

The Open Court

A MONTHLY MAGAZINE

Devoted to the Science of Religion, the Religion of Science, and the
Extension of the Religious Parliament Idea

Founded by EDWARD C. HEGELEK

VOL. XXXIX (No. 2)

FEBRUARY, 1925

(No. 825)

CONTENTS

	PAGE
<i>Frontispiece. Tomb of Absalom.</i>	
<i>Palestine: The Land of Many Sacred Sites.</i> AMOS I. DUSHAW.....	63
<i>The "I"—An Egoistic, Perhaps Egotistic Divagation.</i> ROBERT SPRAGUE HALL	72
<i>Imageless Beauty.</i> HELEN HUSS PARKHURST.....	86
<i>Personality and Evolution.</i> G. C. NEWTON.....	98
<i>Referendum on War.</i> JAMES D. BARNETT.....	109
<i>Science and the End (Continued).</i> KEIGHLEY SNOWDEN.....	115

The Open Court Publishing Company

172 S. Michigan Ave.

Chicago, Illinois

Per copy, 20 cents (1 shilling). Yearly, \$2.00 (in the U.P.U., 9s. 6d.)

Entered as Second-Class Matter March 26, 1887, at the Post Office at Chicago, Ill., under Act of March 3, 1879.
Copyright by THE OPEN COURT PUBLISHING COMPANY, 1924.

SIGNIFICANT BOOKS ON RELIGIOUS SUBJECTS

The Story of the New Testament

By *Edgar J. Goodspeed*

Presents in a vivid and popular manner the situations out of which the New Testament books arose.

\$1.50, postpaid \$1.60

The New Orthodoxy

By *Edward S. Ames*

A new edition of this popular constructive interpretation of man's religious life is soon to be issued.

\$1.50, postpaid \$1.60

The Rise of Christianity

By *Frederick O. Norton*

A complete story of the origin and messages of Christianity.

\$2.00, postpaid \$2.10

The Social Origins of Christianity

By *Shirley Jackson Case*

Emphasis is placed upon the social environment as a formative factor in determining the rise and development of the Christian movement.

\$2.50, postpaid \$2.60

Stories of Shepherd Life

By *Elizabeth M. Lobingier*

A single Sunday-school project built around the life-activities of the early Hebrew shepherds.

\$1.50, postpaid \$1.60

Religion in the Kindergarten

By *Bertha Marilda Rhodes*

Designed to help the thousands of teachers who have not had special training in kindergarten methods to present religion to little children in a concrete, simple, and dramatic way.

\$1.75, postpaid \$1.85

PRINCIPLES OF PREACHING

By *Ozora S. Davis*

"Sermons of power" rather than those popularly called "great" have been used in this new text for the student of homiletics and the preacher who desires his sermons to gain in power, persuasiveness, and beauty of form. Ainsworth, Spurgeon, Bushnell, Beecher, Chalmers, Robertson, Brooks, and Newman are represented. \$2.50, postpaid \$2.60.

THE PROJECT PRINCIPLE IN RELIGIOUS EDUCATION

By *Erwin L. Shaver*

"Project" is the most recent term with which to conjure in educational circles. While this is particularly true in the world of public education, it is likewise significant that those engaged in the task of religious education, for whom this book is intended, are not far behind. The writer believes that there are great possibilities for project teaching in the field of religious education. This volume of theory and practice is an attempt to set forth such possibilities. It is the first in its field.

\$2.75, postpaid \$2.85

PRINCIPLES OF CHRISTIAN LIVING

By *Gerald Birney Smith*

Ethics is not just a principle about which to theorize; it is one to be applied. This is the theme of Dr. Smith's new book on Christian ethics. His aim is to indicate the motives which enter into Christian living as the individual finds himself a member of various groups in actual life. The book is destined for every pastor's library.

\$2.00, postpaid \$2.10

THE NEW TESTAMENT

(An American Translation)

By *Edgar J. Goodspeed*

In preparing the American translation, Dr. Goodspeed has sought to provide a version that should not only convey the original meaning, but should also be a book to be easily and pleasureably read. He has removed the stumbling blocks of a centuries-old vocabulary, a mechanical word-by-word translation, and a disturbing verse division that retards and discourages the reader.

\$1.00 to \$5.00, post-age 10 cents extra

Write for the Latest Issue of "About Religious Books"

THE UNIVERSITY OF CHICAGO PRESS

5832 Ellis Avenue

Chicago, Illinois



TOMB OF ABSALOM (in the Valley of Jehoshaphat, near Jerusalem)

Engraving to The Open Court.

THE OPEN COURT

A MONTHLY MAGAZINE

**Devoted to the Science of Religion, the Religion of Science, and
the Extension of the Religious Parliament Idea.**

VOL. XXXIX (No. 2)

FEBRUARY, 1925

(No. 825)

Copyright by THE OPEN COURT PUBLISHING COMPANY, 1925

PALESTINE: THE LAND OF MANY SACRED SITES

AMOS I. DUSHAW

TO appreciate the full significance of the words—The Holy Land—it is absolutely necessary to spend some time there; visit her cities, villages, valleys, plains, and rivers, on and off the beaten path. I know an American who spent a day and a half in the Holy City, motored to the lake of Galilee and returned in time to take the train for Jaffa where the tourists' boat was waiting for her scattered and sight-seeing flock. This gentleman is now speaking on the problems of Palestine and the Near East. Go where you will, and you are never far away from some spot that some people consider sacred. To the shallow observer this may appear to be nothing more than simply bits of superstition from which primitive folk cannot easily free themselves. But to the student this means more, and instead of scoffing at their credulity he soon learns to appreciate their spirit of reverence. For example: in the wilderness, far from permanent settlements, save for some poor families dwelling in caves, real troglodytes, and a few Bedouin encampments, I saw such a spot. It was the grave of a Sheikh, and on the top of it were primitive tools and a few simple farm implements. The owners placed them there for safety, knowing that no one would touch them while they were there. Many of these sacred places are very ancient, and some more modern. A rumor that the spirit of a dead neighbor had appeared at a certain place makes that spot sacred, and some monument is erected to his memory. The departed ones who are honored in this way were not always of saintly character. For example: a building was erected over a grave in a certain village to the memory of one who carried water in an ordinary wicker-basket because there were no pails or jars at that particular time. This was considered a miracle. Within these mausoleums the villagers put various articles

for safety, knowing that no one will steal them. Fruit trees adjoining such places are sacred, and no one will take the fruit. However, such places are not always tombs. At Ramallah, a Christian village, about ten miles from Jerusalem, the Christians use an old mosque, while at Samaria, the Moslems use an old Christian church. At Samaria the Moslems show a grave they believe to be that of John the Baptist. To the student of the Bible these sacred places are a reminder of the High Places in ancient Palestine. What were they?

A cursory reading of the lives of the kings of Judah brings to our attention the oft-repeated words, "Howbeit the high places were not taken away; the people still sacrificed and burnt incense in the high places." Hezekiah was the first king to make the attempt to remove them, but his son Manasseh soon restored them. It was Josiah, the grandson of Manasseh, who finally put an end to them. "He put down the idolatrous priests, whom the kings of Judah had ordained to burn incense in the high places." Until the time of Josiah, sacrificing and the burning of incense was carried on in these high places, and later also at Jerusalem. Jerusalem simply became the most prominent of them. In I. Kings iii. 3, 4, we read that before the Temple was built Solomon "went to Gibson to sacrifice there; for that was the great high place." At this place God appeared to Solomon in a dream by night.

Josiah's destruction of the high places was most thorough. He also destroyed the chapels built by Solomon for his wives. In some instances Josiah killed the priests who officiated at these places. He destroyed every high place from Geba on the North to Beer-Sheba in the South, including the famous and time-honored place at Bethel and those throughout Samaria. This Reformation was no doubt the most iconoclastic on record. He carried out the command as given Deuteronomy xii. 2, 3, to the very letter. "Ye shall surely destroy all the places wherein the nations that ye shall dispossess served their gods, upon the high mountains, and upon the high hills, and under every green tree." In the attempt to centralize worship at Jerusalem many places associated with the sacred memories of their ancestors were also destroyed.

But this drastic effort to purify religion and save the state was not successful, and it was not long afterwards that both Jerusalem and the Temple were destroyed, and religion was saved in spite of it. The high places were the village churches, and around each shrine centered the religious and social life of the community. After the destruction of these shrines life in the villages must have been

quite dull, especially as we know that a sacrifice was in most instances a family feast. From the time of Josiah until the destruction of the second Temple under Titus we have no record that the Jews of Palestine ever sacrificed outside of Jerusalem. But after the Exile the synagogues took the place of the high places. Instead of sacrificing and the burning of incense the synagogues served a nobler purpose. Here the Rabbi and Teacher, not the Priest, officiated. We will now consider very briefly the high places in modern Palestine.

It will no doubt come as a surprise to many to call the sacred places the High Places of modern Palestine. A writer on Palestine who made a special study of this subject said, "It may be said of every site of Old Testament times, that is known or supposed to be known, and of many later sites, including crusading remains, that the superstitious reverence of the peasantry clings to them. Add to these the shrines of the dervishes and the insane, which are often revered as devoutly by Christians as by Moslems, and one begins to recognize the existence of powerful religious influences quite independent of the teachings of Christianity or Islam." He might have added, "and also of Judaism." It is true that at these places the devout do not sacrifice or burn incense, but they do burn oil. Almost every native village has its shrine, called a *Weli*. It is generally a domed building over the grave of a sheikh. The spirit of the place is interceded with, and vows are made in case of answered prayer. And the natives tell the most wonderful stories of answered prayers. They also tell of the spirit persecuting those whose prayers were answered and who failed to carry out their vows. They also have their sacred trees, and to the branches of these trees they tie rags to remind the spirits that they made their requests and vows.

The following illustration will give some idea what the natives think of some of their shrines. My American friend who was making a special study of the *Welis*—before entering one of them was carefully warned by the friendly natives not to do so—because they feared that the spirit might resent the intrusion of a foreigner and kill him. He entered, but before doing so was requested to take off his shoes as a mark of reverence. He took a picture of the interior while the natives looked on in breathless silence, and were greatly astonished when he came out unharmed.

The Jews have their sacred shrines also. Rachel's tomb, about a mile from Bethlehem, is one of these. This is the only spot of Old Testament interest to which the Jews have exclusive rights, and the chief rabbi of Jerusalem has the key to it. They assemble here from

time to time for prayer. They do the same at Hebron where the patriarchs are buried, but they do not have ready access to the graves of their forefathers. The Moslems refuse them this privilege, and before the war Christians were also refused this privilege. And wherever a rabbi of note is buried the Jews resort to his tomb for prayer. A short distance from the American colony at Jerusalem is the tomb of Simon the Just. The caretaker has oil lamps burning



Tomb of St. Saba at Mar Sabba

on the saint's grave, and I have seen Jews rush in, offer a prayer for themselves and friends far away, and then contribute towards the upkeep of the light. The caretaker charges about twenty-five cents per prayer. He prayed for my American friend and I, but before doing so insisted that we pay the fifty cents in advance. He then asked us if we had any family, but refused to pray for them unless

we paid twenty-five cents for each person. At Tiberias on the lake of Galilee they have several such places where famous rabbis are buried, Akiva, scholar and saint, who espoused the cause of Bar Cochba, the false messiah; Johanan Ben Sakai, and Maimonides, talmudist, philosopher, and physician. At the graves of Johanan Ben Sakai and Maimonides, a Spanish-Jewish rabbi who was our guide prayed for my friend and I. At the conclusions of his prayers we gave him what we thought was a generous fee, but he asked for more. And when we told him that we were Christian ministers, he said, "Never mind, Jesus was a Jew." In each of these graves there is a niche where the devout and superstitious place their oil



Tomb of Simon the Just

lamps when they come for special prayer. Jesus must have had such places in mind when He said, "Woe unto you, scribes and Pharisees, hypocrites! For ye build the sepulchres of the prophets, and garnish the tombs of the righteous, and say, If we had been in the days of our fathers, we should not have been partakers with them in the blood of the prophets." About a quarter of a mile from the Lake, on the side of a hill facing the East is the lonely grave of the great Rabbi Akiva. The fact that he was led astray by Bar Cochba does not lessen his worth in the estimation of his people. But Jesus, the greatest of all Jews, the noblest benefactor of the ages, past and present, is still despised and rejected by His own. What strange

inconsistency! And yet Jews will boast that they are strict monotheists and do not believe in mediators!

Thus in spite of all that has transpired during the past millenniums: the destruction of the high places by Josiah, the rise of post-exilic Judaism, Christianity and Mohammedanism, today in Palestine, on the hill-tops, or hill-sides, or in some secluded spot in a valley away from the main roads, and also on main roads may be seen the modern high places and sacred trees which Deuteronomy condemned to which Jews, Christians, and Moslems go in time of need to pour out to the spirit of the place their hearts' desires. They are doing what Hannah, the mother of Samuel, did when she went to the high place at Shiloh where she prayed for a son, and made



Grave of Johanan ben Zakai

a vow to the Lord. However, a victory for decency in religion has been won. At these modern high places, Jewish, Christian, and Moslem, a spirit of reverence is maintained, and the places are clean, physically and morally.

