen to things, but things are derived from change, and the treatment is developed as follows.

The Method of Philosophy (chap. i.).—Intuition is the method of philosophy, intellectual apprehension is the method of science. The too general idea that intuition spells vagueness and indefiniteness is wrong. A philosophy based on intuition neither despises nor opposes science, though it claims to penetrate where science is, "by a natural disability," unable to go. A free activity—if such a thing there be—can never be comprehended by science which is wholly deterministic. We feel that we are free, either, then, we are mistaken, or there is a fact which science cannot comprehend. But how can the feeling of freedom be proved to be illusory? only by saying that science is deterministic and therefore unable to comprehend it. But this determination may be only the intellectual picture of a reality which is free, the apparent rigidity may be contributed by the nature of the intellectual apprehension. In that case an intuitive philosophy must supplement science.

The attitude of the intuitive philosophy towards science is not antagonistic; it shares in the general tendency of philosophy and science in these times to draw closer together. Mr. Carr illustrates the tendency of physical science to take on a metaphysical character by an account of the Principle of Relativity in its bearing on the principle of the philosophy of change, *viz.*, that movement is original, and that "things are derived from movement, and movement is not a quality or character that things have added to themselves". Thus the latest science appears to demand a reconsideration of the notion that things are more original than movement.

The method of science and the method of philosophy are directly contrary. "The distinctive character of this philosophical method . . . is that it apprehends the whole before it apprehends the parts, and that it interprets the parts as a dissociation within the whole. Science, on the other hand, seeks to apprehend the ultimate elements which come together in the whole; it endeavours by more and more successful analysis to isolate the constituents and discover their affinities; it conceives the whole as an association of its parts" (p. 19).

The Doctrine of Intuition (chap. ii.).—The new way in philosophy reverses the direction of the old. It claims to be "the only method that makes possible a true metaphysic, that is, a knowledge of the source of the reality we study in physics" (p. 20). The attempt to comprehend reality by concepts is "radically vicious". But there is an intuition of reality. What, then, is it? It is the apprehension by the mind of reality directly as it is and not under the form of a perception or a conception, nor as idea or object of the reason, all of which are by contrast intellectual apprehension" (p. 21-22). Of intellectual processes perception stands nearer to intuition than does conception or reasoning. But perception is distinguished from intuition because it is limited to the present moment and is never pure, but is always mixed with conception and reasoning.

There is one object in the physical world which we know from within—our own body. In this knowledge, if anywhere, reality will be found free from the forms imposed upon it by intellectual apprehension. Here we find "a consciousness of the actual life we are living as we live it" (p. 27). This life is known to us as an indivisible change, "a movement experienced and not watched from without".

The supreme value of this intuition of the self by the self is that it shows why there are two ways in which everything can be apprehended.

Intuition is distinct from introspection. Intuition grasps life before, introspection only after it has broken up into "states that exclude one another". It is more reliable than intellect, because intellect gives us only immobile states and there is no way of

deriving movement from immobility. Our own life we know from the inside and from the outside. Our outside or intellectual knowledge is "the device by which we observe reality as an external sphere of activity" (p. 38).

Here the fundamental principle of the philosophy of change is reached. "In the consciousness of our own life as duration we have direct and immediate intuition of reality as original movement or change; and all those elements of experience which philosophers have tried to distinguish as original—sense data, *a priori* judgments, ideas—are derived from this movement; they are interruptions of it, or views of it, whose form is due to the selection that the intellectual nature of our activity exercises on it" (p. 39).

It remains to apply the principle to the dark places of philosophy.

The Mind and the Body (chap. iii.).—There are two reasons why it is impossible to believe that the brain produces the mind. (1) There is no common measure of mind and brain, and (2) the consciousness which arises in connexion with cerebral process is not consciousness of the cerebral process itself, but of something quite distinct. In other words, the physiological changes in the brain are causal and are complete without the intervention of consciousness, but the psychical series is not causally connected, and uses no physical energy; while "knowledge of what is outside the brain cannot be manufactured by a process inside the brain". Epiphenomenalism escapes the difficulty of the conversion of energy but affords no basis for knowledge. Nor does psychological idealism escape the problem of the relation of body and mind; if *esse is percipi*, the mind cannot produce the body nor the body the mind. Direct causation being rejected we are left with the alternatives, psycho-physical parallelism or interaction. The former Mr. Carr rejects, the latter he does not deny, but prefers to view the problem from the standpoint of action, and to regard the relation of mind and body as a union of solidarity, that is, "in action they are solidary—one cannot function, has no meaning, without the other" (p. 68).

Matter and Spirit (chap. iv.).—In living beings life manifests itself as "a continuous dispersing of activity from a centre". This central tension is the mind; the body is the interruption of the active dispersal. Mind is temporal and not spatial, it is experienced as duration; body is spatial and is experienced as extension. By perception we experience physical reality; by memory psychical reality.

Two questions arise in considering the relation of mind and body: (1) Why do perception and memory only happen when the brain is functioning? (2) What are the contributions of the body and mind respectively to memory and perception? The answer to the first question is that perception and memory are there in the interests of action which the body must carry out, and since the

brain controls muscular movement it appears to produce perception and memory as well. As to the second, the work of both body and mind is selection, the body selects perceptions, the mind memories. Memories are not preserved in the body but in the mind.

Why cannot we have a mind without a body? Because mind and body are solidary, and what affects the one affects the other. How do two orders of reality completely different unite? Probably "no answer can be given because the nature of the union may be unique".

Perception and Memory (chap. v.).—When the problem of perception is viewed from the standpoint of action the real question is seen to be *not* how we can know things outside our minds, but why do we perceive some things and not others? This selection which marks perception is due to the body which is organised to exclude whatever does not concern the individual actions. Our past experience is preserved in the unconscious; this is pure memory, but another form of memory "exists for us in habits which automatically repeat, act over again, our past" (p. 93). On this view, it follows that perception and memory are different in kind and not in degree; their end is not mere knowledge but action. What is perceived and what is remembered "do not come into existence when they come into consciousness" (p. 93). Consciousness is the convergence of life on action, it is an attitude of attention to life.

We find next an interesting comparison of Bergson's doctrine of perception with that of the new Realists, and with that of Prof. Alexander in particular, and an explanation of the sense in which the word "image" is used by Bergson—"the image is not something detached from the thing, something that resembles or represents it, or is a truthful copy of it, but the object or thing itself" (p. 106).

What are pleasure and pain? The body is at once an object and an instrument of perception. So every perception is an affection as well, because the instrument and the object are combined in the act. The whole problem is difficult, but, in general, pleasure goes with an undivided activity of the organism, pain marks an organism divided against itself.

The World of Actions (chap. vi.).—Are the outlines of things parts of reality, or are they due to the selective activity of our mind and body? The latter supposition is accepted, and in consequence the question arises, What, then, are things? The answer is, they are our eventual actions. This follows from two principles: (a) that reality is an original movement; (b) that consciousness is a tension or holding together of a flux. So things are "contractions of reality affected by memory".

The two problems of the nature of general ideas and of the laws of association of ideas are next considered from the point of view of action. The associationist problem is clearly turned upside

down ; there is no longer an association of atomic constituents, but a dissociation of a continuous reality. " Things are a schematical or diagrammatical form of action." Time and space are also schematic, they are not qualities of reality, but means of apprehending it. The classical difficulties of infinite divisibility are discussed. Mr. Carr holds that the mathematical reconciliation of infinite divisibility and continuity does not touch the crucial point as to movement. " It is not the infinity of the divisibility, but the divisibility itself that is in question."

The ultimate choice is between things and movements. " If there are things—ultimate unalterable constituents of reality—there are no real movements ; if there are real movements there are no things " (p. 144). The ground for declaring movement to be ultimate and things derived is found in the actual experience of change. Physical science stands all the same. But it cannot comprehend life, for " life is an order of reality that is original, matter an order that is derived " (p. 145).

The Vital Impulse (chap. vii.).—The problem of life is analogous to that of body and mind, for just as the brain *appears* to produce the mind, so matter *appears* to produce life. In reality also matter is the instrument of life, as the brain is that of the mind. Mechanism and vitalism both fail to account for the duration of living forms (*i.e.* the continuation of their past in their present) and the creation of new forms. The idea of duration and the idea of creation are the very essence of Bergson's doctrine of the vital impulse. This life-impulse is a tendency, one in its origin, which has split up and branched into divergent paths. One feature in evolution is specially examined—the relation and nature of instinct and intelligence, or the knowledge of life, and the knowledge of matter. It is maintained that instinct and intelligence are different in kind and cannot be derived one from the other.

The supreme boon which the philosophy of change offers is, in a word, freedom. " It is the final refutation of the Calvinism which has weighed so heavily on the human spirit " (p. 197).

God, Freedom, and Immortality (chap. viii.).—What has the new philosophy to say of the Ideas of Reason ? " What is meant by saying that the ultimate reality of the universe is spiritual and not material ? " " The reality of the universe is a soul that endures—perhaps we ought not to say that it is a soul but that it is soul or spirit " (p. 178). Of this spirit matter and space are but a present limit, lacking real duration.

Life is an ascending movement, and so the inverse of Carnot's law. But both the ascending movement which is life and the descending movement which is matter must be implicit in original reality ; this is the principle of dichotomy.

Can a spiritual reality thus conceived satisfy our religious, moral and emotional needs ? It neither excludes nor includes the belief in a personal God. But it excludes the attribution of timelessness

to God. "Instead of a God for whom all is already made, to whom all is given, we have a God who acts freely in an open universe" (p. 189).

Immortality is neither denied nor affirmed by this philosophy, though it denies a timeless and unchanging soul. On the other hand it gives in the doctrine of pure duration a hope that individual histories may be somehow preserved.

The Idea of a Reality Which Creates and Is Free (chap. ix.).—Free action is creation, and is the opposite of mechanical repetition. Two things distinguish vital and conscious action from action which is mechanical and unconscious. (1) The conditions of a conscious action cannot be repeated. (2) In conscious action there are new determinants of a non-mechanical kind, to wit, purposes. It is vain to look for freedom in science. The intellectual view is unavoidably rigid and deterministic. But there remains intuition. The free act is the manifestation of the whole personality. But of freedom there is nevertheless a condition—"this condition is an open universe". The notion of an Absolute which is perfect and complete is compared with that of an Absolute which is a life that endures.

"This metaphysical conception of life as the reality which creates and is free is actually moulded on experience. The philosophy of change is not therefore a logic-tight system, complete and perfect, from which we can take nothing and to which we can add nothing. It has nothing systematic about it. It has not an answer for every question. It is a method which distinguishes different problems and examines them separately. Philosophy, like physical science, is capable of infinite progress to ever greater perfection" (p. 213).

Such in bare outline, is the argument of *The Philosophy of Change*; I can only hope that my own private difficulties have not altogether prevented me from doing it justice. For I must needs suspect the adequacy of my exposition, since I am unable to accept Bergson's view of the intelligence, and so, lacking the initial vision, I no doubt fail to understand. And further it seems to me that the "unconscious" wilts visibly under the strain put upon it in the theory of memory. All the same, after reading nearly all the works put forth on the new philosophy for several years, I am sure that Mr. Carr's book stands almost, perhaps quite, alone in interest, lucidity and importance.

ARTHUR ROBINSON.

A Theory of Time and Space. By ALFRED A. ROBB. Cambridge University Press. Pp. vi, 373.

EVERYONE who read two small pamphlets by Mr. Robb, one called *Optical Geometry of Motion*, and the other with the same

title as the present work, will be greatly pleased that the more elaborate treatment foreshadowed in them has now been completed and published. The pamphlets were reviewed in *MIND* by the present writer recently. Mr. Robb's new book is most important and interesting, but it is not easy to review in a non-technical way. After a short philosophical preface, Mr. Robb introduces us to the notion of 'Conical Order'; this part of the book is practically a reproduction of his second pamphlet. He then lays down a number of postulates about *before* and *after* such that the elements in the field of these relations shall stand in a conical order. From these postulates he deduces two hundred and six theorems. The upshot of the matter is that the field of *before* and *after* is shown to be a manifold in which any element can be represented by four coordinates; three of these have the properties that we commonly ascribe to spatial coordinates, the fourth has those that we commonly ascribe to time. But, since the elements of which this geometry is composed are simply defined as constituting the field of *before* and *after*, and the postulates defining *before* and *after* are themselves obtained by considering the temporal relations of events, Mr. Robb concludes that he has succeeded in defining space in terms of time.

No philosopher interested in the foundations of physics can afford to neglect Mr. Robb's contentions. I think I shall best make Mr. Robb's position clear to the intending reader if I discuss shortly the following points: (1) The meaning of Conical Order and the reasons for supposing that instants stand in a conical order; (2) Some of the special notions introduced and defined by Mr. Robb, and their relations to the geometry of the cone; (3) The real philosophical meaning and importance of work on Mr. Robb's lines. I shall assume, what I have seen no reason to doubt, that the theorems really do follow from the postulates. I may remark in passing that those who are interested in symbolic logic will find it a very good exercise to state the postulates of the book formally and then to prove some of the more important theorems for themselves by the methods of *Principia Mathematica*.