The sacred sites and the new order. At this time we should be on our guard against all the wild reports which appear from time to time in the Secular and Religious press. It is not so long ago that an article appeared in the *New York Times*, written by an American tourist, that the Jews were in danger of being wiped off the face of the earth by an aroused Christian world—up-to-date crusades—because of a rumor that the Jews were planning to damage the Church of the Holy Sepulchre. If there is any danger of this sacred edifice

being damaged, it will be, not at the hands of Jews or Moslems, but at the hands of quarreling Christian sects, Romans, Greeks, and Armenians. During the Turkish occupation, when no Jew was permitted to enter this Church, Turkish troops were generally on guard to protect Christians from hurting each other. The same was true of the Church of the Nativity at Bethlehem. Another report has been circulated from time to time, in England and America, that Jews were planning to purchase the Temple area for the purpose of building a Third Temple. This place is owned and controlled by Moslems, and quite naturally they did not relish this rumor. At any rate, purchasing it sounded better than taking it by force. British tourists have asked me as to the truth of this report. These wild



Grave of Maimonides at Tiberias

reports, the offspring of fancy, or mischief-making minds, are damaging to the best interests of Palestine. Whatever injures one race or sect injures all. Idle rumors and wild talk, with no basis of fact, is the cause of much injury to all the races and sects of Palestine.

The latest report from Palestine is the establishment of the "Palestine Bank of Commerce and Industry." This is strictly a Palestine institution, and its board of directors are Moslems, Christians, and Jews, and its aim is to aid all worthy native enterprises. Such institutions generally make for peace, and under British protection, sooner or later, mutual confidence will be restored, and we shall hear less and less of strife, and more and more of Peace and Progress.

THE "I"

AN EGOISTIC, PERHAPS EGOTISTIC DIVAGATION

BY ROBERT SPRAGUE HALL

I CAN remember how, for the first time, I became conscious of my personality. In a flash of insight I asked myself, "How is it that *I am here?*" I remember almost the spot where this idea came to me, a boy of perhaps nine years, on my way to school. But it led to nothing more than wonder, and a feeling of standing alone and unique in the world of my experience, and with the conviction that every other person must experience the consciousness of a like isolation and uniqueness. Only many years later did I concern myself with the meaning of self-consciousness and with the efforts of psychologists to explain it. But now, for many years, I have had the problem, in one aspect or another, in my thoughts, and it has gathered from associated problems so many suggestions, that I have come to regard it and them as parts of an intelligible scheme of things.

One of the fruits of my college course in Logic was the storage in my memory of certain significant phrases or catchwords, such as "begging the question," "arguing in a circle," etc. One of these, known as Occam's razor, neatly expressed in Latin, may be Englished thus: We ought not to introduce into our reasoning any element that we don't need. The maxim has played an important part in modern psychology. It is the cause of the complaint, by those who do not appreciate the methods of that science that it is psychology without a *psyche*, i. e., without a *soul*. In fact, it can get along very well without postulating a soul, better, indeed, than can optics, thermo-dynamics, electro-dynamics, without postulating light, heat and electricity; for these latter designate forces that enter in calculable fashions into the problems with which those branches of science deal. Soul, however, represents no concept that affords

any assistance in dealing with the problems of the mind's operations. As William James says, *Psychology*, Vol. I, p. 182, "We must—ask ourselves whether after all, the ascertainment of a blank unmediated correspondence, term for term, of the succession of states of consciousness with the succession of total brain processes; be not the simplest psycho-physic formula, and the last word of a psychology which contents itself with verifiable laws, and seeks only to be clear, and to avoid unsafe hypotheses." And he decides "to take no account of the soul" in his book.

Even the word mind is too vague a term to convey any definite meaning, or perhaps too likely to carry with it misleading implications. "Cerebral activity" or "cerebration" are harmless, and convenient because sufficiently vague.

Mind is generally taken to imply consciousness or the possibility of consciousness. "Presence of mind," "I have in mind," "bear it in mind," are examples. But cerebral activity includes, besides the mental processes of which ordinarily we are conscious, a vast number of which we never become conscious, some of which we rarely become so, and some that, without being conscious are indistinguishable in their results from our most vividly conscious activities. Examples of the first class are the processes that control and regulate the functions of our various organs, e. g., the circulation of the blood, the digestive activities, etc., of the second, the efforts that maintain our erect posture and direct our ordinary movements, as well as those that, by dint of practice, have become automatic, as we say. Of all these efforts we were once conscious, and in a general way, are still so, but not to the degree or in the manner that marked their first exercise.

Of the third class are all conscious activities whatever, since we know of none that is not capable, in some persons, at some time, of being carried on without a trace of consciousness, e. g., in sleep. Occam's razor commands us to eliminate this class, and thus dismiss consciousness, as an element of no importance in mental activities and of no use in effecting their classification. But the late William James has strongly expressed himself in favor of the opposite view.

"The particulars of the distribution [among members of the animal kingdom] of consciousness," he says, *Psychology*, Vol. I, p. 138, "so far as we know them, point to its being efficacious," and *Ibid.*, p. 134, "*A priori* analysis of both brain action and conscious action shows that if the latter were efficacious, it would, by its selec-

tive emphasis make amends for the indeterminateness of the former, whilst the study *a posteriori* of the distribution of consciousness shows it to be exactly such as we might expect from an organ grown too complex to regulate itself." But he afterwards says, *Ibid.*, Vol. I, p. 589, "From the guessing of newspaper enigmas to the plotting of the policy of an empire, there is no other process than this. We trust the laws of cerebral nature to present us spontaneously with the appropriate idea."

But in that case, what is there left for an "organ" of consciousness to regulate? And how is it possible to trust "a system grown too complex to regulate itself" to "present us spontaneously with the appropriate idea"? Again, when there flashes into the mind the solution of a problem long consciously, but vainly, sought, what organ has regulated the brain? It has become common knowledge that such complicated cerebral activities may go on while we are unconscious of them, perhaps in sleep, or while we are awake and are conscious of occurrences and thoughts quite alien to those activities. After all, our daily life is carried on in exactly this fashion. Our cerebral system seems to be arranged in departmental fashion, each department attending to its own work without interference from the others. Being in the same building, as it were, there is often awareness of one on the part of another of them, or even communication between them.

Now as to the emphasis supposed by James to be given by consciousness. Emphasis is always present, and we are often conscious of it. But it does not always help, and sometimes it interferes. For example, when we are trying to recall a name or other datum of past experience, if undue emphasis is thrown upon a supposedly significant circumstance or element, it may prevent the free search of the mind in other directions and retard its arrival at the desired result. Even as James says, "we trust our cerebral nature," if we are wise, "to present us spontaneously with the appropriate idea."

But is it an "organ" of consciousness that lays the emphasis on this or that in our thoughts? To me it seems that the cerebral system lays the emphasis, and consciousness is our awareness of the fact. Why this should be so is the mystery. Why, for example, without any conceivable stimulus from the outside world, and at a juncture of time quite without significance, as far as I can discover, should the idea of my personality have emerged in my consciousness, as described at the beginning of this paper? Why should we be conscious, now of the most trivial ideas in our stream of thought

and perhaps unconscious of the most important and far-reaching ideas, or again, conscious only of these last? It is true that trivial things sometimes stimulate cerebral activity out of all proportion to themselves and that far-reaching experiences are often not appreciated at the time and produce their impressions only slowly and by combination with other elements. But all that goes on, for the most part, in our subconscious or unconscious selves, although, from time to time, parts of the process may emerge into consciousness.

But let me cite a few other passages from Mr. James from the same chapter as the foregoing, that on the Automaton Theory. "Common-sense has the root and gist of the truth in her hands when she obstinately holds to it that feelings and ideas are causes—and so are furtherances and checkings of internal cerebral motions of which in themselves we are entirely without knowledge."

"Whatever our ideas of causal efficacy may be, we are less wide of the mark when we say our ideas and feelings have it than the automatists are when they say they haven't it."

"The [brain] will be for us a sort of vat in which feelings and motions [*ideas*, I should say] somehow go on stewing together and in which innumerable things happen of which we catch but the statistical result."

"The feelings can produce nothing new, they can only reinforce and inhibit reflex currents which already exist."

Now we know that the reflex action following certain stimuli may occur so quickly that we are unconscious of any feeling, such as under other circumstances the same stimuli produce in us.

To go back to a passage above quoted, I would say that feelings and ideas *are* furtherances and checkings, nay are the very motive forces of all action. By *ideas* I would understand every result of a reaction of the cerebro-spinal system to a stimulus, beyond the bare feeling aroused, whether the stimulus be from the external world or from the organism itself, as well as all developments of such results, by their reaction upon each other, meaning to divide the activities of the neural substance awakened by stimuli into feelings and ideas, sometimes distinct from each other sometimes closely associated. Both would seem to be results of impressions, ideas however to be definite records of facts in experience, while feelings are excitements of a pleasureable or painful or neutral character, by the experiences or by memories of them. It is obvious that if an idea embodies facts that excited painful sensations the stimulus that would arouse that idea to activity would awaken to

some extent those painful feelings, unless the idea had become so modified by other ideas that it has lost the elements of the original experience that produced the painful feelings. In fact, all of our feelings of pleasure and pain except the comparatively few derived from bodily sensations, are due to ideas. And these ideas may have gained their power of thus affecting our feelings by very slight, often by vicarious reference to experience, as when a mere recital of tragical events, not one of whose elements of horror ever came within our experience, may arouse in us a lively perturbation of mind. Is it not plain that those ideas and feelings of which we are conscious arise from causes of whose existence we should be aware only from this consciousness? Who can tell why an idea that in one person arouses a certain feeling, arouses in another person a very different feeling? Sometimes, it is true, the history of the individual, as known to others or to himself affords an explanation of the phenomenon, but oftener its cause is lost in the void of forgotten experiences.

Again, the idea associated with a feeling may become lost or mutilated to insignificance, while the feeling is ever ready to respond as a reaction to the sort of stimulus that first aroused it.

The elementary phenomena seem to be these, i. e., feelings or emotions are primarily the results of sensations. They lead to the creature's efforts to continue in the same momentary environment or to escape from it, according as the feeling is pleasant or the reverse, or perhaps the sensations are too weak to provoke action. There are always a greater or less number of sensations associated with the one that stands out as determining the feeling. The perceptions that arise from the whole group of sensations get tied together by mere simultaneity of origin as do the various concepts resulting from them, any one of which may then be sufficient, when later entering the mind, to call up one or all of the rest, or without so doing, so far as consciousness is aware, may awaken the associated feelings.

"If we start," says James, "from the frog's spinal cord and reason by continuity saying, as that acts so intelligently, though unconscious, so the higher centers, though conscious may have the intelligence they show quite as mechanically based; we are immediately met by the exact counter argument from continuity," i. e., starting from the hemispheres, "as these owe their intelligence to the consciousness which we know to be there, so the intelligence of

the spinal cord's acts must be due to the invisible [unfelt?] presence there of a consciousness lower in degree."

The error here lies in assuming the very thing to be determined, i. e., that consciousness is a cause of intelligence.

"All arguments from continuity," continues James, "work in two ways: you can either level up or level down by their means. And it is clear that such arguments as these can eat each other up to all eternity."

Why not accept the truth of both arguments, and reconcile their apparent inconsistency by avoiding the quite gratuitous assumption that consciousness has any causal efficacy whatever? The facts then appear to be that the various parts of the nervous system are capable of intelligent action in their several spheres of influence and that in the hemispheres this action may be accompanied by consciousness. The action need not, in any case, be stigmatized by the adjective "mechanical," which has acquired a derogatory sense, and is besides misleading. It is enough to say "reflex," meaning responsive to stimuli such as we find to affect nervous organisms.

We know not how any brain activity gives rise to thought, or, indeed, what thought is, but we need not assume what we do not know and what may be false, i. e., that our consciousness of an idea or of a thought is an agent in bringing about such an activity. We do know that our brains are stimulated and this because of the feelings that we experience. Conscious of these, we may at the same time become conscious of some idea that has become associated with such feelings by former experiences. For we know that the reaction of our nervous system to stimuli takes place quite independently of any ideas that may accompany them.

But may not the ideas have the power to reverse the process, as a phonograph reproduces the sounds that made its "records"? May not the ideas awaken the sensations and feelings that produced them, or were at least intimately associated with them? Nay may not ideas become the sources of emotions *of a kind* that tend to produce such ideas? It would seem so. The action and reaction of the elements of our mental life is so intricate and so rapid that it would seem to be impossible to determine the initial element in any group of activities. When we are in a quiescent mood, innumerable ideas flit into our stream of thought, whether we are awake or asleep. Perhaps one of these is that of a duty to be fulfilled, and we seek to fulfill it, or of a pleasure to be obtained and we set about securing it. But the ideas may enter yet give rise to no tendency to realize them

in action. It would seem as if, after all, impulses must be sources of action. And again, it may happen that before we can obey the call to action that seems to be aroused by an idea, our tendency to do so is inhibited by an emotion that may not, at least at first, be accompanied by any conscious idea. Here, however, we seem to be thrown back upon some subconscious idea, awakened by association with that in evidence, which gives rise to the inhibitory impulse. If the opposing impulses be nearly equal in strength, the struggle between them is likely to awaken an abundance of ideas. But I should say that the contest is not between the ideas, but between the impulses. And many such take place without revealing to consciousness the ideas with which they are associated. We even experience lively vacillation in regard to conduct which no reasoning, i. e., no ideas consciously therewith associated, seems to have any power to settle. We do not know which course to pursue and simply await the issue of the conflict. It is in prolonged struggles of this kind that we become conscious of many ideas associated with each impulse concerned. It is much as if either side tried to draw to its assistance every notion that experience furnished, yet, when all is done, one of the impulses prevails, in spite of the plausible array of ideas opposing its own ideas of which we are conscious. Indeed the sudden advent of a new impulse may cut the gordian knot of the conflicting impulses and decide our action, without awakening the ghost of an idea. We stand like the spectators of a combat between two nearly submerged monsters of the deep, seeing from time to time exposed to view a fin, a tail, a head, a back, a side, a belly, but never an organ or part whose condition of wholeness or hurt might give some indication of how the fight is progressing.

Where we are conscious of a struggle of contending impulses, we seldom know what particular stimuli called them into action, even though we recognize them as familiar elements in our personality, unless we can refer them, or one or more of them, to the influence of some object or idea of which we have presently become aware. And we never feel sure, after a decision of one of our mental conflicts, that it is due to the impulse whose associated ideas are most vivid in our consciousness at that moment. We know that any decision would draw to itself its kindred notions, i. e., clothe itself in becoming considerations. We also know that we are often conscious of an effort to obscure the real impulse that led to the decision, by filling the thoughts with other considerations that seem plausible reasons for it. And we are fully aware that this effort

obeys an impulse from below consciousness, quite involuntary, in fact. "Consciousness," says James, "is at all times primarily a selecting agency. Whether we take it in the lowest sphere of sense or in the highest of intellection, we find it always doing one thing, choosing one out of several of the materials so presented to its notice, emphasizing and accentuating that and suppressing as far as possible all the rest."

For this phraseology I venture to substitute the following, as more accurately descriptive of what takes place.

There is within us at all times a selective power. Whether the matter to be dealt with is in the lowest sphere of sense or in the highest of intellection, we find this power or regulator doing one thing, choosing one out of several or more materials so presented to its notice, etc.

In short, "the activity of consciousness" is an illusion, or a duplication in expression of the single fact that we are conscious of activity.

We can trace something similar to this consciousness in the lower animals, and must regard them as probably conscious of some part of the intelligent action which goes on in their organisms, though language is lacking them to express their state of mind.

Indeed is not this intelligent action precisely what James had in mind in the passage last quoted, under the name of *consciousness*? Is it not "intelligence" that is always doing one thing, etc., and only gradually developing *consciousness*, i. e., awareness of the activities going on in the neural substance?

Animals show character, personality, habits, good and bad, and are susceptible of being trained. They dream, they have their likes and dislikes, of persons or of other animals, even of their own kind, their affections and their griefs.

Most of us, on reflection, are conscious in regard to our recent activities that they were quite free from any consciousness of ourselves. They went on automatically or with moderate attention to surrounding circumstances, attention of which we were unconscious. Indeed, we often carry on simultaneously, two or more lines of activity, like walking and talking, and may pay so little attention to either as to remember even immediately afterwards very little concerning it. Yet each had been efficiently directed by our organism. No problem, however intricate, no mental creation, of music, of literature or of other construction, however elaborate, but has depended substantially as James, in effect, declares, upon unconscious

cerebral action. Our consciousness furnishes neither guidance nor material for this action, but is simply awareness of its results, and, to a limited extent of the interplay of the impulses from which they spring.

One of James's arguments for the efficacy of consciousness is based on a conception of the brain as an organ of highly uncertain equilibrium, likely to function at haphazard upon the slightest impulse, a "hair-trigger organization," from which one cannot "reasonably expect any certain pursuance of useful lines of reaction, such as the few and fatally determined performances of the lower centers constitute [sic] within their narrow sphere." And, "The performances of a high brain are like dice thrown forever on a table. Unless they are loaded, what chance is there that the highest number will turn up oftener than the lowest?"

And he asks whether conscience can *load the dice*, that is bring pressure to bear in favor of the most permanent interests of the brain's owner. He says that is what consciousness *seems* to do. He is undoubtedly right when he says, "Consciousness is only intense when nerve-processes are hesitant. Where indecision is great—consciousness is agonizingly intense."

But speaking, as always in this paper, for myself, these times of intense consciousness are times when not only am I not conscious of any power to decide, but am conscious that I am at the mercy of the forces that are deciding, or trying, to decide, and am awaiting their decision. Besides, it is very evident that the brain decides, and rightly decides, many matters that surely do not come within the narrow sphere of the lower centers, since they require more than mere reflex action to the customary stimuli, yet it does not trouble consciousness with such matters. Which means merely that numerous actions that have to be learned end by becoming automatic, so to speak, even though requiring intellectual guidance, e. g., speaking, writing, reading. In such activities we are usually quite unconscious of the directive efforts that secure appropriate performance and only infer them from the results. Our desires seem directly realized without more conscious effort than in walking. Consciousness of effort is not the same as effort of consciousness, as Mr. James would argue it is.

Mr. James finds a guiding function in consciousness in cases where the functions of missing parts of the brain are taken up by the parts that remain.

But if differentiation of function in fundamentally identical tissues, in obedience to the demands of the organism be the law of its development, there seems to be no difficulty in supposing this law to be manifested in the part of the brain that survives the injury. This would require no different control or direction from that under which the organism originally acquired its powers, and Mr. James does not assert that this was by means of consciousness.

Let us examine some of the manifestations of consciousness. When we undertake to learn any set of movements, like those of a dance, of the fingers in playing on a musical instrument, or of the organs of speech for pronouncing a foreign language. we are conscious of efforts to bring about certain definite results. In most cases we do not succeed in our first attempt. We proceed by successive trials, and these are conducted by a process of which we are but imperfectly conscious. A striking example of this process is afforded by learning to ride on a bicycle, which is quite comparable to the efforts of a child in learning to stand and to walk. We simply keep trying, that is, we persist in offering to our subconscious selves the opportunity to adjust our muscles so as to maintain the balance of our bodies and of the wheel. How this is accomplished is forever secured from discovery, since it never emerges into consciousness. When practice has enabled us to ride with ease, we have so far lost consciousness of even the tentative movements that accompanied our learning, that we could not, if we would, reproduce them. They have been lost beyond possibility of conscious recall, merged in the completed fashion of movement. So, we may presume, were developed the necessary movements of the earliest living organisms, by efforts to maintain their existence, and in like manner these once become habitual, the steps by which they were formed lapsed into oblivion. Hence we are normally unconscious of the processes concerned in the digestion of our food, of our respiration, of the circulation of our blood, etc. When we do become conscious of such operations, we know that we are victims of some malady or at least of some disturbance of our ordinary balance of bodily functions. Thus pain or discomfort becomes a warning of trouble that must be met by appropriate action.

But let us take a case in which consciousness is extremely alive, and which, according to James's idea, as expressed in several of the above quotations, ought to exhibit the guidance and selective emphasis of that "organ," so desirable for the accomplishment of the purpose in hand. Take an intricate problem in mathematics. What

emphasis or guidance are we conscious of being able consciously to give or are we conscious of giving? We are aware of holding the attention to certain regions of knowledge within which we suppose the elements will be found that should lead to the solution. Beyond this, we may be conscious of strong efforts to evolve the desired result, but of no details of the activity aroused.

The study of consciousness seems to call for a consideration not of the kinds of idea that may figure in it, for we know of none that is not capable of sometimes being there present, except those concerned with purely physical functions, but rather of the circumstances under which ideas in general are extruded, as it were, from the unconscious into our awareness. Under an external stimulus, we may be induced to perform actions when the stimulus is too weak to attract our attention. And these actions may themselves fail to divert our attention from the subject of our thought. A familiar instance of this is our avoidance, while walking in deep reflection, of small obstacles or unclean footing in our pathway. On a more extensive scale, the same relation of cause and effect may be seen in the movements of a somnambulist. But at its extreme development, *this* sort of consciousness may indicate that the organism has emphasized a set of impulses and ideas so different from those usually in control as to constitute a new personality unknown to the normal self. There may be several such personalities successively manifested, in the same individual, more or less unknown to each other, but totally unknown to the normal self.

The late William Morris, in his *News from Nowhere*, has not belied psychological truth, in making his tale an example of a dream so vivid that the dreamer seems to himself to be awake but in a different world from that in which his life has been passed.

I myself have experienced, in brief form, this sort of dream, accompanied by a skeptical opinion of its reality. Some mystics have maintained that our ordinary life is but a dream, from which, at death, we shall awake in the real world.

I would suggest a rude scale of degrees of awareness, placing at the bottom awareness of conditions of the environment and their relation to the prime needs of the organism, whose intelligence develops by "trial and error," the capacity to utilize these for its purposes. Next above this degree would come that in which the organism is capable of valuating alternatives and choosing the one best suited to its interests. Here, perhaps, may be placed the beginning of struggles between impulses, which awaken consciousness.

But Mr. James adduces *pleasures*, which are normal to most beneficial experiences, and *displeasures* or *pains*, which are concomitants of most detrimental influences, as showing the causal efficacy of consciousness. It is true he says that Spencer and others have suggested that this is due to natural selection, since that would weed out organisms that enjoyed fundamentally noxious experiences. "But," says James, "if pleasures and pains have no efficacy, one does not see (without some such *a priori* rational harmony as would be scouted by the 'scientific' champions of the automaton theory) why the most noxious acts, such as burning, might not give thrills of delight, and the most necessary ones, such as breathing, cause agony."

The reply is that pleasures and pains of which we are conscious are only extreme degrees of sensations of the organism which, usually without our consciousness of them, do guide it in its conduct toward its environment. And so far from their being sole determinants of that conduct, we are often aware of other impulses so strong as to decide to action the reverse of pleasant or even quite painful, though perhaps not disturbing vital processes.

Let me go back to one of the passages from James quoted near the beginning of this paper, the one where he contrasts "brain action" and "conscious action." How does he contrive to separate the latter from the former, with a view to this contrasting? How can there be conscious action, or better, consciousness of action, that is not brain action?

But how about free will? Are we not conscious of a force by which we exercise choice, by which we resist temptation, by which we maintain courses of conduct? Surely we choose, resist, persist. Consciousness does not deceive us. No, consciousness does not deceive us. We do choose, resist, persist. But the *we* that does so is far more than what we are conscious of. It is common experience that we wonder how we came to act thus or thus. Which is simply another expression of the fact that the process that brought about the action has not emerged into our consciousness. But going back as far as we can in any case of willing, we are unable to arrive at the cause why at the particular instant when we became conscious of it we exercised that power or why we became conscious of the exercise. It has become so habitual to us that we accept it as the ultimate fact. But the least examination would show us that there is always something behind it, lost in our subconsciousness. We even find ourselves speculating upon it, as if another person had acted, as

in fact is the case—i. e., another than the person of whom we are for the moment conscious. And this fact constitutes the reason why the speculating itself goes on, the section of brain activity to which it belongs not having become cognizant of that which produced or prompted the act of which we were conscious. That act was in fact due to “cerebral motions of which in themselves we are entirely without knowledge”—James, as above quoted.

It is ancient knowledge that a man may see that a certain course of action is best, yet act deliberately otherwise:

Video meliora proboque,

Deteriora sequor.

Why? He is conscious only of a force too powerful to be overcome by the view of the case of which he is also conscious. A little reflection will give the true explanation. We act in general as habit dictates, so far as, in each case, any habit is available. Any general principle of action that we know asserts itself only so far as habit has involved its employment. Such habits as contravene it must be regarded as having been formed before its applicability was appreciated, or under circumstances that did not strongly call for its exercise; and can be modified, if at all, only by a strong stimulus from without. Such a stimulus may be the presence of some desirable object or of some danger to be avoided. The stimulus may act directly upon the habit or mediately through the ideas that closely underlie it. And the latter is the usual case. We acquire the ways of a particular social group by living with it and by imitating them. We might learn them without acquiring them, and that is often the case. It is plain that *doing* is essential to the establishment in our conduct of any principle of action.