(1) A relation is said to generate a conical order when it is transitive and aliorrelative but not connexive, and fulfils certain other conditions. A very simple example of a relation that fulfils the first three is the relation *north of*. It is transitive; for the fact that Cambridge is north of London and York north of Cambridge implies that York is north of London. It is aliorrelative; for no place is north of itself. It is not connexive; for two places, though each north of other places, may be neither north nor south of each other, since both may lie on the same parallel of latitude. Such relations are not serial, but it may be possible to find classes of terms in their fields which shall be in serial relations. *E.g.* the places on any one meridian of longitude are in a series. Mr. Robb calls the order generated by certain relations *conical* for the following

reason. Suppose we take any definite direction in ordinary space, and make every point in space the vertex of a cone with a fixed vertical angle and an axis parallel to this direction. Let us call α the relation that any point within the upper part of one of these cones has to the vertex of the cone. Any point in the lower part of one of these cones will have the converse relation $\check{\alpha}$ to the vertex of the cone. Then α is a relation which is transitive, aliorelative, and non-eonnexive. The first two properties obviously belong to α ; the last can be seen to belong if we notice that there are many points which are neither in the upper nor the lower cones through a given point. All such points have neither the relation α nor $\check{\alpha}$ to the given point. The surfaces of the cones through any point P are called respectively the α - and β - subsets of P. (Mr. Robb uses β to stand for $\check{\alpha}$.) We must notice that the cones are only used as illustrations, and that they only provide a satisfactory illustration for a three-dimensional manifold of elements. Mr. Robb's manifold is four-dimensional, but this does not prevent him from defining a conical order and α - and β - subsets in such a way as to agree with the geometrical illustration when we imagine the number of dimensions reduced to three.

So far we have merely been dealing with the logical properties of certain relations of which the relation α is an illustration. Now we come to a question partly of fact and partly of convention. Mr. Robb assumes that the relation of *before* and *after* between events is conical and not serial as has generally been supposed. This means that he assumes that of two events one may be neither before nor after the other, and yet may not be simultaneous with the other. Why should he assume this, which seems so paradoxical at first sight? His argument comes to this: I have two different means of judging about the temporal relations of events. If I directly experience the events I can make direct judgments about their temporal relations. If I do not directly experience both the events, but believe that one causes the other, I can be sure that the cause must proceed the effect. This Mr. Robb takes as an axiom.

Suppose that at a moment t_1^a I send out a flash of light from A to a mirror at B. Let it reach B at t_2^b and be immediately reflected back to A, reaching me there at t_3^a . Then the axiom tells me that t_2^b is after t_1^a and before t_3^a . And direct experience tells me that t_3^a is after t_1^a . But it seems that no influence travels faster than light. Hence no influence leaving B at t_2^b will reach A before t_3^a . We have therefore no reason to suppose that t_2^b is before any moment at A which is before t_3^a . Similarly no influence that leaves A after t_1^a can reach B at t_2^b . We have therefore no reason to suppose that t_2^b is after any moment that is after t_1^a . We have therefore no reason to suppose that t_2^b is either before or after any moment at A that is between t_1^a and t_3^a . And neither of our criteria enables us to judge that t_2^b is simultaneous with *any*

moment at A between t_1^a and t_3^a , still less to decide *which* particular moment it is simultaneous with. It is as a rule tacitly assumed that $t_2^b = \frac{1}{2}(t_1^a + t_3^a)$. Mr. Robb rejects this suggestion because, as we know, it leads when combined with the *facts* (as distinct from any theory) of relativity to the paradoxical results that events, simultaneous when observed from one system, are not so when observed from another. He holds that any assumption that leads to such a result must be rejected, because it is a fundamental law of logic that 'a thing cannot both be and not be at the same time'. I am not quite clear how Mr. Robb means to apply this principle to the present case. If he means that on the ordinary theory two events e_1 and e_2 are both simultaneous and not simultaneous at the same time, because in S_1 they both occur at t while in S_2 the one nearer the origin occurs later than the one further off, I should suppose that the answer is that there is no logical difficulty, because no one supposes that their simultaneity and non-simultaneity subsist at the *same* time. This would be inconsistent with the Theory of Relativity which refuses to recognise a time common to both S and S_2 , but simply holds that the laws of physics can be stated equally well in terms of the local time of *any* non-accelerated system. If, on the other hand, Mr. Robb means that if logic is to apply to all systems there must be a time common to all systems, I do not agree. We should only get into logical difficulties if from any system S' we were forced to judge that incompatible events occurred simultaneously in a system S . But incompatibility in physical matters is always spatio-temporal; *e.g.* we should need to judge that there was a green and a red flash at the same time and *in the same place* before we should find any logical difficulty. Now the ordinary theory of relativity never forces us to do this. It is only simultaneous events which occur at *different* places in one system that can be judged to be successive from another, and it is only successive events that occur at *different* places in one system that can be judged to be simultaneous from another.

However this may be, Mr. Robb prefers to assume that the relation of *before* and *after* between moments really is non-connexive, *i.e.* that certain moments are neither before nor after each other and yet not identical, and that this is not merely a matter of our inability to find a satisfactory test for their temporal relations in certain cases.

Before leaving this part of the subject I have two criticisms to make. (a) One would like to know how Mr. Robb is defining cause and effect. If he is merely defining it as it is commonly defined in physics as functional correlation, I fail to see why cause must proceed effect, or what precisely this means. If he is using it in some other sense we should wish to know what is the characteristic that distinguishes a cause from an effect. It must of course be an observable one, or the criterion will be useless. (b) Mr. Robb in this introduction does not make quite clear what he con-

siders to be the relation between (i.) the linear set of events in a single experience; (ii.) the linear set of events that happen to a single material particle; and (iii.) the statement that the only simultaneous events are those that happen in the same place. Are simultaneous psychical events in my mind in the same place; and, if so, in what place? Hardly in that of any *one* material particle in my brain; but, if in several, then simultaneous events do happen at different places.

(2) A good many of Mr. Robb's special notions can be easily illustrated from the geometry of the cone, though we must always remember that this forms an incomplete illustration, because the manifold of moments is for him four-dimensional. Thus an *Optical Line* is represented by a generator of a standard cone; an *Inertia Line* is represented by a straight line through the vertex that falls within a standard cone; and a *Separation Line* is represented by a straight line through the vertex that lies outside a standard cone. If we regard the axis of the cone as representing time elapsed (using time in the ordinary sense), and the three other coordinates as representing space passed over in the ordinary sense, we can see that an optical line represents the successive positions of an element of a wave-front sent out from the vertex at time 0 and travelling in vacuo, provided that the vertical angle of the standard cone is $\tan^{-1} c$ where c is the velocity of light. An inertia line represents the motion of any actual unaccelerated particle, assuming that nothing can travel faster than light. A separation line cannot represent the motion of any particle for this would mean that the particle travelled faster than light; any two points on it must therefore represent separate and distinct particles. Similarly we get three kinds of planes—optical planes, acceleration planes and separation planes. The conical analogies are respectively tangent planes, planes that cut the cone in two real lines, and planes that cut it in two imaginary lines. We also get three kinds of parallelism among optical lines.

As our manifold of instants is four-dimensional we shall have to consider *threefolds* as well as lines and planes. Here of course we cannot offer any geometrical illustration that shall be wholly satisfactory. A general threefold is the aggregate of all elements in any general plane P which intersects any general line a and of all the elements in all planes parallel to P that intersect a . (A *general line* means simply a line which is either optical, inertia, or separation, and a *general plane* means one which is either optical, acceleration, or separation. It is proved that these alternatives are exhaustive and exclusive, as can be seen from the geometrical illustrations taken from the cone.) It is found that there are three distinct kinds of threefold: these are called optical, separation, and rotation threefolds according as the general line a is an optical, separation, or inertia line.

Mr. Robb proves the extremely interesting and important result

that the geometry of a separation-threefold with his postulates is Euclidean. Before this he has had of course to introduce the notion of congruence. Congruence has to be defined differently for the different types of line, and segments on different types of line are not congruent with each other. Now the only kind of threefold that contains only lines and planes of a single type (*viz.* separation lines and planes) is the separation threefold. Hence it is obvious that only separation threefolds *could* be Euclidean. In other kinds of threefolds analogies to Euclid I, 47, hold, but they are only analogies.

At length coordinates can be introduced. We take three mutually normal separation lines in a separation threefold as our x, y, z axes. And we take an inertia line normal to this threefold as a t axis. But we must notice that, since congruence means something different for inertia and for separation segments, we cannot use the same unit for distances along the t axis as for those along the other three. What we do is to choose such a unit for our inertia coordinates that the conjugate to it (which is necessarily a separation segment) is c times the unit separation segment, where c is a constant. The constant will then be the numerical measure of the velocity of light.

(3) What precisely has Mr. Robb accomplished and what is the philosophic importance of his work? It seems to me that his results and their importance may be expressed somewhat as follows: Modern science has inherited from the founders of mechanics in the XVIIth century and from the Greek founders of geometry a certain general scheme of dealing with the physical world. This scheme treats the ultimate elements of physics as particles occupying various places in a three-dimensional space at various moments in a one-dimensional time. The time and the space are separate systems and neither is given to us in experience. This is true in three senses: (1) We never directly perceive a moment or a point. (2) We never directly perceive even aggregates of moments or points. (3) It is true that we perceive extended objects in spatial relations and are aware of the duration and succession of certain events. But our special way of interpreting these facts, *viz.* our view that the events take place at a certain moment in a single time and at certain points in a common space, is a construction and not something that can be analysed out of our sense-data. We do not perceive it, nor can it in any useful and natural sense be called a part of what we perceive.

This general scheme worked excellently in practice owing to a happy choice of spatial coordinates and to the fact that people were mainly concerned with velocities small in comparison with that of light. Accordingly its peculiar nature and its presuppositions were not much noticed until certain electromagnetic experiments were found to lead to very paradoxical conclusions. Then people were led to see much more clearly that all measurements

of distance make certain assumptions about time, and all measurement of time which refer to different places involve assumptions about spatial measurement. It thus becomes clear that we shall keep much closer to the empirical facts if we no longer start by assuming two different kinds of entities (instants with their temporal relations and points with their spatial relations). We shall do better if we start with elements of a single kind which come nearer to what we can actually observe, and by subjecting them to suitable postulates construct both the ordinary space and the ordinary time out of them. Construction here means nothing specially human. It means (*a*) that knowing approximately the results that are true we lay down the postulates that we think will give them, and (*b*) that the space and time of ordinary physics appear (with such modifications as experience demands) as special cases in the general scheme.

The great merit of Mr. Robb's work is that he has actually provided us with an alternative construction of this kind and shown us that it will fit all the facts at present recognised. And the philosophic importance of all such attempts is that, like the study of non-Euclidean geometry, they free the mind from ingrained prejudice and enable it to see that what appears a necessity of thought is often only one of a number of alternative ways of dealing with a single problem.

C. D. BROAD.

What do we mean by Education? By J. WELTON. London: Macmillan, 1915. Pp. xii, 257.

AN increasing number of teachers and educational administrators are taking a keen interest in the theoretical aspects of their work, and to such readers Prof. Welton's book should make a strong appeal. It will also serve as a useful guide for readers who are not actively engaged in education, but who desire to keep in touch with the wider movements of educational thought and practice. For both classes of students the work is valuable mainly because it is the fruit of a serious effort to view educational problems in the light of a more or less definite conception of human life. "Theory of education," Prof. Welton tells us, "cannot be separated without disaster from theory of life," and he puts his doctrine into practice with the help of much hard thinking and a long experience of educational work. His criticism of one-sided and exaggerated views is particularly valuable. If the enthusiastic advocates of educational panaceas could be induced to digest his book, the outlook for school reform would become appreciably brighter.

I wish to emphasise these merits of the book before us, because they are by no means neutralised by certain weaknesses which

may rouse a feeling of disappointment in readers interested primarily in educational theory. Such readers may agree generally with the conclusions reached, and yet feel that these do not throw much new light upon the subject. This is due, I believe, to the very abstract character of Prof. Welton's educational ideals. He lays down certain general principles, but does not apply them to the solution of concrete problems. His theory is, therefore, imperfectly coherent; it bears some likeness to a geological formation with three strata, *viz* : a doctrine of the educational ideal, a number of intermediate principles, and some reflections upon current questions. Each of these strata is valuable in itself, but there is little interpenetration. This lack of complete coherence is reflected in the structure of the book. The general plan is clear, but the various chapters give us mainly discussions of comparatively isolated questions. It follows that it is difficult to grasp the theory as a whole, especially as the exact meaning of several passages is far from obvious. These weaknesses are no doubt partly the result of an attempt to make the book at once short and readable, still I think they must be attributed in part to the lack of organic coherence in the point of view expounded.

I will try to illustrate Prof. Welton's line of argument by giving a brief outline of his account of educational science, and then making some remarks on each of its sub-divisions. A perfect science of education, he tells us, would be "a complete doctrine of educative means affiliated to a universally accepted end, based on exact knowledge of human intercourse, and continually verified by the test of educative practice" (p. 27). Unfortunately, agreement as to the end is at present unattainable, and he holds that the first step forward is a frank recognition of this fact. "The most that it seems possible even to hope is that earnest and consistent efforts may be made to realise each ideal aim which, after all efforts at synthesis, remains unresolved" (p. 40). The doctrine of the end must be worked out by each thinker for himself. "To meditate and decide upon the ultimate questions of life is the very first requirement of a true educator" (p. 33), although "the day when these essentially metaphysical questions will be settled by the agreement of all competent thinkers is certainly not within measurable, even if it be within conceivable, distance" (p. 28). It is true that a synthesis of opposing views on certain points may be attained, but such a synthesis leaves untouched the fundamental differences of view which for our purpose we must accept as final. On the other hand it is possible to develop a doctrine of educative means, that is of "the influence of educative agents upon those who are to be educated" (p. 10). This doctrine will be recognised as valid by all competent judges irrespective of their views on ultimate questions, apparently because it will be built up by methods analogous to those of physical science. It will be derived inductively from an examination of the processes and results of

different forms of education. "The hypothetical laws of educative means—If so and so be done, such and such a kind of result may be expected—can be investigated as cases of natural causation" (p. 30). "The doctrine would have three main branches—the efforts of the educator, the possible responses of the educated, and the relations between the educator and the educated that determine which of the possible responses of the latter are actualised" (p. 9).