As Socrates said, if anybody wishes to appear to be a good fluteplayer, he must make himself such in fact. A man may be conscious of a wish to do many a thing, but may find that, for undefined reasons, the self that *is* he, does not move in the direction that would satisfy the wish. The impulse not to do so has subconsciously gathered to itself all the reasons that inhibit the contemplated action, and by the same token has inhibited or nullified all notions contravening itself. Hence the impotence of casually awakened wishes. They float into consciousness and dissolve into oblivion, as evanescent as the waves with which a light breeze ruffles the surface of a lake.

Mr. James discusses the possibility of consciousness helping “other” and defective “organs,” and it is quite conceivable that we should *become conscious* of help being rendered to weak organs by

better developed parts of our organism, or, better, of efforts on the part of that organism to marshal its resources for working out its purposes. Such efforts are so much a matter of routine in human actions, that most of them never come into our consciousness. But are these "efforts to marshal," etc? May they not be conceived to be more or less extensive reactions of the cerebral elements according to the character of the present stimuli, i. e., their strength, their more or less direct associations with previous experiences and the circumstances that have limited or extended the development of associations with those experiences? We know very well the extent of such brain activities is in the closest relation to the education or other conditions of life of the individual. But again, the possibilities of such reactions must become multiplied in more than geometric proportion, as the range of experience enlarges, especially if the individual concerned is possessed of what is termed "a lively imagination." The resulting combinations must far exceed the demands of the individual's life, and often, therefore, fail to have any practical relation with his conduct. For that is more strictly controlled by habits formed before many of the principles that might seem proper to control it had found any definite shape in his mind—even subconsciously.

It sums down to *this*, that the soul of which we are conscious is to the elements in our consciousness as Kant's *Ding an sich*, absolute matter or substance, so-called, is to the qualities, such as hardness, shape, color, etc., by which alone we are aware of its existence. *Self* and *matter* are simply forms of speech, abstract nouns, to express collectively the groups of elements constituting the one and the other so far as we are conscious of them.

As, again, James says, *Ibid.*, p. 401, "If the passing thought be the directly verifiable existent which no school has hitherto doubted it to be, then that thought is itself the thinker, and psychology need not look beyond."

But I would have psychology look beyond, that is, look to the far more numerous elements and processes beneath consciousness and the "passing thought," if it would reach the real thinker that *is* the thought. There lies the home of the personality, the domain where it rules, were it attains to such freedom of will as is possible to it, and whence it issues its commands to the bodily functions and activities, as well as to the "stream of thought." There is the secret laboratory of life, of character, of opinion, of all we are for ourselves and for our world.

IMAGELESS BEAUTY

AN INQUIRY INTO THE PROSODY OF MEANINGS

BY HELEN HUSS PARKHURST

SOMETIMES, when exasperated by a moralistic tone in literary criticism, or again when freshly and powerfully wrought upon by sheer color, cadence, shape or sound, one may be goaded to the pronouncement that the beauty of true art resides in its sensuous appeal alone. In such mood one is ready to argue that a masterpiece does not gain but rather loses by wealth of suggestiveness and derived significance; that its essence is an immediate seduction of the eye or the ear undistracted by the devious operations of the mind; in a word, that the more purified of articulate meaning it becomes the higher it must rank esthetically. In corroboration of this extreme view one may instance patterns of rare beauty which represent nothing, teach nothing; and the many triumphs of design or color whose meanings are first and last formal meanings—abstract values of line and tone and mass. Still more of a corroboration is music, in its immediacy, its disregard of the natural world, its magic of directly communicated tone and harmony and rhythm. Only in literature do we seem to encounter the first serious obstacles to the theory. Before the paradox that non-sense verses at their most perfect ought to be more than a match for all other forms of poetry we are brought to a halt. To the irrationality of one's completely pagan moments even this paradox might appear defensible, but in cooler mood there is no other way than to reconsider one's original contention regarding the esthetic irrelevance of ideas.

At most times, certainly, it is perfectly clear that the creation of the sculptor is something more than abstract patterns cut in a solid substance, the creation of the painter more than colored arabesques, and the creation of the poet far and away more than the contrivance of melodious sound. Everywhere the visible and the audible em-

bodies meanings transcending the particular throb and pulse of the moment. And yet in no case is the expressed meaning clearly independent of the manner of its expression. In a great poem the language is not entirely one thing and the thought entirely another. The thought would not be precisely the same thought were it otherwise clothed; and the music of the verse would be altered if other meanings were grafted upon it.

But if a great work of art is a fusion of form and meaning—a fusion so perfect that complete isolation of the two elements is impossible,—it still does not follow that the study of them as in some sense independent variables is precluded. That at least the form may be treated of independently of its ideational content there is nobody who denies. We find no lack of works devoted to the manipulation of color, of line, of rhyme and rhythm, of balance, symmetry and the rest,—all without reference to subject-matter. If there can be a technique of form, why not of ideas? May there not indeed already exist a *prosody of meanings*, neglected in theory but rigidly adhered to in practice—a set of principles for the choice and combination of ideas, principles as definite and severe as are the principles of dramatic form, of visual design or of musical harmony?

The immediate denial of such a possibility may appear to lie in the lack of distinctiveness of the subject-matter of art. There appears to be no sort of theme over which the artist possesses a monopoly, and nothing in life or out of it which he may not legitimately appropriate. Starlight and nightingales, madness and love and death enter as properly into the formulae of statistics as into the substance of an elegy. And matters as mundane as poverty, as unlovely as vice, as simple and common as drought and harvest and human toil belong no less to dramatist and painter than to sociologist and economist. The catholicity and democracy of beauty renders abortive any attempt to get at its essence by any process of exclusion.

Nor does a more formalistic inquiry in terms of the concept of organicity promise better success. Though it is certainly true that a work of art is composed of parts whose meaning largely lies in their relation to the meaning of the whole, the same is equally true of everything possessed of any kind of unity—of living creatures and manufactured machines and logical dissertations no less than of a statue or a symphony or a lyric. Moreover, only a desperate straining of the notion of organicity could force it to account for the beauty of parts in their character of independent units—the quite intrinsic loveliness of the single epithet or metaphor which is

the product of no extraneous relation to the larger whole. It well may be that organic unity wherever manifest is the source of esthetic significance. But in that case what we wish to investigate is not the elements of beauty common to beasts and planets and sonnets and mathematical demonstrations by virtue of a mutual dependence in them all of part and whole. We must return to our starting point and seek in some other direction for an answer to our question as to the composition of that imageless beauty—beauty of meaning or idea—which is the inalienable and peculiar attribute of the work of the creative imagination. If neither subject matter as such nor that interdependence of part and whole which we call organicity appears to promise the distinction we are in search of, is it perhaps by some unusual juxtaposition of the ideas it expresses a kind of invisible design—that art differs from all else? Let us approach this possibility by way of a brief consideration of the nature of scientific thought on the one hand, and on the other, the nature of the raw materials of life.

Formal logic teaches that all propositions, regardless of subject matter, fall into two groups: that they are reducible either to statements of the inclusion of classes—assertions of relation; or to statements of the exclusion of classes—denial of relation. Now it is plain that these two types, or positive and negative propositions, are of many degrees, the positive ranging all the way from statements as to the coincidence of single attributes to affirmations of complete identity; the negative, from separations based on a single difference to absolute antitheses. The preponderance of men's ordinary observations is of course in the way of something short of either extreme. One may even question whether the conditions for an assertion of total coincidence of qualities is ever given in nature; and whether cases of genuine antithesis are ever encountered. For whereas the world exhibits a variety and richness that is adverse to the discovery of repetitions; it is no less maladapted to the delimiting of sharply defined opposites. Nature, as we get it in our warm living human experience, appears to be a thing of subtle modulations, continuously different from part to part and yet wrought of interpenetrations. Day passes into night, youth into maturity, sound into silence, through a series of indistinguishable stages. Nowhere, unless it be in works of abstract metaphysics or in such cold storage versions of reality as we sometimes get through science, do we meet with unconditional identifications, or unambiguous and violent contrastings.

In philosophy, in science, in all places where schematic representations are acceptable substitutes for the multitudinous world of concrete experience, these unconditional identifications and violent contrastings are unquestionably to be met with. That, precisely for those to whom the variegated things of sense are more significant than their unearthly schemata, and more real is the ground for quarrel with the rationalizer. To such persons, the realm of the vital and conscious is to the regions where hard antitheses and unqualified generalizations obtain as the earth with its suffused light,—brightness passing always by gradual degrees into shadow—is to cold lunar places where to move out of sunshine is to plunge without transition into profundities of blackness. The moon is dead, and all things like the moon which fail to show blendings of opposites, minglings of dark and light, are dead likewise and alien to the nature of what is human. The universalizings of the logician, the uncompromising distinctions of the physical scientist, are alike inadequate to life which manifests everywhere variety within unity and unity within variety.

Those who argue thus against the somewhat rigid and often unimaginative operations of the lover of abstractions, will turn with relief to the labors of the artist. There, they declare, is to be found what they crave: an amplitude of vision which somehow, without dissociating them, renders things still more rich and individualized than they are in nature.

Turning then to the arts in the expectation of discovering in them a total abstaining from the practices that devitalize speculative thought, we are frankly startled to find at the very first encounter that instead of less extravagance with the violently antithetical we have here actually more. Not merely is the artist preoccupied with what is individual, not only does he dwell upon the variousness of things, but he flies to the extreme of insisting upon maximum oppositeness. The impression conveyed is that if it is the rationalizing intellect that originates concepts and forges antitheses, it is the artistic imagination that revels in them. What science of matter ever dwelt upon the antithesis of support and burden with the ingenuity and elaboration with which it is treated graphically in the masterpieces of architecture? What theory of mechanics ever set forth the antithetical notions of heavy and light, upward and downward, balance and unbalance with the insistence with which it is set forth in a statue, or a painting? What writer of sociological treatises ever exploited the opposition of youth and age, poverty and

riches, greatness and obscurity, success and defeat, as have the composers of the great comedies and tragedies of the world's literature? What mere theorist whatsoever in the entire history of abstract thought ever contrived to ring the changes that the poets have rung upon the contrast of bitter and sweet, visible and invisible, dawn and evening, life and death, sleep and waking? In the course of their lucubrations the masters of speculation have plotted bold demarcations and set up impassable barriers, but by some strange freak of fancy it is the great imaginers who have fully appropriated the vivid and irreconcilable oppositions to make of them the very body and substance of their art.

From one point of view such an outcome was most emphatically to have been anticipated—and this in spite of the queer alliance between the artist and the theorizer which thereby results. The first law of sensory form in art is the law of rhythm; and because of the closeness of fusion of form and meaning we might suppose that laws of the one would prove to be also laws of the other. But if the principle of rhythm is the first principle of aesthetic meanings, what could the artist look to for its completer realization than to antitheses? Such pairs of notions as rest and motion, bounded and boundless, dawn and evening, living and lifeless, speech and silence, constitute a true rhythmic unit, causing a pendulum swing of thought in wide sweeping alternations. Indeed, it was not astonishing, but quite to be anticipated, that out of the riches of ideas—all of them free to his choice—it was groupings of incompatibles, of notions violently disrupted, fraught with conflict, that the poet or the painter would seize upon.

But if on the one hand life is never a thing of sharply silhouetted contrasts, never a matter of logical antitheses; and if on the other hand art no less than abstract thought and all the sciences which are its product feeds upon radical distinctions and divisions, how reconcile life and art in the first place; and how in the second place distinguish art and logic?

When the abstract thinker disjoins two things he treats them as completely diverse, even though the ground for the disjunction is an unimportant and contingent unlikeness. Similarly, when he, perhaps at the next moment, conjoins them, it is with the finality of an indissoluble union. Relations of similarity and difference between things are thus atomized; no aroma of one kind of relation leaks out to qualify the other, no tingeings, no blendings, no alternating reberations occur. A cinematographic version of relations

of likeness and unlikeness is what we are given, though in the actual objects of the world these are simultaneously present, inextricably tangled together. Now though we find that art and abstract thought make common use of this principle of contrast, it still remains true that the one is alien to life, the other closely approximates to it. In other words, whatever may be the raw stuff in the way of contrasted ideas that the artist works with, the outcome of his labor is by no means a patchwork of juxtaposed concepts, but in some strange way a reinstatement of the fulness and continuity of living experience. Within the rich texture of the finished product we find no blurring of the antitheses originally chosen. What we do find, however, superimposed upon the contrasts, are their intricate combinations and interpenetrations. Filtered through the deeper understanding of the artist, as filtered through his more delicately responsive senses of sight and touch and hearing, not only has the variety within the unity of the world—its individualities and uniquenesses—been enhanced; but also its unity within variety. Instead of a cinematographic version of the alternating pain and pleasure, truth and error, strength and weakness, dream and reality, which make up the content of experience, the artist contrives to reveal the simultaneous and mutually reinforcing reality of aspects of the one kind amid aspects of the other. It is this sensitive blending of opposites along with their disjoining that gives to the artist's treatment of them an extreme dissimilarity from the treatment by the logician, and also a startling adequacy to the content of immediate experience.