Prof. Welton gives us a very interesting account of the difference between the investigations by which this doctrine of means will be advanced and ordinary psychological experiments,¹ and adds: "The nearer investigations keep to the concrete point of view, the more fruitful they are likely to be for a theory of educational practice. Investigations into such matters as the relative effectiveness of various methods of teaching particular subjects, of stimulating particular powers, interests and tastes, of curbing definite faults and developing definite merits, may not attain a specious appearance of exactness of quantitative statement, but the results they do give are real and directly pertinent" (p. 24).

If this account of Prof. Welton's theory of education is approximately correct, the theory seems somewhat deficient in organic unity. The distinction between a doctrine of ends and a doctrine of means may be useful for certain purposes, but it here assumes too absolute a form. As a result, neither of the doctrines does justice to the special aspect of the experience of educating with which it is concerned, because that aspect is considered in isolation from the whole. Hence the doctrines are valid only for that small part of the educator's experience in which means and ends are not inseparably combined.

The abstract character of Prof. Welton's doctrine of ends will become apparent if we take his own theory of the ultimate end of education as typical of the kind of doctrine he desiderates. In the course of the chapter on "What should be the End," he describes the ultimate aim of education as "the development of full and effective human personality—that is a life in full and admirable relations to the universe" (p. 84), or as "a relation to that highest good and true personality we call God" (p. 91), or, again, as the perfection of man's spiritual nature (p. 93). Ideals such as these assuredly have their value, but they must be given a more concrete form, and one in closer relation to educational practice, before they can become the guiding principles of educational theory. It is true that in one passage (p. 93) Prof. Welton gives us a less abstract statement of his educational ideal, but when he does so his excellent description owes more to the ethical standards generally recognised as valid by serious men than to his own abstract

¹ He apparently assumes that psychological experiments aim always at quantitative results, which is surely not the case, for instance, with many experiments on thought processes.

definitions. This involuntary appeal to contemporary ideals indicates, I think, the method by which we may hope to bridge the gulf which in his doctrine, as in most theories of education, is fixed between ultimate ideals and practical experience. The aims of education will take different forms according to the ideals of the community by which the education is carried on. These ideals require to be analysed and their value gauged, by reference to some ultimate standard, but they largely determine the actual aims and problems of the educators, and their discussion must form an important part of any satisfactory doctrine of education. The practical importance of such a discussion is illustrated by Prof. Welton's valuable remarks on the relation which the methods of a school should bear to the mental characteristics of the class from which it draws its pupils. He also recognises that education must take account of the "intermediate principles of life which are generally accepted as valid, and which form the framework of the widest common life in which we share" (p. 41). The greater part of his second chapter is, indeed, devoted to the discussion of some of these intermediate principles. Unfortunately, however, he does not use the results of this discussion to bridge the gap between his ultimate ideal and the actual work of teaching.

It may be noted as characteristic of Prof. Welton's mode of thought, that theories of the aim of education are regarded as the more or less independent constructions of individual thinkers, not as moments in a combined advance towards the systematic explanation of the experience of educators. This view explains the disproportionate emphasis laid by him upon the necessity of "meditating and deciding upon the ultimate questions of life". Surely a man may be a true educator without having definite and explicit views on questions which are "essentially metaphysical". Some of the best schoolmasters I know would certainly be puzzled if asked for a definition of their ultimate educational ideal.

Turning now to the second branch of Prof. Welton's theory of education, the doctrine of means, we find the same abstract mode of treatment in another form. He appears to hold that we may accumulate a stock of methods which are known to produce certain results. If a given result is required by our special aim, we can apply the relevant method, and within certain limits may be confident of success. If we want a boy to memorise a stanza of a poem, we shall advise him to learn it as a whole, not line by line. But the doctrine of means as thus conceived applies only to the technique of teaching, and only to that part of the technique which is capable of being reduced to definite rules. When applied to the problems mentioned by Prof. Welton, such as the best methods of teaching a subject, or the eradication of a fault, its use, though real, would be very limited. In such cases the selection of means is less difficult than that of ends; for the crux

of the problem is the clear determination of our general aim and of the whole system of subordinate aims which it involves. Moreover there are many elements in the process of education that defy analysis of Prof. Welton's kind. The personality of the teacher, for instance, is admittedly all-important. It follows that if the doctrine of means is to fulfil the function assigned to it, the hard and fast distinction between means and ends cannot be maintained. To consider either means alone or ends alone is to do violence to the experience of educators, and it is to this experience that we must constantly return.

I have discussed Prof. Welton's conception of educational science at some length, because that conception is typical of his line of thought. In the second and third chapters he contrasts various current views of educational ends and shows that they emphasise isolated aspects of more comprehensive aims. This is the case, for instance, with the theory that man is the product of his environment, or that he is independent of it, or that the child should be given liberty, or that it must learn obedience. In each case he has much to say that is worthy of attention, but in each case his conclusion is too abstract to be of great practical or theoretical value. The opposing principles are not really brought into organic relation with each other, and our mental life is not viewed sufficiently as a concrete whole.¹

The remainder of the book deals chiefly with practical questions, and here Prof. Welton's criticisms and proposals for reform are, as we might expect, both pertinent and suggestive. His account of the kind of training which should be given to intending teachers is influenced by the conception of educational science which we have been considering, but as a rule his discussions on practical problems will win the assent of many readers who do not altogether share his theoretical views.

These views I have criticised somewhat freely, but I should like to add two saving clauses. First, I am aware that I may have failed fully to understand Prof. Welton's meaning. His episodic method of treatment leads him to emphasise first one aspect and then another of his subject, and it is not always easy to grasp his position as a whole. Secondly, my criticisms do not imply any lack of sympathy with the general purpose of the book. Most philosophical questions have their humble counterparts in educational thought and practice, and though I do not think that we can wait until philosophy has given a final answer to these questions before attacking them in our schools, yet I feel strongly the urgent need of bringing such results as philosophy has achieved to bear upon the problems of education. This is the difficult task which Prof. Welton has attempted, and my only criticism is that he has not carried the process far enough. I am sure that if he

¹ See, for instance, the account of moral training on p. 46.

would put his doctrines into a more definite and systematic form, he would render a valuable service to the cause of education.

H. BOMPAS SMITH.

Il Fine dello Stato. ALESSANDRO BONUCCI, Prof. di Filosofia del Diritto nella R. Università di Siena. Athenæum. Roma, 1915. Pp. 464. Lire 9.

THE two fundamental points in Professor Bonucci's instructive treatise appear to me to be his treatment of the Will of the State—its essence and its seat—and the distinction, which pervades his entire argument, between real and ideal ends of the State.

The work opens with three relatively formal chapters, which carry the reader through the former of these ideas to the latter. This in the remainder of the book is developed historically and philosophically.

The Introduction, "The Valuation of Right and of the State," deals with the degrees in which three juristic sciences respectively employ the conception of end—in other words, allow themselves to value and to criticise their subject-matter. Broadly speaking, Scientific Jurisprudence (*Dommatica giuridica*) only classifies and does not criticise; although even to classify it must admit a proximate end, which alone can enable it to determine the relative importance of characteristics in conceptions, and to note incoherences in a legal system. For a rule of law expresses a will, and a will, if we are not to suppose "legislative insanity" (*pazzia legislativa*) implies an end which is what gives unity to the system. Not that the end is a constituent of the law; it is only an aid to its interpretation.

Politics, or Political Jurisprudence (*Politica giuridice*) carries criticism a step further. It accepts indeed the supreme end of the given state, as construed by help of the "justifications" or proximate aims of its rules. (The *existence* of the rule is enough by itself to presuppose a will which aimed at establishing it.) But it confronts the system of rules with the actual consequences of their application, as furnished to it by the social and statistical sciences. It values and criticises and suggests ameliorations. It establishes an obligatoriness of means, depending hypothetically on the given end.

When we transcend these limits of valuation and raise the problem of the true end of the State—of absolute justification or obligation—then we are beyond both scientific and political Jurisprudence, and are in the realm of philosophy—the Philosophy of Right or of the State. "Per amor di realtà non si neghi quest'altra realtà."

The following chapter, occupying eighty pages, treats of "the Will of the State," its nature and its seat.

The idea of the "Will of the State" is akin to that of "the law in force" (*diritto vigente*). This will does not exist in the written law, as its meaning, but behind it, as its cause. Does it exist in the wills of particular persons, either some or all of the citizens? The author rejects three theories to this effect, including among them that of Gierke. Perhaps a difficulty which he seems to find in dealing with a unity of individuals distinct in space, causes him a little to exaggerate the affinity of Gierke's view with such theories as these. Passing from them he mentions a curious doctrine of Kelsen, which, though he rejects it, has, I think, influenced his own. Kelsen's theory is that the Will of the State is a centre of imputation; *i.e.*, as the action of an organ of the State cannot be imputed to the organ's own will (which does not count in law—the author urges this throughout), and must be imputed to some will, you must assume the Will of the State to impute it to. It is simply a juristic expression. The author rightly calls this an impoverishment of the idea.

The author's own view rests mainly on "the subordination of the organ" in close connexion with the idea of "law in force". The "juristic existence" of the Will of the State is coincident with the recognition of it as obligatory by the organs of the State (primarily, I suppose, the law-courts). This, as a character reflected upon it, is its supremacy (not sovereignty—there can be a "supreme" will in a State of a federal body). If we further ask what distinguishes a rule of law of the State from a moral or religious rule, the answer is that it must be one which belongs to a unitary will, supreme in a certain territory, and capable of guaranteeing the satisfaction of the fundamental needs of a social life. Compulsion is not the essential mark; it is an incident, and not in itself a desirable one. I am not clear that this opinion reaches the full depth of the matter.

Every rule of law is addressed primarily to the "organs," and only by implication to the mass of the citizens.¹ It is recognition by the former, not by the latter, that determines whether a law is in force, *i.e.*, whether it expresses a living volition of the State.

Many further points of interest are dealt with in this important chapter. I can only mention one. In a treaty between two or more nations, is a new common will created, such as to survive the

¹ The author does me the honour of criticising my view of the "general will," as formulated too much in terms of ideas in the minds of the citizens, and too little in terms of will imposed upon them. I do not lay much stress on the difference between ideas and will, if it is understood that the ideas are self-realising. But I do find a difficulty in such a phrase as "*Volontà che al cittadino s'imponga da fuori*". You must show the Will of the State, I should have said, as logically, though not in time, an outgrowth of the individual will.

alteration of the will of a contracting party (as the will of the State does at home)? Or is a treaty simply an expression of separate and supreme wills, such that when one is altered the treaty falls to the ground? The author's solution is that while (as Hegel said) there is no will concerned but the separate wills of the contracting parties—that is, no new or supreme will is created; yet there is a *relation* between the two wills by which each is ground of the other, which suffices to distinguish them from separate wills of the two States. He complains that jurists insist on inventing new objects when all that is needed is to recognise relations. Of course a question might be raised as to what a relation implies. And in any case, if a true inclusive community were *bonâ fide* recognised, might not an inclusive will, as its will, be real?

Passing to chapter 2, "Il Fine reale dello Stato" (the *actual* end of the State), we proceed from the point which we reached in defining the Will of the State in terms of supremacy and the guarantee of the satisfaction of the fundamental wants of social life (*convivenza*). The expression, used as early as p. 30—"fine supremo d'un certo Stato," of course raises a problem. Can we assign a given State a supreme end in distinction from that of any other State? But we must follow the author's meaning. You cannot refuse—such in general is his argument—to infer from the complex of rules of law to their "justification in the interests which they protect," and the minimum of such interests implied in the system of any State, *e.g.*, the minimum required for its international recognition as a State, is expressed by the definition above cited. The "satisfaction of the wants" is here the end, as a means to which the "guarantee of their satisfaction" is a subordinate end.

Here you have the actual and indispensable end of the state. You may find in history other real ends, dispensable ends, which conflict with it, such as the personal interest of the prince. In as far as this is the case, the complex of real ends of a given State cannot be brought under a unitary concept. This acknowledgment seems to show that the distinction between the real and the ideal end is not ultimately tenable; that is to say, it has here had to be introduced between elements of the "real" end.

I purposely chose for analysis the formal introductory chapters, which appeared to me the most characteristic part of the work, if not to all readers the most interesting. The remaining 320 pages consists of historico-philosophical discussions both of "real" ends as determined in different periods, and of "ideal" ends as imputed by philosophers. "German metaphysic will be immortal," the author says (p. 218), "for its contribution to the modern or positive idea of liberty". His own conception of the absolute end of life, from which the absolute obligation of the ideal end of the State is derived, runs on similar lines. It is the "autonomia più integrale di noi". And he draws a notable distinction between

two conceptions of human happiness by which this "end of the State" may be interpreted. One may understand by it the provision of complete satisfactions, or the placing of the citizens in a position to attain them by their own activity. The latter, and not the former, is in harmony with the ideal end of the state.

Though making very great use of German sources, the author is not wholly in harmony with, for example, Hegel's attitude. He thinks that it leaves too little to free will, and little, therefore, to valuation; for only what is free can be valued. Schelling he rather oddly places alongside of Hegel's foe, von Haller, as denying peculiar and ulterior "ends" to the State. But surely in the sense of their denials they are at the opposite poles of philosophy.

The book is one of great learning, and the historical approach, as emanating from a Latin country, is a little different from that to which we are accustomed, and all the more welcome and instructive to us. The curious question of the subordination of the State to the Church is treated in detail, and one is struck by the comprehensive affinities of the doctrine that the State is the result of sin. Of course it seems that we should be nearer the ideal if we could do without it. But perhaps this is hardly the ultimate truth either about the State or about sin.

I am doubtful about the classification of Aristotle's and Plato's views of the "End" as Eudæmonist and Ethical respectively. These modern terms are so thin and poor compared with the Greeks' solid grasp of life. I wish we could form a habit of treating Greek thought more concretely, and without ranking it under modern abstractions. Nor am I quite satisfied that the spiritual unity involved in Plato's Republic is here adequately represented. But I am delighted to be made acquainted with the lines which Professor Bonucci sets in contrast with it, lines of Arator, whom I gather to be a Christian poet of the sixth century.

Ecce tot egregiis unum cor inesse catervis
Cernitis, utque animam populus nanciscitur unam.

And with this quotation I take leave of this valuable work, regretting to have done so little justice to its learning and its wisdom.

BERNARD BOSANQUET.

The Foundations of Character ; being a Study of the Tendencies of the Emotions and Sentiments. By ALEXANDER F. SHAND, Macmillan, 1914. Pp. xxxi, 532.

MR. SHAND'S work on the Emotions has been known for many years past to all serious students of psychology in England; and it is with cordiality and gratitude that they will receive this large and valuable contribution to that aspect of psychology which he

has made so especially his own. His claims on behalf of the work are much more modest than his achievement.

The leading features of the book are (1) an attempt to lay down a method by which a science of human character may be achieved and (2) a formulation of a number of tentative rules or laws on the basis of which the beginnings of the science may be commenced. Without them, or some such rules, the subject, he thinks, is too difficult and intricate for scientific treatment: the growth of the science should consist of the accumulation of evidence both 'pro' and 'con' under each of these rules. Personally, I see the necessity for some such procedure; but the difficulty is that those who are unable at the outset to accept the broad conceptions which, overtly or tacitly, underlie the whole of the work, will find cause for dissent as they proceed. Is it better, for example, to build up a science of character from a basis of instincts and other conative tendencies or from a basis of emotions? I agree on the whole with Shand as against McDougall, if we use the term 'emotion' in its ordinary sense, that there is no one-to-one correlation between instincts and primary emotions; but I am not sure that great instinctive trends, to wit, home-making, have not a specific feeling-tone throughout, which *may* be called an emotion, or, at least, an emotional attitude; though joy, sorrow, fear and anger, from time to time, cluster along its pathway to success or failure; as indeed they may with respect to any and every conative tendency, instinctive or otherwise. And this leads me to my own difficulty—one which perhaps I ought not to feel. To me it seems so much more systematic to build up character from instincts and conative tendencies, and to fit in so much better with biological science generally, than a procedure which builds up mainly from 'primary emotions,' that it requires, as it were, a *volte face* on my own part to accept the author's view-point. 'Emotions are forces' he says again and again, and speaks of *their* instincts. I should want to stress the instinct as forceful rather than the emotion; for we could hardly justify the application of forcefulness to the emotion by the method of concomitant variations; and, though I believe, according to Mr. Shand, joy is, so to speak, its own 'end,' he would not, perhaps, ordinarily wish us to conceive emotions as forces to realise themselves, but rather the instincts or tendencies which they accompany.

Mr. Shand then, begins with the primary emotions. He does not wish his analysis to be preoccupied by their constituent feelings or sensations but rather with their tendencies and biological value. But let no prospective reader suppose that there is no analysis in this book. To me, indeed, it is just this fulness of analysis and concretion, with its delightful and widely-chosen illustrations, which gives the book so great a charm—to cite two cases only, the interesting paragraph on self-abasement on pages 32-33 and the eloquent description of pity on page 48.

It is also refreshing to find the author quite frankly appealing

to those unscientific people, poets and novelists, for much of his aptly-chosen material, as in the capital paragraphs about Balzac's old Grandet. (pp. 124-125).

Mr. Shand starts his emotions with (a) a cognitive attitude, (b) a conative attitude, and (c) a feeling attitude, but the reflective consciousness is purposely omitted. When I read this, I said to myself, 'Will and Intellect have gone, our science of character cannot deal with them'. But this was an error on my part; and, as it may be a more than personal one, I wish to enter a caveat at the outset. For it is involved in Mr. Shand's method to make his generalisations too unconditional at first, and qualify them step by step and stage by stage as he proceeds. Will and Intellect do come in, though it may be a matter of dispute whether he places adequate stress on their influence; he certainly does not use them in what might be called the ordinary academic sense: it is easier, he says, to characterise a man by what he does than by what he is. But we must not forget that religion partly owes its great popular appeal to the opposite procedure; and it is well to remember it has been held that the only truly good thing is the good will.

But, in this case again, the progressive nature of the author's work makes me very unwilling to assert that he will not take due account even of such facts and conceptions as may seem irreconcilably antagonistic to his expressed views. For he promises us another book dealing with the 'sentiments' at the same length as that which he has devoted in this volume to the emotions.

Emotions, by addition, organisation and interpretation, become sentiments. These are the stable things: what we love, what we hate, the sources of our joy and sorrow, the directions of our curiosity; these objects, organised into systems with intellectual and emotional factors, are what we want to know when we think of a man's character.

It is due to Mr. Shand that, among English psychologists, the word 'sentiment' has replaced the older word 'passions'. He holds, and rightly, I think, that the word passion connotes something too violent perhaps, certainly too spasmodic, for correct application to the sentiments. Only in the compound 'ruling-passion' does the word seem to convey the steadiness which the sentiments possess.

Of course all this is very unlike the common descriptions by which most of us in daily life manage to convey what we have to say about the characters of others or even about our own. Any newspaper or official testimonial will supply illustration. Such a person, we say, is diligent, persevering, penetrating, honest, loyal, *et id omne genus*. I do not suggest that the classificatory concepts of science should be determined by the practical exigencies of persons who, so to speak, have to deal in characters. But I shall look forward with pleasure in the hope of seeing some method

advanced in detail which will enable us to take in and improve upon, or even, it may be, to abolish some of our well-worn and apparently fairly efficient characterisations. Perhaps, however, these things belong rather to the superstructure than to the foundations of character, though I am by no means sure about that.

To the foundations at any rate belong the tendencies of the primary emotions, and I am bound to say that Mr. Shand does, too easily as it seems to me, appear to accept, here and there, a kind of optimistic evolutionism. On one occasion he speaks of the instinct to build battleships as directed to the preservation of the race, and sometimes forgets, I think, that biological utility often compels us to dissociate inherited connexions between stimulus and response.

A-primary-emotion-exists ; it-is-therefore-justifiable, and-serves-on-the-whole-a-useful-end is perhaps an exaggerated way of presenting the implications. But these implications do seem to me to be involved, just as they are by many writers on instinct. Both emotion and instinct, however, have finally to be justified before the bar of the reflective consciousness. If this is an ethical standpoint rather than a psychological one it is at least involved in a science of character. That question is perhaps not now at issue ; but I am concerned, simply as a matter of fact, to ask for serious limitations to the inevitability and non-modifiability of instincts and to the utilities of the emotions. Mr. Shand's excellent method of limitation and qualification may, in reality, have quite well guarded against the interpretation of which I complain ; but I can only say that the book as a whole leaves me with some such an impression. I hope, in a subsequent volume, the author will take up practically the questions of character with which we are all concerned, to wit, the influences of heredity and environment, the influence, if any, of direct moral instruction and allied problems. Does an appetite, as he asserts, become more urgent the longer it remains unsatisfied ? Does it not often die away ? It seems to me that specific treatment of these issues could be given in tracing the growth of the 'emotions' into 'sentiments'.

But I must not, in asking for more, forget my great indebtedness for what I have already received. From Mr. Shand himself, in many talks and addresses, I learnt, badly I fear, to think through him about 'emotions' and 'sentiments'. His view of sentiments I still subscribe to ; his conception of the emotions has gone beyond me and embraces more than I can hold. But I am loath to maintain the view of a man to whom the psychology of the emotions is only a part of general psychology against one who, like the author of this work, has made emotional psychology a life-study. In any case, he has written a book on the emotions which, for patient description, broad-minded receptivity, ingenuity of method, and modesty of statement, will not easily be surpassed.

VII.—NEW BOOKS.

India, Her Cult and Education. I. Introductory. By PRAMATHA NATH MUKHOPADHYAYA. Published by the Author, 12-1 Nyan Chaud, Dutt Street, Calcutta. Pp. 111.

Vol. II. *The Approaches to Truth.* By PRAMATHA NATH MUKHOPADHYAYA, of National College, Bengal. Published by T. S. Basu, B.Sc., 12-1 B Nayan Chand, Dutt Street, Calcutta. Pp. iii, 442. 6s.

THESE books contain a good deal that seems fantastic to the Western mind, but also a good deal which, if beginning to be trite, is still worth attending to. The Introductory pamphlet deals with the future of Indian education. It labours needlessly, as we may think, the point that the history and individuality of a people must be considered in framing plans for its education. But the bearing of the argument is worth our attention. It is the old one, that with all its defects, its sleepiness and backwardness, Indian civilisation retains a secret which it will not abandon, and which the West would do well to learn for itself, and not to try to extinguish where it lives. When all is said, the powers of India,—those who have the reverence and mould the convictions of the people,—are what we should call the saints and the thinkers, not the plutocrats and the officials. I have really no competence to enlarge on this theme, or to criticise the assertion. But something of the kind is commonly alleged, with whatever reservations, by those who ought to know. And I have little doubt that in the main it is true; and if true, it is surely a point of the highest significance.

The second volume is a philosophical treatise on reality. The author claims that his method is essentially direct, the interrogation of his own reflective intuition, and that the result is in harmony with the teaching of the Upanishads. On this point I have no opinion. But the writer's expression has been influenced mainly by James's Radical Empiricism, and to some extent by Green's philosophy. To the former, which is his starting-point, the author takes up in the end a critical attitude, which is one in essence with his attitude to the metaphysic of Buddhism.

His principal thesis, constantly recurring, is the seamless unity and logical character of the direct intuition in which we actually live and move and have our being. You may call it, with James, a pulse of experience. But in the end this is inadequate because "a pulse" presupposes a series of pulses outside it; and all our universe, *prima facie*, is within the seamless intuition, and only outside it by a logical or conceptual construction. This is his difficulty again with Buddhism. The real cannot at once be a single experience and an actual endless series of events. The series of events must somehow be within the single experience which we possess or subordinated to it. For him, all series, things, organised reality, arise out of, but within, the great single intuition, by the operation of the Veil—that is the abstraction by which our pragmatic interests bring out "fact-sections" (what we call facts). These are never

really isolated and discontinuous, though we take them so. The one "Fact" is only veiled; it is never annihilated. It is the element of our life, the background and foundation of all our knowledge and reality, which are no more than partial stresses within it. Consciousness is the plenum, the atmosphere of being. But there is no solipsism, for experience, the ocean of conscious being, is prior to the "me," and it is as true that experience has me as that I have experience. Subject and Object are only stresses in the one sea of experience, and we can often catch them absent. Grades of our Universe are constituted by the modes and degrees of Veiling on the surface of the individual Intuition. And for all this—the nature and grades of stresses—the author employs a quasi-mathematical terminology, distantly analogous to that of Herbart, but not, he warns us, expressing combinations of separate factors, only describing stresses and results by comparison with such possible combinations.

There is a danger-point I think when he urges (very often) that all beliefs and affirmations of possibility and reality being *within* our one intuition can never take us to anything outside it (such as reality apart from consciousness). If he means to something wholly discontinuous in kind, the argument may be sound. Otherwise, it runs near to a fallacy. Undoubtedly he does believe that consciousness at one stage or another—not logical consciousness—is the basis of all being and cannot be thought away. The view is not wholly unlike Husserl's intentional world.

I think that the force with which the main contention—the contrast between *the one fact*, and our pragmatic "fact-sections"—is held and expressed, has a value. I fear there is a tendency in the book to what even the widest-minded of us would call superstition—*e.g.* rejection of Western medical science.

BERNARD BOSANQUET.

The Works of Aristotle (Translated into English under the Editorship of J. A. Smith and W. D. Ross); *De Mundo* (Translated by E. S. Forster); *De Spiritu* (Translated by J. F. Dobson). Oxford: Clarendon Press, 1914.

Magna Moralia (Translated by St. George Stock); *Ethica Eudemia, de Virtutibus et Vitiis* (Translated by J. Solomon). Oxford: Clarendon Press, 1915.