There is a dynamic quality and a cumulative significance injected into both terms of an antithesis when their reciprocal interactions are accentuated. The conflict between youth and age, nobility and baseness, fidelity and infidelity, illusion and disillusion, would lack a large degree of its power and pathos—quite apart from its verisimilitude—did the artist not succeed in so vivifying the opposed concepts as to reveal the reflections and anticipations of each in the other. Youth and age are antagonistic, but there are retrospective relics of youth in antiquity, and confused foreshadowings of age even in youth. Nobility and baseness, fidelity and infidelity are alien, but only in the bodiless abstractions of the philosopher are they merely alien. In the behavior of man, in the creations of the dramatist, pitifully and grandly each has roots in the other, each sends out a stream of influence providing a continuous pathway through diminishing degrees of itself into its irreconcilable opposite.

A denial of antithesis in the very midst of an insistence upon it, the asseveration of difference in the same breath with pronouncement of unimpeachable union—by such devices does the artist contrive to fashion a world more real than the real world itself.

In the spacial and temporal arts alike it is first of all the meaning of the work as a whole which is to be accounted for in terms of the double process we have been considering. Take any great animal carving, a superb tiger, or a horse or an eagle. What are the antithetical ideas which are at once opposed and reconciled? Well, for one thing very probably the contrasted concepts of brute and human. There was a bronze peacock produced not long ago which very certainly incorporated this particular antithesis: a slight enlargement on the head very subtly suggesting the golden crown of a human monarch. Irony was there, and pathos, too. The mere animal exalted by its assimilation to far-off kingship, that kingship in turn reduced to vanity by the reciprocal action of the implied analogy. Again, in probably every convincing tiger cut in stone there is contained both power and powerlessness, both an almost unearthly potential swiftness and a thwarting by the ponderousness of the solid substance of which after all it is composed. Is it objected that to the discerning eye and mind the living model likewise, and not merely its counterfeit presentment, must have contained the same opposed and reconciled contradictions? So be it. Not to be diverted into an entirely irrelevant issue, let us for the time agree with Croce and affirm that to the extent that any consciousness contains even momentarily an apprehension of which the completed statue is a reproduction there is a work of art. Our concern is with the nature of the creative apprehension, whether incarnated in stone or departing like a dream in the night. The point is that antitheses are sharply envisaged and at the same time welded in an indissoluble synthesis. It is as if the artist played fast and loose first with life and then with logic. As though he meant to go all the way with the abstractionist as against immediate experience, he rips from their context the most extreme of antithetical concepts, only by some wizardry to make them come alive again—the abstractionist being in the meantime left in the lurch in his turn.

Take another instance of the total meaning of a work of art. There is nothing which better bears out the foregoing contentions than the case of portraits. The outstanding peculiarity of any notable portrait is that it conveys at one and the same time the essence of humanity as such and the highly specialized nature of the chosen

subject. Universal and particular ; abstract and concrete ; the neither man nor woman, young nor old, rich nor poor, and over against that a person most carefully dated and placed, with individualized nature, particular temperament, social status, and inalienable visible aspect. No great portrait but presents this paradox, sets up this rhythmic alternation of attention to the many and the one, the humanity which is set over against the single member of it, and that member as in the last analysis typifying humanity. This is of course to make no guess as to the means by which the artist accomplishes the trick. Some process of selection it must be, a combined elimination, exaggeration, subordination, but that is to explain it not at all. Enough that for the spectator the single set of lineaments, grave or gay, haughty or humble, ugly or beautiful, which is the outward guise of this one personality sets the imagination ranging to all other personalities, all other fates, all the tragedy and comedy which the life of man contains. The one face the symbol of all humanity ; then the symbol of all manhood or all womanhood as the case may be ; then of poverty as against riches ; of guilelessness as against the treachery of the world. The whole epitome of life is there, even while expression, attitude, mood has been particularized to the point of being a selection of a transient event that never before happened and will not be repeated throughout all eternity.

But it is not merely of the ideas of larger range forming the basis of the work of art as a whole that the double principle we have been discussing obtains. In the arts of time, at least, the alternating disjoinings and conjoinings, departures and approaches, of contrasted notions may be carried out even to the detail of a metaphor or an epithet. What is it indeed for a phrase or a name to be imaginative but to contain within it room for the antipodal swing of thought, delicately brushing its wings against things widely sundered only to unite into a single image their unacquainted reflections? Wheel within wheel, minor situations in a drama no less than the major, secondary themes no less than the main theme, may be shown to depend upon the same principle. Once more we venture no pronouncement as to how the thing is done. All we can do is to note that just as branch and twig and leaf copy the contour of the whole tree, so the invisible pattern of meanings comprehended by a work of art is re-echoed throughout even to the uttermost detail.

We have seen how the law of rhythm operates in a work of art for the control both of sensory form and ideational content, and how antithesis furnishes to thought the analogue of visual sym-

metry, audible rhythm, rhyme and the rest. But there is a second law of scarcely less significance than the first for the achievement of finished perfection—the law of the unrhythmic.

Rhythm and the unrhythmic: through the one allied with all cyclic phenomena, rendered law-abiding, orderly; through the other differentiated from everything that is mechanical, made free and freshly creative like life itself—such is the spectacle that melodious verse or the exquisitely balanced design of a pictured landscape, or the structure of a cathedral or a symphony presents. In the temporal arts, blended symmetry and a-symmetry of formal structure—masses, curves, colors, figures, echoing and re-echoing but generating always new and unanticipated departures from the norm of the invariable; in the temporal arts, the regular qualified everywhere by the irregular—variation of beat, of interval, of rhyme, of harmony, breaking constantly in upon uniformities, and creating an ascending hierarchy of modulations. Order and disorder, the predictable and the unpredictable, to this does art, so far as sensory form is concerned, reduce. What refinements then of this same element of lawlessness qualifying the rhythm of antithesis may we look for among ideas?

In their handling by the artist those antitheses are modified, as we have seen, such modification amounting to a kind of irregularity by reason of the constant checking of the process of direct antithesis. But more properly it may perhaps be called a super-rhythm producing a sequence of pulses of constantly diminishing amplitude, thus forming a spiral path for the movement of the mind through an ascending series of relations. It has become clear how important this hierarchy of super-rhythms is for the creation of that continuity and many-dimensional character which is missed by logic and is characteristic of life. But even a many-dimensional rhythm retains certain undesirable features of the artificial and the ready-made. If the ideas communicated by art were formed of such stuff only it would seem as if they could quite easily be counterfeited by a logical machine or sufficient complexity. There is, however, in the ideational content of art another and more genuine unrhythmic, present in a degree varying with the classical or romantic proclivities of the artist—an element of wildness which is the true counterpart of the a-symmetries, the inversions, the discords and the imperfect rhymes.

Antithesis as employed in art—vivid and abrupt though it be—is seldom if ever between the directly antithetical. It is ever, so to

speak, a red faintly tinged with yellow that is contrasted with green. In some measure this kind of a-symmetry might seem to be an unavoidable consequence of the circumstance that contrasts, howsoever clean-cut and logically perfect, would always, insofar as they were given concrete realization, be imbedded in material which in some respects at least failed to yield yet further contrasts. Youth and age even of the extremest degrees would, as incorporated in particular personages acquire a certain a-symmetry by reason of additional details of each which found no antithetical echo in the other—not even a slightly distorted echo. Yet, despite the solidity of greatly conceived characters, and the substantial texture of finely imagined cause and effect sequences, there is far less of concrete filling introduced into art sheerly for the sake of concreteness than might be anticipated. Twinges of aesthetic conscience would act as a brake to the accumulation of details which did not somehow directly contribute formally aesthetic value—in other words, supply a definite rhythm of meaning or definite departure therefrom. The distinctive matter about art is that it is never haphazard, never constrained by necessities or limitations which it does not consciously accept, and then exploit, and so make a virtue of. There are no subsidiary details which, devoid of rhythmic value, function merely accidentally and unintentionally to blur sharp conflicts, deaden overtones, and introduce generally that muddying effect which the irrelevancies of actual life contribute. Whatever departures from regular rhythms the artist indulges in he indulges in deliberately—even though not perhaps as a result of any rigid process of intellectual reasoning.

The wildness then—that unpredictable element of variation by which the breath of life is breathed into the stark logical figures of mere antithesis—might be expected to break out into new rhythms at a higher level like more faintly sounding overtones, these in turn to be modified by still further irregularities and the whole process to be repeated. This indeed is precisely what occurs. Between the increments of variation which serve to rescue an otherwise dead antithesis, there each time flowers a new, less immediate relation of opposition, which in turn must be saved by a still further increment of the unexpected, and so on forever. It is thus truly an unending process, subtly intertwined with that other process constituting the super-rhythmic, which is initiated by the artist. Its unendingness is what makes the irreducible qualitative difference between all art and the static schemata of logic. Its unendingness

is what assures to the questing imagination a never-to-be completed pathway to travel upon.

And now finally it is time to consider how the many rhythms of contrast yielded by the processes of the natural world and by human experience are subordinate to another single antithesis of more constant and universal import upon which those lesser alternations rest like flutings upon an arch, rhythmic within larger symmetries; or like ripples of sound that stir the ampler swell of a great cadence. In the midst of the rapture of all that is beautiful there is an element of sadness which makes the deep experience of any supreme art something akin to tears. It is as if art had as its unchanging theme a heart-breaking finitude and transiency, even if perhaps always projected upon a shadowy background of the infinite. Or better, as if it were forever groping after the imperishable and flawless but tainted with the canker of death and imperfection. Certain it is that a breath from the world of disillusion seems to chill the warmth of even the most triumphant beauty, shriveling its petals a little as with a blight. Does the fault lie with us who come to art with spirits that soon soon falter and drop back to the mists and doubts of mundane existence? Or is it rather that the blemish of mortality lies at the heart of beauty itself, as it seems to do? Is the song of death always really there, its grim melody undrowned out by the crashing chords of life? Does the dim image of defeat, the premonition of broken hopes really darken the landscape which should hold nothing but sunshine and flowers?

To meet any such question there is one fact that should be taken account of. The art we are concerned with is human art, conformed to human needs, cognizant of human idiosyncracies, subject to human limitations. Whatever the art of an angel might do, the art of man can not transcend altogether the conditions of his earthly sojourning. It cannot, and perhaps it would not. No healthy person, it has been said, can dwell in thought upon his own dissolution. But dissolution is after all his ultimate destiny; and since the omens of it beset his daily path it is only to be expected that even if he successfully excludes it from his waking thoughts, apprehensions of it should arise in dreams of sleep and in those other dreams which he calls art. Even in man's living experience as it passes, it is the constant presence of an incompletely envisaged limitation—of his precarious hold upon life and the necessary frustration of all ultimate strivings, that gives to his dream their mood of cosmic grandeur, to his loves and passions, encompassed by partings and

the threat of partings, their sharp beauty and pathos. What is utterly secure beyond chance of doubting, what carries the promise of continuance without possibility of end, is, because undiscoverable, in a degree unmeaningful, and so deprived of full emotional significance. The human artist, bound by inexorable necessities, draws profit from the very bonds that hold him. He chooses as the underlying rhythm of all his creation the supreme antithesis of deathlessness and death.

A race of beings subject to no fear of terminations, undying and never weary nor defeated, would fashion an art on different laws, with its content and its entire intention different. It might be good to be such a being, and attain to a large leisurely bliss unmenaced by disaster. But so long as we retain our humanhood it is likely that the rhythm of our emotions will remain as it is, and that we shall alternately sip from the cup of fear and hope, of misery and gladness. So long at least as we do, the things which will yield most genuine and profound delight will be those things in which are united intimations of felicity and of regret. It will be the frail things, the tender things, the vanishing things, which will elicit the keenest throb of appreciation and wonder: delicate flowers, cloud shadows, the beatific illusions of young love, the thrill before the dawn. What confers upon all such fragile and precious elements of the world their almost unearthly beauty is the antithesis and at the same time the miraculous blending of the real and the ideal, the must be and the might have been. But elsewhere than among the characteristic and limited themes of the lyric poet the same echoes of finitude may be heard. Indeed, there is no subject ever chosen by the artist which fails to start those echoes—which fails to set up the antiphonal chant of death and deathlessness with its ceaselessly ascending spirals of rhythmic and a-rhythmic modulations. For however picturesque or interesting or important the multitudinous other contrasts which the artist discovers for this art, this is the only contrast that is inescapable. It is the only one which can set its seal equally upon the solemn and the joyous, thrust itself alike into mourning and festivity, and find a place as well in the midst of the trivial as of the momentous. For the one fact common to the lot of all men, transcending the differences of wealth and poverty, blessedness and despair, is the fact of the merciless shadow of life's awful brevity, the fated frustration of its godlike dreams, and its goal in oblivion.

PERSONALITY AND EVOLUTION

BY G. C. NEWTON

PERSONALITY

WHILST the doctrine of evolution, as applying in an optimistic sense to all things and events within the Universe, can hardly be said to have been quite definitely established it must be admitted that the heavy balance of scientific opinion is in its favor. Such application will, throughout this essay, be assumed, and especially will this be so with reference to the world of life and growth. Evolution, therefore, will be regarded as a process within which real qualitative differences arise, and of which the tendency is to produce results that are qualitatively higher than are their apparent starting-points.

Having said this much, it seems natural to attempt to make clear what should be understood by "personality." Such an attempt is attended by grave difficulties. In a world of which, in spite of all our boasted advances, we really know extremely little, some things have still to be accepted rather than explained. Among such, psychical individuality, which comes in the experience which we call personality to so sharp a focus, is an outstanding example. This much we can afford to admit, whilst at the same time denying that we are quite without any significant knowledge bearing in this direction.

To describe personality in terms purely physical or mental, is a patent impossibility. A person may be pre-eminently mind; but the fact still remains that he is body as well. Nor do we know that under any conditions he could be mind alone. So far as our knowledge serves us, the body which is organic to mind is indispensable, alike to the growth of that mind, and to its mature functioning. We know of no exceptions. Even granting the existence of Divine, which is perhaps Universal, Mind, the entire material universe may

well be organic to it. Keeping such reflections as these steadily in view, we need not fear to assert that the mind of personality is of greater significance than is its body. The seed, the blade, the ear are alike necessary; but it is the full corn in the ear for which we crave, and it is for this that the soil is tilled and the seed sown.

It might be thought a short-cut to take mind as being equivalent to awareness or consciousness. To do so, however, would be to describe the mind of personality in beggarly inadequate terms. How far down in the scale of existence awareness is to be found is debatable: if we take into liberal account all instances of organic response to the stimuli of the environment, we shall indeed have to go very far. Again, the personal mind is characterized not only by consciousness but also by inferential conditions, some dynamic, others relatively static, which are usually referred to what we call, for want of a better term, subconsciousness. But yet again, the human mind is almost certainly not alone with respect to the possession of such structures and processes. It is in the consciousness which is also self-consciousness that the mind of personality may be said to come into its own—in the consciousness which implies distinctions, syntheses, and the emergence of values. A person can say "I," "Thou," and "We"; perchance he can also say "God," thus evidencing his conception of a vaster and a more enduring unity than can be expressed in terms of any society of himself and his fellows. And the more he realizes the meaning of the first three (at least) of these terms and shapes his life accordingly, the more must we hold that he is a person.

It was Boethius who defined a person as "the individual subsistence of a rational nature." In his Gifford lectures on *God and Personality*, Mr. C. C. J. Webb, commenting on this definition, states that he regards it "as the best, taking it all in all, that we have." To assert, however, that mere rationality differentiates personal existence from other individual existences is to plunge blindly into error. That not all animal reactions can safely be labelled instinctive—that it is indeed the height of rashness to draw hard and fast lines of demarcation in this connection—is evidenced by the fact that, as Dr. Rivers so emphatically puts it, "the behavior of animals, even such animals as the insects, which are regarded as pre-eminent patterns of the instinctive, shows many features, such as adaptability to unusual conditions, which can only be explained by qualities of the same order as those belonging to intelligence."¹ It is, however, in

¹ *Instinct and the Unconscious*, p. 40.

the life of man that reason may be said not merely to work but to make its bid for supremacy of directorship. To put the case briefly, it is because this is so, and still more so because of the level of the intelligence thus manifested, that human individuality is personality.

Viewing the matter thus, that mind at a certain level, associated, as we must never forget, with a certain bodily structure, becomes personality, we now have to ask if this entity is something which exists in its own right. The body assuredly does not do so. It is too dependent, not only on its mind, but on its material environment. Alike for its genesis, its growth, and its sustenance, it is obviously in close necessary relationship with a world of material objects. Nor is the mind in better case: it is dependent upon its own proper body, upon other minds—upon, in fact, a mental and material universe. The recognition of such facts as these renders impossible the holding of any crude doctrine of realism on the one hand or of idealism on the other. Neither as body nor as mind, nor as both taken together in their concrete actuality, can personality stand alone. It has its setting in a world. Thence it draws its inner life, and its sustenance: thence it derives whatever value it may possess.

Hitherto, we have spoken of personality in general terms. When we come, however, to the uniqueness of individuality possessed by any particular person—an aspect which no survey of personality, even so brief as is to present one, can afford to ignore—we are confronted with the mystery of the Cosmos itself. We have every right to be in earnest with the great principle, enunciated by Leibnitz, of the identity of indiscernibles. But why are no two individuals precisely identical? Whence comes this all-marvellous uniqueness? We cannot say. Nevertheless, is it not just here, in the heart of an apparently insoluble mystery, that we must look for at least a portion of personality's value? That friend whom we love—we love none the less because he may chance to possess certain pleasing qualities, but also because he is he. The good, the universal value, in a person, is not something that can be legitimately abstracted from that person's personality. Abstractions, whether of particulars or of universals, move us but little. Concreteness makes an appeal that is irresistible. Truth, beauty, goodness—these may have their eternal reality; yet what are they but for their embodiments? In the individuality of, let us say, a just, or a good, person, the universal makes its appearance, and uniquely so, in the particular. Such appearances challenge our immediate attention and response—as

Felix knew, to his dismay, when in the presence of one who "reasoned of temperance, righteousness, and judgment to come." In some way, within the life of each person, it would seem that the universe itself finds, as it can do within no lower form of existence, an individual, and unique expression. It would seem also to be ultimately to this fact that personality owes its charm, its mystery, and its value.

PERSONALITY AND ITS INHERITANCE

Assuming that the facts which have served as the data for evolutionary theory have the right to be interpreted after an optimistic fashion, it is fairly obvious that any attempt to explain the latter in time in terms of the earlier is bound to result in grotesque failure. To take a simple illustration—does the child explain the man? The former has temporal priority, and, as a relative starting-point, is necessary; but to bring the latter into existence it takes a society of living beings and an environment of natural objects. Nevertheless, we cannot refuse to admit the fact that at however early a stage we take the child, there is something there already. Any attempt to throw light upon what that "something" is, involves the asking of two questions: (1) What does a person owe to an ancestry admittedly "human"? (2) Does he inherit also from non-human existence?

(1) That a person's body is a heritage from generations past and gone, is evidenced by the simple facts that the germ-cell from which it is evolved was formed by the conjugations of the spermatozoon of the male-parent with the ovum of the female and that these interacting cells were themselves derived from other and prior individuals. Thus our primal physical stuff is of racial tissue. Is it, however, mere body that the individual inherits—mere body, possessing, in some inexplicable fashion, the power to urge the individual in certain directions which are connected, in the first instance, with the immediate care of the organism but which ultimately go considerably further?

Along several lines we can argue that the overwhelming weight of evidence is in favor of a negative answer.

Firstly, we can point to the significant fact that the freshly-fertilized germ-cell immediately starts to do the best it can with respect to the situation created by itself plus its environment. It begins a process of subdivision resulting in the production of many millions of cells, each having its own place and function within a single organism which by means of specialized structures and systems of organs can breathe, move, digest, and even think. We can attempt to account for such creation and development by the assumption of some directive power working at a level below what we usually call consciousness, or by that of mechanism pure and simple; and the former assumption appears to risk less than does the latter. After birth, what we may call, without too serious a risk of error, organic consciousness, which, though it does not usually, at all events, enter into the stream of ordinary consciousness, it is reasonable to suppose is not discontinuous with the latter,² sees to it that the organism develops after a manner that has become stabilized by the long working of the evolutionary process which has given to the human body its present structures and functions, and sees to it also that the organism, as a fully developed affair, is, barring accidents and various inroads of disease, maintained at a sufficiently high level of efficiency. Nor can we, it would appear, do otherwise than suppose that it is this same directive and organizing principle that has been operative from the first.

Secondly, with respect to the instincts—these, together with bodily structures and functions, appear to constitute the most strongly-marked features of the individual's ancestral inheritance. That behavior has its root in instinct, appears impossible to deny. "Directly or indirectly," writes Professor McDougall, in his *Social Psychology*, "instincts are the prime-movers of all human activity. . . . Take away these instinctive dispositions with their powerful impulses, and the organism would become incapable of activity of any kind; it would lie inert and motionless like a wonderful clock-work whose mainspring had been removed, or a steam-engine whose fires had been withdrawn. These impulses are the mental forces that maintain and shape all the life of individuals and societies, and in them we are confronted with the central mystery of life, mind, and will." Further, our instincts manifest themselves, one and all, as psycho-physical processes. And by a psycho-physical process we mean that the psychological aspect is relevant and not merely inciden-

² As evidenced by such facts, to go no further, as those relating to "mental healing."

tal to the physical one.³ Moreover, psycho-physical processes would appear to imply psycho-physical dispositions, and suggestions of continuity would certainly seem to point to the hypothesis that such dispositions of double aspect must in some way be attributed to the individual's primal germ-cell. Thus, again, the inference is clear that the germ-cell is not capable of a purely physical explanation.

All biologists may be said to agree upon the thesis that evolution depends upon heredity and variation. That the former factor, understood as implying the handing on of acquired modifications, plays so important a part as was assigned to it by Lamarck and Spencer, the Neo-Darwinian school has made it impossible for us to believe. The broad fact of average individual regression towards average racial qualities, as established by the statistical data of Pearson and Galton, points in a similar direction, and at the same time serves as a corrective to views which would make the conception of progress too individualistic. We are not bound, it is true, to accept the view that acquired modifications are in no sense or degree transmitted; if we do so, we are, indeed, faced with the difficulty of accounting for any evolutionary progress. Neither are we bound to accept variation as being ultimately inexplicable in the sense of being entirely independent of ancestral influences; for in this connection the suggestion of Galton that influences, if such act through several generations, may have a cumulative effect which manifests itself by giving rise to an apparently sudden variation, is, after all, too significant to be laid lightly on one side. The point is that even if we accept, as it seems that we should be wise to do, the main outlines of the teaching of Neo-Darwinism, we are, nevertheless, strictly within our rights in claiming that the primal germ-cell links us not only physically but also mentally with the past. Our heritage is both body and mind. That the latter is of the order of the "subconscious" makes no difference in principle; for the evidence, supplied by both normal and abnormal psychology, to the effect that this is continuous

³ It has been claimed that there are instinctive bodily actions in which relevant mentality (relevant in the sense of playing some part in the process) is absent. But to admit some appreciation of the situation, which is expressed by appropriate bodily action, seems to offer more continuity and to raise fewer difficulties as one deals with a subject which is not too amenable to psychological treatment. Such views as those to which we are referring pushed to their logical conclusions, would lead us to regard instinctive bodily actions as being merely more complicated forms of reflex actions. Yet, even so, it is difficult to see how the psychological side (implying something more than mere awareness of the action itself) is to be altogether ruled out; for in such cases we can regard it as being subconscious rather than conscious.

with "clear" consciousness, is too abundant and weighty to be ignored.

(2) The tide of life is to be regarded, from a thorough-going evolutionist point of view, as being continuous from the amoeba to man, and possibly—though here we are on very uncertain ground—from the inorganic to the organic. As we pause to reflect on the continuity thus suggested, we cannot but realize something of its tremendous significance. We see life in connection with organisms so lowly that it would appear that what is usually termed consciousness cannot by any stretch of the imagination be held to have lot or part; and yet, even here, there appears to be awareness of environment, adaptation, response. Again, as we pass higher up the scale, in the lives of non-human living creatures we are confronted with manifestations which we cannot refrain from calling behavior, although such is for the most part at the level of instinct. With regard to no phase of life-manifestation do we appear to be justified in speaking of absolute unconsciousness, only of degrees of consciousness or of difference of mind-level. It is, however, as we have already suggested, in the life of man that consciousness may be said to come into its own; and on the significance of this fact the enlightened upholder of evolutionary continuity will lay sufficient emphasis to bring him into companionable proximity to the staunchest upholder of the hypothesis of "breaks." When this consciousness appears, it undoubtedly comes on the top of much that has gone before, and from which it has in no real sense severed its connection. How far, however, we are indebted to a possible non-human ancestry, is difficult to say. Certain displays of the subconscious, for example, those associated with telepathy and with dissociations of personality, may conceivably be held to have their origin in instinctive reactions of animal ancestors. The latter phenomena, as Dr. Rivers very significantly suggests,⁴ may link us with individual creatures which had occasion to make repeated and fundamental changes in their environment. Within the limits of this present article, however, we can hardly pursue such speculations at greater length. It is sufficient to say that behind man is a past of life and energy that is incalculable. If, here and there, he is linked to it by fetters, he yet owes it infinitely more than he knows.