Detailed criticism of these new instalments of the Oxford translation of *Aristotle* would be out of place in any but a specially philological review; MIND can but express the gratification which will certainly be felt by all its readers at the steady advance which is being made towards the production of a worthy rendering of the whole Aristotelian corpus into our own language. Of the works comprised in the volumes before us, the English version of the *Eudemean Ethics* should be particularly welcome, as it makes accessible to the moral philosopher who is not at the same time a finished Greek scholar the first and most authoritative of all commentaries on Aristotle's own *Ethics*. As Prof. Burnet said, in justification of his inclusion of much of the Greek text in his edition of the *Nicomachean Ethics*, we cannot reasonably expect to understand Aristotle better than the foremost of his personal scholars did, but until the issue of the present volume readers who are obliged to get at their Greek philosophy through English versions had little opportunity of knowing how Aristotle's ablest pupils did understand the more difficult points in their master's doctrine. Their thanks to Mr. Solomon for his careful rendering should be very sincere. Mr. St. George Stock, besides

translating the later Peripatetic handbook oddly called the *Magna Moralia*, has deserved well of the serious student by the careful indexes and full tables of contents which he has prefixed to both works. In his brief introduction to the *Eudemian Ethics* he carefully collects the available evidence for deciding the moot question whether the three 'books' which are common to this work with the *Nicomachean Ethics* originally formed part of the latter or of the former treatise. He inclines strongly, on linguistic grounds, to the view that they are originally "Eudemian," though he takes the sting out of his pronouncement by his recognition that in doctrine the books are in any case Aristotle's. His decision could only be challenged on the strength of a special study such as the present writer, for one, has not bestowed on the question, but it would, I think, be possible to weaken some of the linguistic arguments if one were allowed to appeal—and why may one not do so?—to the diction of Aristotle in general, not merely to that of the *E.N.* Nor can I think Mr. Stock right in disposing quite so easily as he does of the difficulty, insisted on by Prof. Burnet, of crediting Eudemus with the queer mathematics of the discussion on Justice. Mr. Stock argues (a) that after all we do not know that Eudemus was a specially good mathematician, (b) or that Aristotle was a specially bad one. It may be replied to (a) that the list of Eudemus's works is of itself enough to show where his main interests lay; his exceptional fame among Peripatetics is some guarantee that he was good at his *métier*, and to (b) that the helplessness of Aristotle's criticisms of the Academic mathematics settles the question of his competence. Also it might be a difficult question to answer how any editor of Aristotle's lectures on conduct could have omitted to treat of such problems as the nature of "practical goodness of intellect" and of "moral weakness," as the editor of the *E.N.* must have done if the three books, *E.N.*, v.-vii., are a mere supplementation of a completed work by transferring to it bodily more than a third of another independent book. Hence, if the disputed books were originally, as they stand, the work of Eudemus, I cannot help thinking that some explanation of their recurrence in *E.N.* other than that of mere borrowing is called for. How, for example, if the *E.N.* itself were a redaction of Aristotle's lectures by more than one "editor"? Then the books might be "Eudemian" and might also have formed part of the *E.N.* from the first.

Of the smaller and unauthentic works included in the list at the head of this notice, the most interesting is the *De Mundo*, a lively sketch of cosmology based on the doctrines of Poseidonius and consequently presenting interesting points of contact with the similarly Poseidonian *Questiones Naturales* of Seneca. It loses nothing of its quite un-Aristotelian liveliness in Mr. Forster's version.

A. E. T.

"Obliviscence and Reminiscence." By P. B. BALLARD, M.A., *British Journal of Psychology*: Monograph Supplements. Vol. i., No. 2.

This is a record of one of the most interesting psychological researches yet made in this country. Dr. Ballard has succeeded in demonstrating quite definitely that material learned by young children is actually better remembered three days after the material is learned than immediately after learning, a phenomenon to which Dr. Ballard applies the term *Rominiscence*. The experiments were carried out with a large number of school children of various ages, over 300 school classes being tested. Children of six improved in their memory of a poem to the extent of 50 per cent. or 60 per cent. in two days: as the age of the children in-

creased the improvement decreased. Subjects over twenty years of age did not improve at all through the lapse of time. These are only statements as to averages: individuals were found to vary enormously.

A curious fact is that an improvement in the total quantity of the poem reproduced after two days was often accompanied by a forgetting of some of the material initially remembered. The more comprehensible and the more interesting the material, the greater was the amount of improvement, but it occurred even with nonsense syllables. The percentages of improvement due to the lapse of time is greatest in the case of the least intelligent children, though the absolute *amount* due to such recovery or reminiscence is greatest with the most intelligent children.

It is asserted that such reminiscence occurs even where the poem is not thought of in the interval. It is, of course, impossible to prove in the case of children that the poem is not so thought of, and it is shown that a systematic attempt to recollect the poem during the interval has a very decided effect in the amount of reminiscence. But this does not explain away the fact that material is remembered after two days' interval which was not remembered immediately after learning.

The theory that fatigue due to learning the poem prevents recall after learning is discredited by the fact that such fatigue should have completely disappeared the day after the learning of the poem, yet improvement in reminiscence goes on till the second or third day. Nor does the amount of reminiscence increase with the length of time spent in learning the poem, though the amount of fatigue undoubtedly does. Facts certainly seem to favour the theory of neural growth which Dr. Ballard supports, *viz.*, that the modification of brain structure which takes place during learning continues after the learning has ceased—that the inertia of the nervous system gives way slowly, but continues to give way after the external impressions have ceased. This theory seems to find confirmation in the fact which Dr. Ballard mentions elsewhere, that the children who learn most slowly, *i.e.* in whom nervous inertia is greatest, show the greatest amount of improvement with the lapse of time. As an experimental research the work is a model of good method and of thoroughness. It is freely illustrated with admirable diagrams and graphs.

C. W. VALENTINE.

The Backward Child. A Study of the Psychology and Treatment of Backwardness. By BARBARA S. MORGAN. New York and London: Putnam's Sons, 1914. Pp. xvii, 261.

This book is the outcome of two years' experience in an experimental clinic in New York. The main emphasis is upon the facts that backwardness is not a *general* incapacity but that it consists in specific weakness in one or two forms of mental activity, that these can be discovered through comparative isolation by means of suitable tests, and that then these specific weaknesses can be improved through appropriate training. Both the tests for the discovery of mental weakness and the tests for training are of the nature of sensory, attention, memory, or intelligence tests familiar to most students in the psychological laboratory.

The description of these tests is not exact or full enough in this book to make it adequate for the use of a novice in the subject. Indeed the author rightly admits that the testing of the children can only be done by a trained experienced examiner.

Though the main contentions of the book are undoubtedly sound, it can hardly be described as of great value as a contribution to the psy-

chology of backwardness. Psychological terms are used in an unusual and occasionally unscientific way, and explanations of experimental phenomena are sometimes given dogmatically without adequate proof. For example, when a child, when the letters C (K) A T are pronounced, says they make RAT, it is assumed that his sense of sound is deficient. Again, when stronger stimuli are found to produce better attention than weaker ones, and when the attention was subsequently "trained" by such stronger stimuli, it was assumed that this would result in a general improvement of attention so that weaker stimuli would be better attended to in future. But this statement surely needs careful qualification. Though the book is not of great value as an original contribution to psychology it should, however, prove very suggestive and stimulating to teachers with a psychological interest, and to parents of "backward" children.

C. W. VALENTINE.

Spiritual Healing: Report of a Clerical and Medical Committee of Inquiry into Spiritual, Faith and Mental Healing. Macmillan & Co., Ltd., 1914. Pp. 56.

This "Clerical and Medical Committee" contains some names well known both in the clerical and in the medical world. There are eleven clergymen and ten medical men. They held nineteen sittings and took "evidence" from some witnesses, and non-crossed statements from others. Three appendices contain a good deal of the raw material on which the short provisional report is based. The practical conclusion is that "spiritual healing" is a form of suggestion and is of no value except in "functional" illnesses. The balance of opinion is strongly against "spiritual healers" operating independently of qualified medical men. As the report and the statements by some of the witnesses include positive propositions about "the exercise of the power of God in stirring the inborn spirit of man to higher and fuller life" (p. 14), the Divine Will, the efficacy of prayer, and the like, it is not possible to evaluate the report without an exact analysis of the parts played by those positive propositions, for this would mean a discussion of every important metaphysical concept, a thing impossible here. Substantially, the conclusion is that there is no authenticated case of organic disease cured by "spiritual healing" and that suggestion covers the whole ground. The book is interesting, less as a scientific contribution, which it hardly is, than as an evidence of the growing tendency of the clerical mind to interest itself in scientific method.

W. L. M.

How to Treat by Suggestion with and without Hypnosis: A Notebook for Practitioners. By EDWIN L. ASH, M.D. (Lond.). Mills & Boon, Ltd., 1914. Pp. 104.

This little book does not aim at novelty; it is simply a practical handbook. The exposition is exceedingly simple, well arranged, and well loaded with practical points.

W. L. M.

Introduction à l'Esthétique. By CH. LALO. Paris: Librairie Armand Colui. Pp. 339. Price, 3 fr. 50 c.

Prof. Lalo, is one of the most energetic present-day workers in the field of æsthetics. Three books by him on the subject have preceded the

present work: one on the *Æsthetics of Music*, one on *Experimental Æsthetics*, and one on the *Æsthetic Sentiments*. The present work is a study of the general nature of *æsthetics*, and it is to be followed by a further volume, *L'Art et la Vie*. Prof. Lalo has selected for his main treatment topics of great interest, *e.g.*, the relation between the beauty of nature and that of art, and the relation between *æsthetic theory* and the ideas of various schools of literary criticism. His point of view is broad and well-balanced; he recognises to the full the value of the history of art, of the criticism of art, and of experimental investigations in a general philosophy of beauty. The book forms a useful bird's-eye view of the general sphere of *æsthetics* and is enriched by many appropriate references to French literary critics.

As a general criticism of the book it must, however, be said that Prof. Lalo is too often content with general statements and so does not come to close grips with fundamental issues. Psychological analysis, where used, is not carried far enough. It is, for example, disappointing that one who lays such emphasis on the importance of psychological investigations for the advance *æsthetics*, should give so little in the way of psychological analysis in discussing the difference between our appreciation of the beauty of Art and that of Nature. In this and in other respects it seems to me that there is much lacking in his treatment of the beauty of Nature—which he regards as not truly *æsthetic*, except when we look on Nature as the creation of a great artist. In particular, the discussion of the “beautiful” in Nature as synonymous with the “normal,” appears to me unsatisfactory. In natural scenery surely even the abnormal is often beautiful, and as to human or animal beauty, even if “normality” is necessary for beauty it certainly is not enough to ensure beauty.

Lalo is fond of emphasising the sociological origin of true *æsthetic values*, as well as of the sentiment for Nature—developed through the work of artists who have been the revealers of Nature. But here again the real nature and *modus operandi* of such social influences is not analysed.

In the middle portion of the book Lalo seeks to show how much truth or falsity there is in the doctrines of Impressionism and Dogmatism in *æsthetics*. Scientific *æsthetics*, he maintains, must be dogmatic, but its dogmatism must be relative. Experimental *æsthetics* cannot be content with the statement of individual impressions: it must seek to establish laws; but it does so on the basis of individual judgments, *i.e.*, it recognises the relativity of beauty to the individual. Also *æsthetics* must recognise the relation of our experience of beauty to that of other individuals; *i.e.*, *æsthetics* must take the sociological point of view.

With such somewhat arid conclusions the book closes: one must look for the working out of Prof. Lalo's views more fully in the succeeding volume, *L'Art et la Vie*.

Meanwhile M. Lalo has not made it clear how experimental *æsthetics* can be dogmatic in the sense of setting up *æsthetic values* which *ought* to be appreciated. Surely all it can do is to say: “You must judge this beautiful if you wish to conform to the judgments of the majority of your fellows, or to that of the most cultivated in a given department of Art”. Also the general dogmatic *conscience esthétique* inductively reached, towards which Lalo seems to be groping, would at least require that the judgments recorded in experimental and statistical inquiries, should be of the form, “this *ought* to be judged beautiful”. But the form usually recorded in experimental investigation is “this appears to me beautiful,” and this by no means involves the other form of judgment.

Incidentally it is to be regretted that Prof. Lalo has not familiarised himself with the most recent work in experimental aesthetics. Though he states that the work has been especially developed in America and England, he refers only to Vernon Lee among writers in English—and in her case the references are only to articles in the *Revue Philosophique*. He seems to be unaware of the work of Martin and of Puffer in America, and of Bullough in this country.

C. W. VALENTINE.

Dr. B. Bolzanos Wissenschaftslehre, Neu Herausgegeben von Alois Hiller. Erster Band. (Hauptwerke der Philosophie in originalgetreuen Neudruckten. Bd. iv.) Leipzig: Felix Meiner, 1914. Erster Band. Pp. xv, 571.

The firm of Meiner has already deserved well of all students by its series of cheap and excellent reprints of classical philosophical texts, but has perhaps surpassed all its former services by this scrupulously exact reprint of one of the rarest and most valuable of nineteenth-century works on logic. Bolzano, though his services to logic rank with those of Boole and de Morgan, has hitherto suffered from almost unparalleled neglect except among a very small circle. Yet he was not merely one of the pioneers of original mathematical thought in the early nineteenth century, but one of the acutest critics of the Kantian philosophy and the "idealist" development from Fichte to Hegel. When the history of the modern science of symbolic logic comes to be written, his *Wissenschaftslehre* will certainly receive recognition as having anticipated a great deal in the later developments of our own time. Meanwhile the acuteness of his criticisms of Hegel and still more of Kant gives his work an independent value even for students who may be wholly indifferent in the special problems of "logic". In my own opinion at least Bolzano will not have come fully by his rights until he is generally recognised as a metaphysician of the very first order—the true and worthy successor in German thought of the great Leibniz. It is deplorable to think that the present European upheaval may conceivably delay, even if it does not prevent, the issue of the three remaining volumes of his *opus magnum*.

A. E. TAYLOR.

La Morale al Bivio. By ZINO ZINI. Turin, 1914. Pp. 174.

A brief discussion of the fundamental questions of Ethics. Mr. Zini's general attitude is neo-Kantian, though the apotheosis of the State with which he concludes is definitely Hegelian. Ethics, he holds, is properly the "science of man" or "science of the concept of man". What man is is only fully revealed to us in the notion of universal and binding duty. As concerned with this notion of duty, ethics is not a science of "being," but of "value," and the individual and his destiny are not objects for ethical science. The autonomy of the moral will is equally ignored by those who make ethics into a naturalistic study of the origin and growth of customs and those who introduce the conception of God as the source of the moral law or the final good of creatures. The good-will is neither the will of God nor the actual (Kant would say the pathological) will of any human individual but the purely "universal" will of abstract "humanity". Yet Mr. Zini, in a brief concluding chapter, identifies this ideal will of humanity with "the State" and urges us to return to

the "Platonic tradition" from the misleading Christian conception of the "mystical body of Christ".

There is much that is interesting in Mr. Zini's little book, and much with which all moralists, except those who identify their study with naturalistic anthropology, must agree. Yet I must say he does not strike me as very convincing in his arguments for some of his central positions. I find it hard, *e.g.*, to believe that our conception of our own personality logically presupposes a prior recognition of the personality of others, and Mr. Zini's attempt to establish the point by an argument based on Kant's theory of the "infinite judgment" is to me quite unintelligible. And again I think there is a real inconsistency between the pure neo-Kantianism of his earlier chapters and the Hegelianism of his deification of the State as a real embodiment of the good will. If considerations of fact and considerations of value are to be as utterly sundered as he maintains when he says that Ethics must not deal with the question of God or of immortality because "what happens" to any man or to all men is only *fact* and has no bearing on the theory of values, I do not see how it can be of any concern to the moralist that a "will of humanity" which appears to be only another name for the system of ethical values should be actually embodied in an existing institution. Indeed it is no more correct to call the system of moral values a will than it would be to call a collection of mathematical or physical truths an intellect. Either it is essential to ethics that there should be a will that actually wills the system of ideal values or it is not. If it is not the argument for the worship of the State falls to the ground, if it is, the Theist cannot be dismissed so cavalierly as he is by Mr. Zini. And if we grant the point that it is important that the universal good will should have an embodiment, why should we identify the State with that embodiment? Surely it is manifest that the organised bureaucracy is very far from being an adequate embodiment of the spirit of morality—at least as far as any actual "Church" is from being an adequate vehicle of the "spirit of Christ". To me, for one, it is inconceivable how Mr. Zini can rate, as he seems to do, respect for the rights secured to individuals by a legal code higher in the scheme of moral values than "the dear love of comrades". A *rector magnificus* of the University of Berlin might find it convenient to identify the will of God with the will of the Prussian bureaucracy; surely the events of the last few months should make us think twice before we regard the Hohenzollern *Machtstaat* as the "*termine fisso d'eterno consiglio*".

A. E. TAYLOR.

Wissenschaft und Wirklichkeit. By MAX FRISCHEISEN-KÖHLER. Leipzig und Berlin: B. G. Teubner, 1912. Pp. viii + 478. Price M. 8.

This exceedingly well-written volume may safely be recommended to all those who wish to inform themselves about the drift of speculations on knowledge, experience, and reality among the various schools of thought in Germany at the present day. For non-German readers, interested in this philosophical problem as a whole, and not merely in the German treatment of it, this restriction to German writers exclusively will detract considerably from the value of the book. The author is a disciple of Dilthey, and mainly concerned to defend Dilthey's standpoint by contrast with that of Erdmann, the Marburg School, Riehl, Rickert, Windelband, Münsterberg, and others. Within these self-chosen limits his treatment is clear, competent, and interesting. His accounts of the arguments which he criticises strike me as accurate and fair,

and they are entirely free from the polemical bitterness which occasionally mars discussions of this sort. The author's comments are generally marked by their good sense and an agreeable level-headedness of judgment. But even though the book, being volume xv. in the series entitled *Wissenschaft und Hypothese*, is addressed to the general reader rather than to the academic expert, the complete ignoring of English, French, and Italian contributions to the discussion of its subject is a regrettable defect. A tendency to become *self-centred*, to neglect work done outside Germany, to be absorbed wholly in the mutual rivalries of German schools (not to say cliques) has, of recent years, become increasingly evident in all branches of German University work, and reacted injuriously on the intellectual outlook of the whole people, as the war amply shows. One is sometimes forced to think that J. S. Mill and H. Spencer are the last English philosophers whose views are ever noticed by German University professors—a state of things which is wholly Germany's loss.

Prof. Köhler has divided his book into two parts. The first, entitled *Transcendental Idealism*, reviews in three chapters, (i.) The Critical Standpoint, (ii.) Logical Idealism, (iii.) the Philosophy of Values, the work of the various Neo-Kantian and Neo-Post-Kantian schools in Germany, the author's endeavour being to establish that 'reality' (*Wirklichkeit*) is neither a category of pure thought, nor a valuation, but is something more fundamental than either of these, something which supplies both background and substance to all thinking and valuing, something which is 'given' or 'lived' (*erlebt*)—in short, as Mr. Bradley and others have taught English thinkers to say, immediate experience. The second part, entitled *Phaenomenology of the Consciousness of Reality*, deals in three chapters with (i.) the Standpoint of Consciousness, (ii.) Self and Outer World, (iii.) the Concept of Empirical Reality. In this part the author sets himself to trace in detail, first, 'die Erlebnisgrundlagen unsers Wirklichkeitsbegriffes,' next, the way in which thought elaborates, expands, and supplements reality as immediately experienced.

The most curious and interesting point about the author's argument is that he thinks it necessary to start from a Solipsistic position, so that the main problem is to account for our 'gemeinsame Erfahrungswelt,' and to furnish a 'deduction' (in the Kantian sense) of the objective validity of the *a priori* principles of science. The author is emphatically not a Solipsist in his conclusions; in fact, he offers an explicit refutation of Solipsism on the grounds that 'my' experience can be determined only as a section of an infinite totality (p. 294) and that, even in immediate experience, I am always aware of the contrast of self and not-self (p. 273 and elsewhere). This being so, it is the harder to understand why he repeatedly insists on the necessity of starting from a Solipsistic position, and treating the existence of other Selves, and of the Not-Self in general, as 'problematic'. Again and again he affirms that philosophical reflexion must start with 'my own' experience, that the 'given' is 'limited to the sphere of my Ego' (e.g., p. 254), and that this relation to my Ego is 'phenomenologically ultimate,' but I can discover no argument establishing this ultimacy in any way, which would not show the Not-Self to be equally ultimate. Moreover, from the position that 'every knowing subject is shut up within the circle of his own experience' (p. 314), the author, monadistically, infers that the circles of different subjects cannot possibly coincide or overlap. He realises that this leaves on our hands the tremendous problem of language and inter-subjective intercourse (p. 315), but the elaborate argument which he then offers to show that we have the right so to conceive the

world as to make it possible for the individual to pass from the 'subjective' circle of his experiences to the 'objective' standpoint of a whole of reality including all individuals—this argument seems to me unconvincing just because there is no need for it except for the author's arbitrary starting-point. The central principle of his position, however, possesses a genuine interest of its own, apart from these wrestlings with Solipsism. It is that we ourselves are real in that we act and will; that through the resistance with which our will meets we first are led to acknowledge a reality other than ourselves; and that the realisation of our ideas in action is the decisive criterion for their 'truth' and 'objective validity' (p. 353). The German language facilitates this view because its term for 'reality' (*Wirklichkeit*—actuality) is derived from the same root as the verb to 'act' (*wirken*).

R. F. A. H.

Il Problema delle Scienze Storiche. Da ENRICO DE MICHELIS. Turin, 1915. 8vo. Pp. xii, 390.

The work of Signor De Michelis is largely occupied with a criticism on Prof. Rickert's elaborate and profound investigation into the distinction between the sciences of nature and of history, reviewed by Mr. Herbert Blunt in *MIND*, New Series, vol. xxiii., pp. 425-428. The Italian philosopher is copious in his acknowledgments of Prof. Rickert's depth and subtlety; but his comments are on the whole rather adverse—that is to say on the epistemological side; both writers, were they set to compose a general history or any particular national history, would follow pretty much the same general method, the method, let us say of Guizot or of Lecky. To understand their characteristic differences it will be necessary briefly to recapitulate the relative philosophy of Prof. Rickert.

History, according to the German Professor, is a science in this sense that historians should have for their object, just like physicists, the rigorous and precise ascertainment of facts. But the facts themselves are in each case of a different order. According to the ideas of many thinkers they are distinguished as severally dealing, the one with matter or unconscious substance, the other with conscious mind. But this is a mistake. Psychology is a mental science, but it is studied on the same principle as the material sciences—say physiology. Both alike whether material or physical have for their object the ascertainment of laws; and this is equally true of psychology and of mechanics. Memory, for instance, is a conscious process, but it is a law of nature that memory should be strengthened by association and repetition; it is proved just like the laws of chemical combination; and like them it is verified in any number of cases, one being as good as another. But truly historical cases are absolutely unique of their kind; there never has been anything just like them before, nor will there ever be anything just like them again. Now a closer examination of the physical sciences discloses the fact that no one of the phenomena with which they deal is exactly like another. On the one side they, practically, extend to infinity and are therefore not amenable to scientific inspection. On analysis also they seem to be infinitely differentiated among themselves. Reality in short is an endless mass of biographical detail. The concepts and laws by which we introduce a sort of uniformity into nature are obtained by giving exclusive attention to the resemblances of phenomena at the expense of their differences. They are, so to speak, artificial and fictitious; actual reality being found only in history.

Nevertheless history, no more than nature, can be studied in its

entirety. From the endless variety of nature we are enabled to select the facts that constitute knowledge by the ascertainment of concepts and laws which cannot owing to the diversity of its content be found in history. Prof. Rickert solves the problem of selection by introducing the concept of Value. And historical values determine themselves as so many different forms of Culture. Common language presents culture to us in its most elementary form as an improvement of the soil and of its produce—in Swift's words, making two blades of grass grow where only one grew before. This at once marks it as a departure from nature, not of course in the sense of aberration but in the sense of improvement. So understood history covers all the arts, war and government being included among the number; and not the arts only but religion, science, philosophy, social intercourse, and aesthetic production also.

Signor de Michelis endeavours to dissolve away this absolute distinction between natural science and history, which in his opinion the majority of philosophers also refuse to admit. According to him laws of nature are not the artificial abstractions to which Rickert would reduce them; their characters of universality and necessity are not conditioned by suppressing the reality of things in themselves, but are the essential properties of what actually exists. Neither can abstract views of reality be excluded from human history. For instance, the Glacial Period and the Stone Age are only known as we know the truths of geology. More than this: the Middle Ages and the Renaissance are known only as a series of general facts. Again, history is largely determined by geographical conditions. These act as constant causes, remaining practically the same in space and time. As to culture-values they have not the power claimed for them by Prof. Rickert of controlling the selection of historical narration in the same way that the search for physical concepts and laws controls the investigation of material phenomena. Doubtless his postulate of a perfectly disinterested, objective valuation seems to insure a similarly disinterested study of the facts involved. But as Signor De Michelis justly observes, the historian's varying estimate of what constitutes a value and its progressive movement will inevitably affect the number and colouring of the details chosen to elucidate its evolution. And, talking of evolution, one may be permitted to refer—as the author does not—to Schopenhauer's theory of the part played by 'happy accidents' in the development of an ape (or rather of its embryo) into something human. 'Natura facit saltum' as Darwin said. Now the 'saltus' is a historical event.

ALFRED W. BENN.

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- Édouard Krakowski, *Les Sources Médiévales de la Philosophie de Locke*, Paris, Jouvre & Cie., 1915, pp. 215.

VIII.—PHILOSOPHICAL PERIODICALS.