That the individual, newly-arrived on the world's stage of thought and action, is equipped with physical material and with certain general and particular tendencies to behavior which are, how-

⁴ *Instinct and the Unconscious*, p. 80.

ever we view the matter, a heritage from his complete ancestry, we have every reason to admit. That the kind of individual he is to be is irrevocably determined by these tendencies, we have, in spite of the pronouncements of extreme adherents of Weismannism, every right to deny. It is, or should be, a well-known fact that instincts may be allowed to develop after an "all-or-none" fashion or may be modified even to the point of practical repression. It is possible, therefore, to accomplish much in the direction of encouraging the instincts to develop after a systematic, orderly fashion, their indulgence being regulated by a system of valuations. This is brought about by the acquisition of sentiments, the abiding feeling-attitudes of the individual with respect to particular objects. It is only thus, indeed, that instincts with their propelling emotions come fully into the movement of our lives. Instincts are hereditary; sentiments are acquired characters. The importance of the formation of the latter cannot be over-rated; and it is our social experience which makes that formation possible. Let us repeat, the education of the sentiments is closely related to the acquisition of valuations. And our valuations make us what we are. They tend to pass from the more subjective order, connected with the immediate needs of the organism, to a more and more objective one. It is even thus, by way of continuous progression, that we come at length to the conception of goods that are intrinsic. In this process, the part played by the environment appears to be enormous. Here, in our world of things and persons, we see in the activities of others the working out of instincts similar to those which we ourselves possess. We see the efforts of men attended by failure and by success; and the lessons implied therein we are able to some extent to learn and to turn to our advantage. We are beckoned here, warned or sternly forbidden there;⁵ we act and are acted upon. It is as we make acquaintance with the customs, institutions and traditions—which may be said to mark the self-consciousness of the race-life—of our social "universe"—as we breathe, in fact, the whole spiritual atmosphere in which our beings are bathed—that we are enabled to become persons as distinct from individuals. It is, therefore, in the environment that we have to seek for that portion of our inheritance which we most highly value—a portion, indeed, which is not lightly entered upon, but which has to be bought with a great price.

⁵ We violate the laws of nature and of morality at our peril. There are, indeed, in respect to each of these, important senses in which violation is impossible.

PERSONALITY AND THE FUTURE

The consciousness that shows itself within personality must mark for us, from one point of view, a climax of mental evolution. But to it we dare not ascribe finality. Organic awareness, and the behavior that is dictated by instinct, with its marvellous power of response, have given pride of place to the controlling power of reason—reason which pursues its hesitating way with errors not a few, but which yet has an infinite capacity of development. The line of that development we may perhaps endeavor to forecast, taking the main indications, as we find them in a survey of mind's evolution, as consisting in the harmonious development of capacities inherent in personality's very nature. This, after all, is only the old idea, familiar to us since Aristotle, of the passage from the potential to the actual. Such potentiality must, however, be referred to more than the mere individual existent; and such passage, whilst it is necessarily difficult and hazardous, is aided by the resources of an infinite Universe. To put our thought in yet other words, the line of advance is from subconsciousness to self-consciousness, taking the latter term in its fullness of meaning, and thereby implying a conscious filling of one's proper place in a world which is nothing less than the ultimate Cosmos.

It has been suggested, e. g., by such writers as Bradley and Bosanquet, that the advance of finite personality must ultimately involve personality's dissolution in the sense of being irremediably lost in that which is higher than itself. It is doubtful, however, if such an idea is really necessitated even by an Absolutist metaphysic. It is also doubtful if experience furnishes us with sufficiently impressive analogies in support of the contention that personality is essentially adjectival to some greater individual. Bosanquet, writing in this connection,⁶ lays great emphasis upon the social analogy. The human person, he rightly contends, is, apart from the social whole, but an abstraction; for the state is a more comprehensive individual than is any single person. This, one would hardly wish to gainsay. But most certain it is that the counter-fact also remains, that the State, apart from its individual members, has no

⁶ *Principle of Individuality and Value*, Chap. viii.

life that it can call its own. The social analogy, one would not seek to deny, has great significance for such a view as Bosanquet's on the relation in which finite selves stand to the Absolute; but nevertheless it appears to have still more significance for other points of view which, recognizing to the full the uniqueness of personality, claim that to the part played by a person within the Absolute no theory of adjectivity can possibly do adequate justice. It is open to us to contend that the indications provided by the field of experience to which we are now alluding point to the conclusion that individuality of personality and social unity advance and recede *paripassu*. It is surely no fusion of lesser individuals that the conception of the State indicated or demands, but the bringing of many and diverse gifts into one common service. It is thus that each individual, if he only will, can perform a task which, just because he is he, none other could perform so well; and, in so doing, sustains, and is sustained by, that which is greater than himself.

The case for the supporters of an adjectival theory of personality is admittedly not exhausted by the illustration just criticized. It will, however, be found that the principles implied in that criticism are capable of a sufficiently wide application.

Personality is something which, in actual experience, shows itself fractionally, and in greater or less degree. We cannot, therefore, suppose that persons, as we see them, are otherwise than as yet in the making. It is obvious that we cannot point to any level, or stage, as being final. All of which can only mean that what personality is capable of becoming, or, in other words, really is, is something on in front—in the nature of an ideal rather than an actuality. It is when we turn to a consideration of the world's great individuals or persons that we get a glimpse of the heights to which personality is capable of ascending. It is towards such individuals as these that we must direct our gaze if we desire to have vision of what personality may become in its uniqueness and yet concrete universality. Our highest ideals—truth, beauty, goodness—are with personality inextricably interwoven. These, whilst they cannot be said to depend for their being upon the part played by persons in isolation from the action of the rest of the Universe, nevertheless depend in a very special sense upon persons to appreciate them and to give them effect in the world of Becoming. Their progressive attainment, it would seem, demands individual knowledge, feeling and conation, of the kind which we can only call personal, together with social co-operation amid a responsive cosmic environment.

Reasoning thus, and bringing together the threads of our foregoing arguments, we shall surely find it infinitely more intelligible and stimulating to regard the future evolution of finite mind as proceeding within personality rather than as involving a non-reversible passage of personality with some form of existence higher and other than itself.

As we survey the wide fields of psychology, biology, and philosophy, we are not without indications that the human individual is better equipped for his further upward journey than he commonly realizes. At the extent of his capacities of mental storage and creation we can but dimly guess; we only know that it far exceeds what we have commonly supposed. We are only just beginning to suspect that through the uncharted areas of his "subconsciousness" the human person is not merely connected with his racial past but also with a present environment of inconceivable immensity. To put the matter in few and closing words, we see, within the life of personality, indications of powers that suggest with respect to personality itself vast possibilities—possibilities of immeasurably increased scope of thought and action and of a nearer approach to ideals that belong to an eternal world of reality. Further than this, it is difficult and unsafe to speculate; but most certain it is that when we speak of personality we can give to this idea no more than a partial content. For, to use the oft-quoted words of T. H. Green, "it is only little by little, as we gain fuller knowledge of the soul's capacities, that we can give the idea of self-realization its filling." And by "self-realization" must be understood that personality which is progressively attained by way of evolution.

REFERENDUM ON WAR

BY JAMES D. BARNETT

NO TRUE believer in the principle of democratic rule could contend that wars should be made by the government of a democracy otherwise than in accordance with public opinion. But there is controversy as to how far and in what manner such opinion should be ascertained.

The proposal is older than the Great War, but it was the apparent drift of the United States into the war that first gave rise to much practical discussion of the application of the referendum to a declaration of war by congress. Advocates of the referendum were, many, if not all of them, opposed to our participation in the war, and the proposal was at that time, therefore, naturally obnoxious to all (including this writer) who favored our participation in the war. The same sort of opposition met the proposal of the referendum on war when advocated in connection with the ratification of the Covenant of the League of Nations. But the referendum may now, perhaps, be considered more or less in the abstract, as a democratic institution, and its real merits appreciated.

In the absence of proper means of bringing public opinion to bear, the people's representatives may easily involve the country in a war without popular approval. This is considered to have been the case with the German people in the Great War. Said our president: "We have no quarrel with the German people. We have no feeling towards them but one of sympathy and friendship. It was not upon their impulse that their government acted in entering this war. It was not with their previous knowledge or approval. It was a war determined upon as wars used to be determined upon in the old, unhappy days when people were nowhere consulted by their rulers and wars were provoked and waged in the interests of dynas-

ties or of little groups of ambitious men who were accustomed to use their fellow-men as pawns and tools.”¹ And the same is possible in our own democracy.

Experience has shown that a people, although bitterly opposed to a war, will, once it is actually begun by the constituted authorities, cease their opposition and aid in bringing the war to a successful conclusion. As Bryan, an opponent to our entering into the Great War, said, after the decision had been made: “There is no such thing as pacifism now. No matter what our own and separate views on the question of war and preparedness before the war, there is only one opinion now, and that is for the best preparedness and in as short a time as possible.”² Let the people be substituted for congress as the final authority, so far as possible.

Whatever the actual facts in the case, a government always necessarily assumes that a war it wages is a popular war, and it must do all in its power to make it actually such, once the war has begun. “It is . . . evident from the run of facts as exemplified in these modern wars that while any breach of the peace takes place only on the initiative and at the discretion of the government, or state, it is always requisite in furtherance of such warlike enterprise to cherish and eventually to mobilize popular sentiment in support of any warlike move.”³

It is sheer folly to assert that “the constituted authorities,” elected by the people, necessarily voice the sentiments of the people in regard to war. It is true that if unusual circumstances permit, as in the presidential election of 1916, entry into war becomes more or less an issue. Thus, both Wilson and Ford received many votes because of their inclination “to keep us out of the war.” But in such cases issues and men are necessarily badly mixed, and the popular majority is not really finally conclusive of anything at all. However, insofar as such a majority is used as evidence of public opinion on war, the *principle* of the popular referendum is practically accepted.

And the principle is in fact accepted generally, in the view that the authorities *should and do* attempt to ascertain the people’s will

¹ *Congressional Record*, Vol. 55, p. 103 (1917).

² *New York Times*, April 23, 1917. See also Henry Ford, *Ibid.*, August 16, 1917. “To this day I regard the Mexican war . . . as one of the most unjust ever waged by a stronger against a weaker nation. It was an instance of the republic following the bad example of European monarchies, in not considering justice in their desire to acquire additional territory. . . . Even if the annexation itself could be justified, the manner in which the subsequent war was forced upon Mexico cannot.” U. S. Grant, *Memoirs*, Vol. I, p. 53 (1885).

³ T. Veblen, *Nature of Peace*, p. 4 (1917).

in the matter. Referring to the Great War, it is said: "Editorial comments in more than two thousand daily newspapers assured the president that the people were with him at each step toward the final call to arms. How carefully the head of the nation studied the popular effect of these messages was demonstrated by the fact that summaries of editorial opinion embracing extracts from several hundred leading newspapers in every part of the country were laid before him within twenty-four hours after the publication of an address or message."⁴ On March 21 the state of public opinion was more than evident, it was loudly vocal, and the president would hesitate no longer."⁵ The president stated his position thus: "One day one of my colleagues said to me, 'Mr. President, I think the people of the country would take your advice and do what you suggested.' 'Why,' I said, 'that is not what I am waiting for. . . . I do not want them to wait on me; I am waiting on them. I want to know what the conscience of the country is speaking. I want to know what the purpose is arising in the minds of the people of this country with regard to this world situation. I must wait until I know that I am interpreting their purpose, then I will know that I have got an irresistible power behind me.' And that is exactly what happened! When I thought I heard that voice, it was then that I proposed to the congress of the United States that we should include ourselves in the challenge that Germany was giving to mankind."⁶

It is of course the right, and the duty, of citizens to influence their government to proper action in making or refraining from war, as well as in other directions. As Roosevelt said: "While I believe that once war is on, every citizen should stand by the land, yet in any crisis which may or may not lead up to war, the prime duty of the citizen is, by criticism and advice, even against what he may know to be the majority opinion of his fellow-citizens, to insist that the nation take the right course of action."⁷

The principle of the proper relation of representatives to the people in this regard, which, under present conditions, would probably be universally accepted, is embodied in a powerful address by Elihu Root⁸ before the Union League Club. "Germany is making war upon us. . . . Gradually a feeling is making its appearance, a restiveness of the people of the country. . . . There are multitudes

⁴ H. S. Houston, *Blocking New Wars*, p. 132 (1918).

⁵ J. S. Basset, *Our War With Germany*, p. 107 (1919).

⁶ H. Foley, *Woodrow Wilson's Case for the League of Nations*, pp. 13-14 (1923).

⁷ *New York Times' Current History*, Vol. 3, p. 18 (1915).