BRITISH JOURNAL OF PSYCHOLOGY. Vol. vi., Parts 3 and 4. **William Brown.** 'Freud's Theory of the Unconscious.' [A Critical Exposition of some fundamental ideas of the Freudian Psychology, especially those contained in the last chapter of the *Traumdeutung*, with a comparison between McDougall's psycho-physical theory of inhibition and some of Freud's ideas.] **T. H. Pear.** 'The Analysis of Some Personal Dreams with Reference to Freud's Theory of Dream Interpretation.' [These analyses of two dreams of the writer support some of the main points of Freud's theory of dreams and afford samples of 'dramatisation,' 'symbolism,' 'condensation,' 'displacement' and 'superficial association' in dreams. But they afford no evidence that unconscious and infantile wishes are essential causes of a dream.] **Carveth Read.** 'The Conditions of Belief in Immature Minds.' [Compares the imaginative beliefs of savages to "play-beliefs". Their utility is that they afford some emotional satisfaction and the rites connected with them serve as games. The idea that imaginative beliefs give rise to scientific ideas is criticised.] **Frank Smith.** 'An Experimental Investigation of Perception.' [The process of perception was found to begin with an immediate interpretation of the object, however brief the exposure of the object to vision. Persons of scientific training showed superiority in the method of analysis (but only nine out of thirty-two subjects were science students). Some persons with a strong tendency to subjective perception were also marked by a prominence of self-active imagery. Others with whom imagery was of little importance were little influenced by subjective factors in perception. Children of six years had no power of analysis of object and were very passive to suggestion. Secondary school children of twelve years had many powers and methods of adults, but children of twelve from a slum school were much inferior and were more liable to suggestion.] **C. W. Valentine.** 'The Colour Perception and Colour Preferences of an Infant during its Fourth and Eighth Months.' [New method of investigation described. Evidence afforded that an infant of three months may experience sensations of red, yellow, brown, green and blue. Suggestion made that preference is determined partly by brightness but also partly by power of colours to stimulate the organism, this being greatest in the case of colours at the red end of the spectrum. Signs of positive aversion from violet.] **T. H. Pear and Stanley Wyatt.** 'The Testimony of Normal and Mentally Defective Children.' [Evidence of children (ages, eleven to fourteen years) usually reliable only when given spontaneously. Then it is decidedly valuable, but in interrogated evidence it is much less reliable. Evidence as to actions was better than that as to qualities. Suggestibility increased with lapse of time between event and giving of evidence. No correlation found between general intelligence and suggestibility or resistance to it. Both sexes equally liable to suggestion. Individual differences less between children from school where discipline was very rigid. Mental

defectives gave fragmentary account of event, ignored chronological order, answered every question, and could not estimate lapse of time.] **Chas. Fox.** 'The Conditions Which Arouse Mental Images in Thought.' [An experimental investigation showing that any delay or conflict of ideas in the thought processes tends to arouse relevant imagery which may help towards the cessation of conflict. The contrary set of conditions is unfavourable to the production of images. Irrelevant images may occur under either set of conditions. It is suggested that children have more vivid imagery than adults because of more frequent difficulties in abstract thought.] **Godfry H. Thomson.** 'On Changes in the Spatial Threshold during a Sitting.' [Threshold found to fall sharply at first, then slowly, and later to rise again—due, it is suggested, to "end-spurt".]—Vol. vii., No. 1, May, 1914. **Henry J. Watt.** 'Psychological Analysis and Theory of Hearing.' [After a preliminary discussion as to views concerning the quality of sounds, the significance of pitch (in which appears the author's view that pitch is the analogue of local sign in vision and touch and that there are no differences of quality in sounds at all), and of the aspects of tone within pitch, the author proceeds to set forth his own theory of sound including a new interpretation of the functions of the basilar membrane, and to compare it with those of Helmholtz, Ewald and ter Kuile.] **Godfry H. Thomson.** 'The accuracy of the $\Phi(\gamma)$ Process.' **Rossiter Howard.** 'A Note on Pictorial Balance.' [A critical consideration of the assumption that the right and left sides of a good picture "balance" one another—including an analysis of some famous pictures.] **N. Carey.** 'An Improved Colour Wheel.' **C. S. Myers** (with contributions by **C. W. Valentine**). 'A Study of Individual Differences in Attitude towards Tones. [Attitudes towards tones discovered similar to those already found in perception of colours, viz., intra-subjective, objective, character and associative. Their dependence upon single tones and bichords and upon the height of tones is discussed and also their æsthetic value.] **Charles S. Myers.** 'Two Cases of Synæsthesia.' [The first is the case of the Russian composer Scriabin, whose chromæsthesia is dependent upon the tonality of the music. The second case is that of a lady painter, with whom the colour of a musical composition varies with the composer, that of individual tones varying with the pitch.] **C. W. Valentine.** 'The Method of Comparison in Experiments with Musical Intervals and the Effect of Practice in the Appreciation of Discords.' [Method of comparison as a method in æsthetic appreciation is unsatisfactory. Several subjects showed adaptation to discords in prolonged series of experiments, even preferring discords to concords at the end of the series.]

JOURNAL OF PHILOSOPHY, PSYCHOLOGY AND SCIENTIFIC METHODS.—xii., 8. **J. T. Shotwell.** 'The Discovery of Time,' 1. [On the beginnings of the calendar out of the practical needs of farming.] **H. B. Alexander.** 'Justice and Progress.' ["Law, right and justice find their fundamental sanction in the assumption of human progress" which "is to the logic of morals what the assumption of the uniformity of nature is to the logic of science". Both are "articles of faith, neither is obvious fact and neither rests upon compelling reason".] **E. C. Parsons.** 'The Aversion to Anomalies.' [Starts from anthropological evidence of intolerance towards anomalies, and argues to the conclusion that to make the anomalous suffer is wanton cruelty.] xii., 9. **T. de Laguna.** 'The Postulates of Deductive Logic.' [Examines the use of and principle of deduction and the principle of substitution in mathematical logic in order to show that "for deductive logic the interpretation of the symbols is logically prior to all else, for without that all else is non-

sense," and so that "it cannot cast itself entirely loose from the external connexions of common language and its consequent unclearness".] **D. Drake.** 'Practical versus Literal Truth.' [On "the danger of taking a practical truth for a literal truth" and rejecting it accordingly as false, especially in religious contexts.] **A. T. Poffenberger.** Report on the New York Branch of the American Psychological Association. xii., 10. **J. T. Shotwell.** 'The Discovery of Time,' II. [Traces the development of the calendar to the religious interest in determining *lucky* days, points out that astrology formed the unique case where the supernatural was calculable, and explains the importance of the moon in reckoning time.] **G. C. Cox.** 'Professor Adams and the Knot of Knowledge.' [A protest against the omission of Avenarius as an alternative to realism and subjectivism. The reference to G. P. Adams's article should be to xii., 3, not, as printed, to iii., 3.] xii., 11. **H. A. Overstreet.** 'Conventional Economics and a Human Valuation.' [A review of J. A. Hobson's *Work and Wealth*, which outlines "a humanising of the current economic definitions of utility, cost and value," and their application to production, consumption and distribution.] **G. C. Cox.** 'Individuality through Democracy.' [A plea for a real democracy giving an opportunity for self-development, as the 'Anglo-American' view of the individual, as against the 'Teutonic' and Platonic view.] xii., 12. **J. T. Shotwell.** 'The Discovery of Time,' III. [Discusses the Egyptian and the Babylonian calendar.] **R. W. Sellars.** 'A Thing and Its Properties.' [Knowledge of physical things "must not be interpreted in terms of the distinction between substance and its accidents which is a false form or category nowhere justified by experience and actually resulting from bad logic, bad psychology and bad theory of knowledge". But "the essential realistic attitude of common sense can be retained".] xii., 13. **J. Dewey.** 'The Subject-matter of Metaphysical Inquiry.' [Concerned "to indicate one way of conceiving the problem of metaphysical inquiry as distinct from that of the special sciences, a way which settles upon the more ultimate traits of the world as defining its subject-matter, but which frees these traits from confusion with ultimate origins and ultimate ends—that is from questions of creation and eschatology. The chief significance of evolution with reference to such an inquiry seems to be to indicate that while metaphysics takes the world irrespective of any particular time, yet time itself, or genuine change in a specific direction, is itself one of the ultimate traits of the world irrespective of date." Moreover, though "the existence of vital, intellectual, and social organisation makes impossible a purely mechanistic metaphysics" . . . "it does not signify that the world 'as a whole' is vital or sentient or intelligent".] **S. H. Diggs.** 'Relation of Race to Thought-Expression.' [Argues that though "all modern races are unquestionably blends," "races and peoples differ quite as much in their mental as in their physical make-up" and have "inherently different mental-sets," as is shown in their language, literature, institutions, material civilisation and religion. Thus Negro-English is entirely different from white-man's English (the author hails from Virginia), no copied literature can be great (*cf. Latin*), no Spanish-speaking people can have a republic in the American sense, all English-speaking countries are essentially republics of the same type, religion is racial and "psychologically speaking Christianity is neither Semitic nor Asiatic," its founder being "what biologists call a *sport*". It looks as though together with so many other German ideas their race-theorising were going to impose its extravagances on the Anglo-Saxon intelligence.] xii., 14. **E. B. Holt.** 'Response and Cognition.' ["Having ignored the *objective functional reference of behaviour*, we are led into the superstition of 'ideas' in the 'sensorium' which have an

'objective reference' to the environment." But "the only scientific view of it must be in terms of ionised nerve and twitching muscle". 'New realism' thus confesses its materialism through Prof. Holt.] **A. H. Lloyd.** 'Kant and after Kant.' [An attempt "to translate the old-time Kantian Transcendentalism into the recent creative evolution".] **E. Guthrie.** 'Russell's Theory of Types.' [Objects that it is not consistently worked out.]

"SCIENTIA" (RIVISTA DI SCIENZA). Vol. xv., No. 6, November, 1914. **E. Rutherford.** 'The Structure of the Atom.' [A short and able account of modern work on the subject.] **G. Bugge.** 'Physikalische Eigenschaften und chemische Konstitution.' [Account of modern work on the relations indicated.] **C. Golgi.** 'La moderna evoluzione delle dottrine e delle conoscenze sulla vita. Parte II^a. I problemi fondamentali psico-fisiologici.' **W. Deonna.** 'Qu'est ce que l'archéologie?' [It is a historical study which continues a psychological and physiological study of the forms of art.] Critical note. **A. Mieli.** 'La méthode Galiléenne et les sciences biologiques.' [Continuation of the author's note in the May number of *Scientia*. It is concerned with Rádl's opinion, in his *Geschichte der biologischen Theorien der Neuzeit* (2nd ed. Leipzig and Berlin, 1913), of the relations between the development of the biological sciences and the mechanical method of which Galileo was one of the greatest champions.] Book reviews. General reviews. **M. Davidson.** 'L'excentricité de l'orbite de la Terre et son effet direct sur le climat.' **A. Kronfeld.** 'Les tendances principales de la psychologie allemande contemporaine.' Review of Reviews. Chronicle. French translations of the English, German, and Italian articles. The first number of the next volume will be published in January, 1915, and will contain a new and unexpected feature. In the present European war, *Scientia*, true to its scientific and international character, has decided to emerge from its 'ivory tower of abstract synthesis' and to invite 'the most eminent philosophers, historians, sociologists, economists and jurists,' to treat thoroughly the question of the war and its causes. These authorities have been chosen from both of the opposing camps and also from neutral countries, and have either already sent their studies to *Scientia* or will soon do so. The object of this inquiry is to conduct an objective and calm investigation into the causes and sociological factors of the war; and not only will this inquiry be of great scientific interest, but it will also be of supreme and vital practical importance; for from this analysis we shall be able to conclude if, and in what way, the present war can, for the good of humanity and civilisation, preserve us for ever from other wars. Thus with the next volume *Scientia* will—for the present at least—appear every month instead of every two months, and, as usual, there will be a supplement containing French translations of the English, German, and Italian articles. Vol. xvii., No. 1, January, 1915. **A. C. D. Crommelin.** 'The Capture Theory of Satellites.' [Critical remarks on T. J. J. See's capture theory as exposed in vol. ii. of his *Researches on the Evolution of the Stellar Systems*.] **E. Rignano.** 'Le forme superiori del ragionamento. Parte I^a. : Il ragionamento matematico nelle sue fasi del simbolismo diretto e indiretto.' [Continuing the author's three articles in *Scientia* of 1913, this article contains an examination, strictly from the psychological point of view, of the logical process in its highest forms, that is to say, in mathematical reasoning. The results of this inquiry verify the results previously obtained. Four phases in the evolution of mathematical reasoning are chosen: those of direct symbolism, of in-

direct symbolism, of symbolic condensation, and of symbolic inversion. The two last phases will be treated in a second part.] **La Direction.** 'L'enquête de *Scientia* sur la guerre.' [Practically the same as the announcement at the end of the previous number of *Scientia*.] **L. Lévy-Bruhl.** 'Les causes économiques et politiques de la conflagration européenne.' [Occupied with the study of the 'causes' of the war in the sense in which the historians usually take this word: i.e., the examination of the conditions which determine events and which show themselves in the sentiments, the ideas, the passions, and the needs of individuals and peoples. The failure of Germany in making Alsace and Lorraine German, the Balkan question, the fact that Germany has no colonies to speak of, and some national characteristics are thus shortly treated in turn. Germany was the chief cause and aggressor, but the political and economical conditions in Austria helped.] **W. J. Ashley.** 'The Economical Side of the European Conflagration.' [Careful examination of the economic aspect of the war. Difficult as Germany's economic position is, it is not so difficult as to compel, by itself, a speedy termination of the war. Still, assuming that the Allies will win at last, 'the longer the war lasts the worse it will be for Germany, economically as well as politically. The longer it goes on, the more it will be straitened in its economic activity when peace returns. England has hitherto afforded Germany an elbow-room which has been highly convenient to it in the alternating expansion and contraction which form the cyclical movements of trade. This is very apparent to any one who looks into its industrial history and learns how it was it escaped so lightly from the great depression of 1901-1902. That elbow-room is going to be taken from it, and the more completely the longer it waits.'] **W. Wundt.** 'Deutschland im Lichte des neutralen und des feindlichen Auslandes.' [Wholly occupied with an anti-German article by the Norwegian Gerhard Gran and a letter from the Frenchman Th. Ruyssen, both of which criticise the author's pronouncements on the war. 'In this war Germany has only a few friends in foreign countries. . . . Even in neutral countries there is an unjustifiable feeling of aversion (*einer durch nichts gerechtfertigten Abneigung*) for Germany.' After this, it is interesting to read, in the above article by Lévy-Bruhl: 'The French people believe only too willingly that they are liked; the German people are persuaded that they are not liked. This last conviction, whether founded or not, does not make them more likeable. They imagine that they are envied or jeered at. They tend to believe that other people are always trying to wrong them.'] **Critical Note. A. Mieli.** 'Le réveil récent des études d'histoire des sciences et sa signification.' [The review *Isis*, which was until lately edited by George Sarton in Belgium, represents better than any other document the state at which the history of science has now arrived; this state is of reflexion and criticism, synthesis and philosophy. This note is general in character, and a more detailed examination of *Isis* will be published later.] **Book reviews. General Review. H. Pléron.** 'L'attitude objective dans la psychologie moderne.' [With special reference to Bechterew's recent work.] **Review of Reviews. Chronicle.** French translations of Italian, German and English articles. Vol. xvii., February, 1915. **J. Constantin.** 'Les lois de l'hybridation et l'action du milieu.' [Attempts to find out if the Mendelian conceptions are attackable or not. Heredity in mutation is both very stable and very instable, since a change of country brings the loss of a property which appeared, by experiments repeated in other countries, solidly established. These variations seem in agreement with the variations of nuclear cytology. There seems to be a very great difference between the new heredity of mutation and the heredity established by the secular action of the environ-

ment.] **E. Rigano.** 'Le forme superiori del ragionamento. Parte II^a. : Il ragionamento matematico nelle sue fasi di condensazione ed inversione simbolica.' [Continuation of the author's article in the January number. This part contains a rapid sketch of two phases of mathematical reasoning: In the infinitesimal calculus grew up and developed the habit of making many similar operations correspond to one symbolical expression; this phase of symbolism is here called 'condensation'. Symbolic inversion consists in the fact that a geometrical object represented by a given algebraic expression becomes a symbol, in its turn, of other analogous algebraic expressions which do not represent any geometrical fact. In the next and last part, the author will state his conclusions about the relations between mathematics and mathematical logic. It must be remembered that this series of articles is written from a purely psychological point of view.] The Enquiry upon the War. **A. Landry.** 'Les origines, les causes, les lendemains de la guerre actuelle.' [The war was the deed of Germany, not of Austria nor of any other country. Neither honour nor interest impelled Germany to the war, and yet she had prepared for it with incredible minuteness. It is in pathological phenomena of collective psychology that we must seek for the explanation of the war; and not in motives of an economical kind, such as over-population, which have not at present a great influence in Germany. 'There are reasons for hope in the future. Perpetual peace is after all only an ideal of which nothing guarantees us the realisation.'] **O. Lodge.** 'The War from a British Point of View.' ['Considered from our point of view the war is seen to be a war of ideals, a conflict between two ideals of government—the English ideal of a commonwealth of nations . . . and the Prussian ideal of a single glorified State.' Since 1870 the great men of Germany have been few. 'The errors which are now supreme in Germany are: first, a glorification of war, based on a misreading of Darwinism; and, second, an enthronement of mere power, a belief in the unmoral supremacy of the State.'] **G. von Below.** 'Militarismus und Kultur in Deutschland.' [Some of the adversaries of Germany either condemn German culture or German militarism. But without militarism there would be no German culture.] Book Reviews. General Review. **G. Stefanini.** 'Sur l'histoire géologique de la Méditerranée.' French translations of the German, English and Italian articles. Vol. xvii. No. 3, March, 1915. **F. Frech.** 'Die Salzseen Anatoliens und ihre Bedeutung für das Problem der Entstehung der Salzstöcke der Erdrinde.' **E. Rignano.** 'Le forme superiori del ragionamento. Parte III^a: Matematiche e logica matematica. [After a summary of the conclusions which the author's two previous articles allow him to draw about mathematics in general and the function that symbolism has had in them, the author passes to a comparison between mathematics and the other and newer great branch of higher reasoning known as 'mathematical logic'. The same marvellous fertility that symbolism in mathematics properly so-called has shown is not to be expected of mathematical logic, and the exaggerated pretensions of Russell and Couturat that mathematical logic alone is enough to construct all mathematics, 'without having any need of ultimate inductions,' cannot be admitted. It may be permitted to the reviewer to remark that this is another instance of the confusion in the thought of many people between the logical point of view of Russell and Couturat and the psychological point of view, which is that of the author. From his point of view the author defines mathematics as 'the science in which the experiences simply thought and constituting the reasoning in it are of a very general quantitative (or we may add ordinative) nature which is capable of rendering the most various physical phenomena equivalent with respect to the results that they give.] The Inquiry

upon the War. **V. Pareto.** 'La guerra e i suoi' principali fattori sociologici.' [Tries to develop wholly objective considerations and to give an account only of facts, relations of facts, and their uniformities. An admirable and judicial article.] **W. J. Collins.** 'The Aetiology of the European Conflagration.' [The deeper origin of the war is in a conflict of two opposed conceptions of the functions and ideals of the state and the significance and nature of international engagements. One of these conceptions 'is characterised . . . by the dominion of the material, the physical, the mechanical and the merely intellectual over the ideal, the ethical, the moral, and the spiritual. The exaltation of Science as the supreme or only knowledge, the denial of the intuitive and transcendent, the negation of free-will, the subordination of liberty, the deprecation of the altruistic are its natural offsprings and exhibit an unlovely family kinship among themselves.' With regard to the attitude towards the teachings of religion by those who hold these views, we read: 'One group by specious employment of casuistry discovers that never was there a religion more combative than that of the author of the sermon on the mount, and that war receives its moral justification from the inspiration of the Christian faith. Another group, with greater candour, recognises the hopeless incompatibility of the new cult with the altruism and compassion of Christianity: they are accordingly prepared to clear away the accumulated rubbish of twenty centuries and replace it with a brand-new religion for Super-men promulgated by superior persons under the patronage of an Erastian State.' The people who hold the opposite conception are not dealt with.] **E. Meyer.** 'Englands Krieg gegen Deutschland und die Probleme der Zukunft.' [An interesting article from the point of view of evidence. 'Nobody in Germany doubts that England is our mortal enemy and has brought this war upon us for her own interests. . . . This conviction comes from the depths of the national soul. . . . There can be no doubt that the English Government has deliberately provoked this war. . . . King Edward VII., a German by descent, paved the way for it. . . . The pretext of the *pourparlers* of 1906 between military *attachés* of Belgium and England was naturally the fiction that Germany would not respect the neutrality of Belgium.' Compare what follows with the preceding article. 'The conflict,' says the present author, 'also is really between two opposed conceptions of the state: for the German, liberty means the spiritual and spontaneous development of his own personality, and consequently complete independence, not reached by the Englishman, of "public opinion," but subordination to the interests of the community, of the ideal ends of his nation.' German politics 'is inspired by idealism and a conscience of duty'.] Critical note. **G. Chatterton-Hill.** 'L'esprit de l'Allemagne moderne d'après les *Œuvres choisies* de Treitschke.' [On Treitschke's *Ausgewählte Schriften*.] Book Reviews. Review of Reviews. Supplement containing French translations of the Italian, English and German articles.—Vol. xvii., No. 4, April, 1915. **A. Miceli.** 'La posizione di Lavoisier nella storia della chimica.' [We cannot hold the current opinion about the place of Lavoisier in the history of chemistry, but still his merits are not diminished. Instead of inaugurating a period, Lavoisier closed a period beginning with Boyle. He used and followed up the works of his predecessors, but of course is no more to be called a plagiarist on this account than is Galileo or Newton. His work made possible the rise and growth of new problems, but in the establishment of the solutions of them he had no share.]

IX.—NOTE.

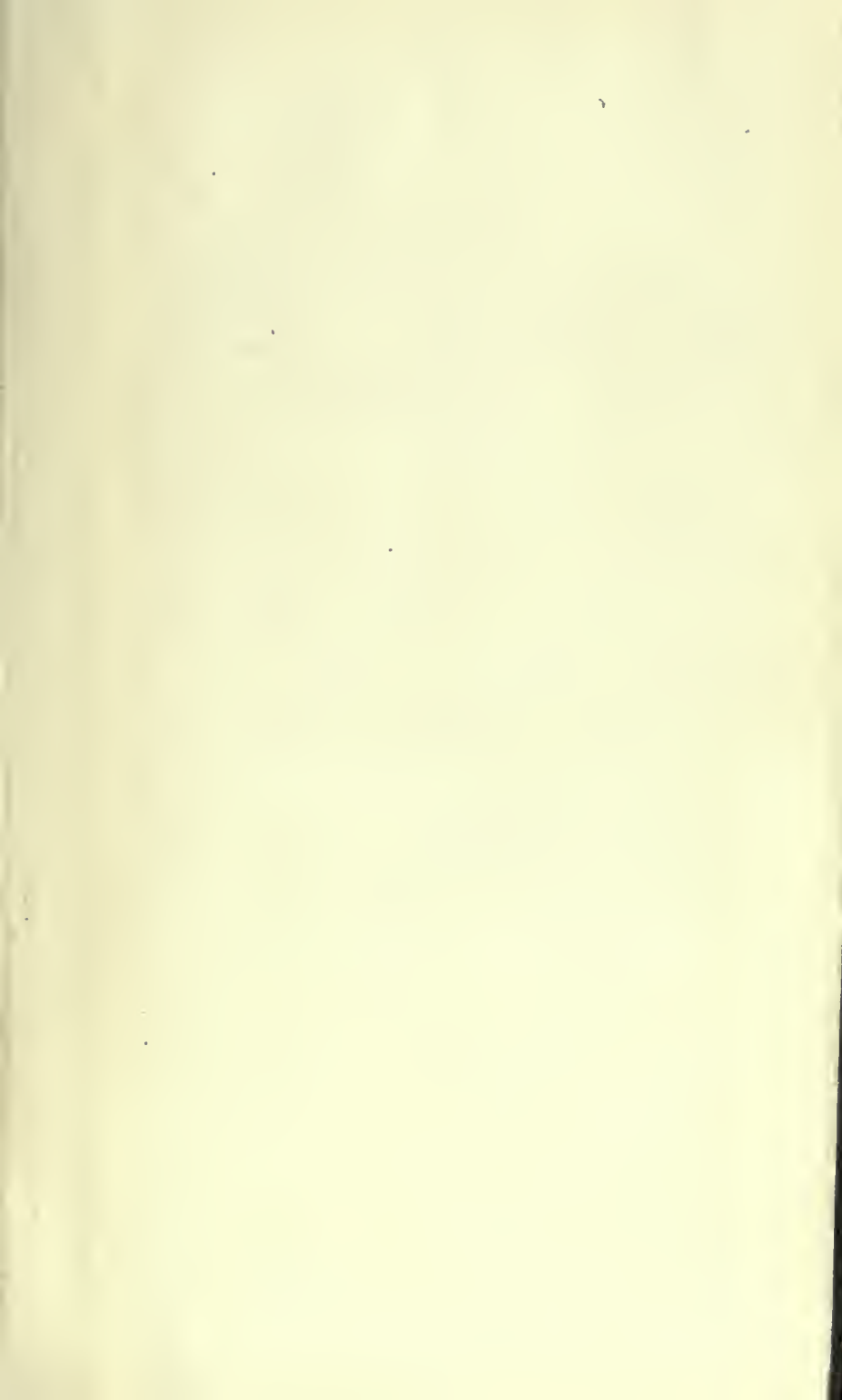
OCCAM'S RAZOR.

It seems clear, as Mr. Thorburn has shown (MIND, vol. xxiv., N.S., No. 94), that Ockham, even if he ever used the phrase "*Entia non sunt multiplicanda*," etc., certainly preferred "*Pluralitas non est ponenda*". The usual form of the 'razor' seems very clumsy. I have never myself found it in any work of Ockham's; but it is quite possible that he did use it. In any case his preference for the form "*Pluralitas non est ponenda*" is very reasonable, in view of his complaint against Scotus that the 'doctor subtilis' created imaginary things which did not exist. "*Entia nou sunt multiplicanda*" seems to be a rule about "real things": it seems to imply that one could "multiply" them. But, Ockham might say, if you try as 'hard as you like,' the mind cannot bring any object into existence nor, by knowing it, make any difference to the object known.

"*Pluralitas non est ponenda*" would mean "You must not *suppose* that more things exist" than you have evidence for. And in the same way "*Frustra fit per plura quod potest fieri per pauciora*" means that an explanation is useless of what is already explained. This phrase, by the way, may be found in the treatise "*de Sacramento altaris*" (p. 3) besides the places referred to by Mr. Thorburn.

The force of Ockham's objection against Scotus was that logic and metaphysic were distinct. Both the thing and the universal are "*entia*," one "*in re*" the other "*in mente*". Only a Scotist could think that the law of parcimony had anything to do with "*entia*". This is perhaps a mere matter of words; but words to a man like Ockham were not unimportant, and he was very careful with his original razor to make it cut only *hypotheses* (ponere, etc.). As a hit at Scotists he might have said "You must not make so many realities"; but in his philosophical argument he never seems to have forgotten his original contention that "*entia*" are quite untouched by logic.

C. DELISLE BURNS.









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