⁸ March 20, 1917. *United States and War*, pp. 27-32.

of American citizens who are asking, 'What can I do for my country now in this grave crisis?' They can do nothing except through the executive department at Washington. What is there we can do? Only this: We can perform the duty of a free, self-governing people, by speaking in clear and certain tones, so that the spirit and the purpose and the will of a free people may be heard in Washington, and our government may know that the American people will be behind it, supporting it, approving it, sustaining it in maintaining the honor and the integrity and the independence and the freedom of our republic. My diagnosis of the situation is that the president wants to hear from the people. He has said so many times. He wants to hear whether the people want him to go on and act. Let us answer to his want and tell him that the American people do want the government not to discuss, and plan, and talk about what is going to be done, but to act. Let us say to him, and if we say it, others will say it also, that we wish all the powers he has now to be exercised; and let us say to congress—and if we say it others will say it also—that we wish to give to the executive all the additional powers that may be found needed for the exercise of the entire force of this great nation for the support of its independence and honor. . . . Now, if our voice can be heard, if we can do something, anything, to make our government feel that the free and loyal people of America want it to assert the principle of American liberty and freedom, and to assert them with the power of this great people, for God's sake, let us do it."

And it is the general custom of individuals and groups of every description, through platform and press, by letters, petitions, and memorials to their representatives, and otherwise, to urge or to discourage the government's entry into war. But however frequent and emphatic such demands may be they are, at best, but a poor index of what public opinion actually is. What is really needed is the expression of opinion by *all of the people* rather than by *part of the people*. This can be obtained in no other way than by the submission of the question to *all of the people*.

There is certainly nothing of more vital importance to the people, and nothing which the people have more of a right to decide for themselves, than the question of making war. A matter of such vital interest as war is always considered by the people from its earliest possibility; the facts in the case, widely published, are generally available for their consideration; and the people are thus better qualified for deciding this question than any other question

of policy that can possibly come before them. Opponents of the referendum should, logically, also oppose all those practices, now generally approved, the object of which is to influence the government's policy as to the declaration of war.

Opposition to the referendum on war is, at bottom, opposition to the principle of democratic government in general.⁹ "If there is any merit at all in the doctrine that governments must derive their just powers from the consent of the governed, surely the governed ought to have the right to decide for themselves, by popular vote, a question as important as going to war."¹⁰

It is very true that there may be cases of emergency in which it would be entirely impracticable for congress to consult the people upon the policy of declaring war. But probably no responsible person has ever seriously advocated a mandatory referendum that should bind congress in cases of emergency.

The proposition has usually assumed one of two forms. One requires a referendum of the declaration of war, except in the case of "threatened invasion," "actual invasion," "imminent danger," "defensive warfare"—in general, in case of "emergency." The other calls for an "advisory" vote on the question of peace or war—generally, or except in case of invasion, etc.

In either form the immediate decision must of course rest with congress. Whether under the circumstances an emergency has arisen of sufficient gravity to justify action without consulting the people, whether the advice should under sudden change of conditions be followed, can be decided immediately by no other authority. But in the absence of a popular vote, no declaration of war should be effective unless passed by an extraordinary majority of the two houses of congress.

Doubtless it is possible that congress, even under this restriction, might abuse its discretion in this matter, as it does in many other matters. However, much the same situation obtains at present in relation between congress and the president in making war. Although the final authority is vested in congress, before congress can act the initiative may be taken by the president, and thus war

⁹ "The ready, courageous recognition of national duty must necessarily lie with those charged with supreme responsibility, who are best able to judge of the exact situation, and the measures required for the security of the true interests of the state, and international society in general. . . . The 'democratization of foreign policies' . . . cannot mean that democracy, by a process of initiative and referendum, could commit the folly of refusing confidence and support to its responsible statesmen in times of diplomatic complications and international danger." P. M. Brown, *International Realities*, pp. 190, 199 (1917).

¹⁰ W. J. Bryan, in *Congressional Record*, Vol. I, p. 1865 (1920).

may in fact be begun without the authority of congress. But the possibilities of the presidents' abuse of power are much greater than are the probabilities. The final discretion of congress operates as a very substantial check upon him.

In case of the abuse of power by congress resulting in the arbitrary determination of the existence of an emergency and a declaration of war contrary to the wishes of the people, it is very probable that, except under the most extraordinary circumstances, public sentiment would yield, however reluctantly, to the decision even if further provision should be made for an appeal from congress to the people *while hostilities continued*. But a really outraged public sentiment would have at least some protection from such further provision.

Of course, it would be best, if possible, to secure world-wide provision for the referendum through international convention; but, in the absence of such convention, there is no good reason why the referendum with the limitations advocated, should not be adopted first by the United States acting alone—and this whether or not the United States becomes a party to the League of Nations or any similar form of world organization.

SCIENCE AND THE END

BY KEIGHLEY SNOWDEN

I

BEFORE the War, there were few enlightened minds not sustained, against the miseries of the world and private griefs alike, by a hope that is the subject of this book. However vaguely, it was believed that we should reach the definite truth about the constitution and end of the Universe. So high did the hope shine that Maeterlinck, making a noble plea for wise living in the meantime, could not think it impossible that, any day, we might receive with this truth, say from Mars, the infallible formula of happiness; and all our social life, as well as the most ardent of political movements, took color and courage from the expectation.

It was taken for granted that the constitution and end of the Universe are good. Science had assured us of a law of progress. And the worst consequence of the War, not always recognized as such, is that the hope in question has become a fear. Too much appears now to portend that, for mankind at least, the key to the enigma, when found, will open a Pandora's box of evil. We are thus thrown back behind the thought of a whole half-century of optimism; and it is the worst consequence because the forces of good are hurt by it, and all public hopes whatever are feebly held.

The old religions being already shaken, it is perhaps a misery peculiar to our day that many good men die hopeless. I mean such men as do not think much of themselves in dying, but think of those they leave alive, and of all who are to live after them. To such men their own case appears no longer important; but they quit a scene of disillusionment and terrible disaster that may, it seems, continue ugly. Among the old ideas of what is good they see none strong enough to control it, and among new ideas none clear. They die willingly, but of all deaths theirs is the most pathetic, because we who look on cling to hope instinctively and cannot tell them why.

It is the purpose of this book to show reason for believing that the constitution and end of the Universe are good, and therefore that the fear is groundless. The reason in question is new, and it is scientific. I do not think, however, that it can be rejected by any one free from the bigotry of old-world concepts and authority; and, as science has made us citizens of the World, conscious and responsible as men in the past have not been, it is at least fitting that science should furnish this certainty.

II

There are, it is true, those who still hold that men ought only to believe about the World's plight what was told them long ago. But, if they were right, the discouragement now felt would be no new problem. They are pessimists by creed, since they believe the World to have been cursed for a woman's disobedience. If there is any urgency in the case now, it must confirm that view of things, and should oblige us to accept it; for, towards science, their disposition can only be to recall the taunt of Job's antagonist Zophar, "Canst thou by searching find out God?" They have not admitted a law of progress, and cannot care to know why this law appears to be one exceeding their desire and forecast. Such intractable minds must be left aside. But all others are today concerned, much as Job was, with the spirit in which the World is ordered.

It will be understood that an author withdrawn from active affairs, and without the kind of repute that might command instant publicity for a great reassurance, must have asked himself in some constraint what one man's thought can ever be worth in such an urgency as in fact stares us in the face, perhaps the greatest in recorded time as to cause, effect and diffusion. More than that: the subject is so disproportionate to one man's mind that he cannot handle it without some air of pretentiousness, however soberly.

But neither of these reflections is, or should be, crippling. The due service of each of us is what he can accomplish, and no mind is lit by a thought properly to be called its own: every thought is the focus only of countless rays that have fallen from remembered and unremembered other minds. Or the thought of any age may be compared to a chemical solution; the first group of atoms to crystallize has not even an accidental merit above the rest. There are

many minds, equally informed and equally candid, and each can only give out the truth as he conceives it, content if truth prevail in the measure of its unknown value. In this case, at any rate, others will not be likely to deny or to underestimate the urgency that prompts to such service.

III

This urgency is not more to be seen in loss of hope, with its enfeebling and tragic pressure, than in misdirections of hope, at all times the cause of human disaster. These indeed are the crux. Since hope is part of the essence of life, no disaster can either extinguish it or much dim it; but it is only a clear, steady flame as intelligence trims and shields it. There are times, as in Russia lately, when it burns like a smoking candle and men are maddened by a fume. Well that it can never be put out; but, what is not well, all the winds blow this flame about now. Except in France, where there are sceptical heads, it is least sheltered among democracies, whom the unanswered question of Job's comforter must concern. Less dangerously, but strangely, this essence of life is sometimes kept apart for death, and there are cults among whom it flickers like a corpse-light in hearts grown wistful.

Observe what is critical. Men in general are not persuaded easily to defer their hope beyond death, as they were formerly. This life itself will be proved by the present generation; and it seems unlikely that to regard the world we live in as a sort of purgatory will ever serve again. The view is one that did not gain full acceptance even in times of slavery, and it shows no public sign of doing so among free peoples. As against its promise of a postponed justice, the idea of progress has taken deep root. To note the fact is not to scrutinize a view of man's future which comforted, and may doubtless comfort still, unnumbered lifetimes. It is to remark that we are subject to life as an unescapable fact, and have to choose between the best knowledge of it that observation yields and blind experience of it.

There must evidently be misdirection of hope as long as progress is undefined. Can anything else be said to have brought on the War? And is it not natural that, after seeing the violent, useless death of millions, men should wish to know what they can do in such a world as this to make life admirable, and attempt many

things? The problem is our subjection to this life; whether it is as hopeful as we are ourselves instinctively, and if so how? If that problem can be solved now, we have a means of guidance available. If it be inscrutable, we are scarcely better off for this life's case than creatures of pure instinct, for we are destined to abide the issue in spite of ourselves, hampered as much as helped, perhaps, by our intelligence. Then, no doubt, we might be plausibly asked to believe about it what other men have heard. But in that case there is little gain in progress. World consciousness, world intercourse, the growth of knowledge, new discoveries and inventions, these are so many turns of the screw.

Are we to think them such? It must be owned that, like all ignorance which finds not till it feels, misdirected hope finds in disaster a spur of our development. But this development is towards intelligence; we are not, it seems, driven by something like the moth's instinct towards a flame. Is there not still the spur in those triumphs of science and enterprise, which put horrible weapons in our hands, sway us with strong temptations, and have contributed little to our wisdom? Do they not make it more than ever necessary to discern the end to which we are being shaped? After a prodigious nineteenth century, the spur was driven hard into our flank, and we must fear it. But, if we can understand and obey it, that may have been the winning touch.

IV

Expounding his quiet thought for the individual soul, Mr. Maeterlinck said beautifully all that can be said while these great temporal facts are left as mysteries.

"Humanity has been until now like a sick man turning from side to side on his bed to find repose; but it is not less true for that, that the only consoling words ever said to him have been said by those who spoke as if he had never been sick. This is because humanity is made to be happy, as a man is made to be healthy; and when one speaks to him about his misery, even in the midst of a misery universal and permanent, one seems to be using only accidental and provisional words. There is nothing misplaced in addressing humanity as if it were always on the eve of a great happiness or a great certainty. In reality, that is its instinctive position, though it never attain the morrow. It is good to believe that a little more thought,

a little more courage, a little more love, a little more curiosity, a little more ardour of life will suffice some day to open for us the doors of joy and truth. That is not altogether improbable. One may hope that one day everybody will be happy and wise; and, if the day never comes, the hope will not have been criminal. . . .

"It is not given to every man to be heroic, admirable, victorious, a genius, or even happy in external things. But the least favored among us may be just, loyal, mild, fraternal, generous; the worst endowed may learn to look about him without ill-will, without envy, without spite, without useless sadness; the most wholly disinherited may take I know not what silent part, which is not always the least good, in the joy of those who surround him; the dullest may know up to what point he pardons an offence, excuses an error, admires a word or an action; and the least loved may love and respect love."

When that was written, the world had not been surfeited with horrors. Such consolation may still be good for simple minds and quiet hearts, but it treats the problem as elusive and negligible.

V

Nor can man find out God while he thinks that he knows God already. He must first forget, or with a rare candour put aside for this problem, what he has been told or has reverently imagined. It is not to be done easily by every one. Perhaps it is not to be done willingly, even with a scientific purpose in mind, by any one for whom an old belief is quite valid. But, if it be admitted that science has shown our race to be part of the order of Nature, and subject to her laws, or if no more be admitted than the sway of these laws upon us, the inquiry is not to be burked. We ought to know what Nature is doing with us, and to accept any consequence.

There is a preconception common to the western nations, which stands in the way even so. It is that, although God made the world, and us in it, something must have happened to embarrass his purpose, so that this is not to be divined by any contemplation of his handiwork. True, the old legend of man's fall is no longer taken literally, and most men suppose, more readily than they seek the evidence, that there has been some long development, some kind of ascent; but it is possible that the old mistrust of nature in which that legend was conceived is little abated. How are we to account for all those inimical things referred conveniently to a curse? They

at least are authentic. They cannot be relinquished with the legend, but rather seem in these days to be more than ever substantial and importunate. Say that man's folly brought the War upon himself: there is still to be explained a class of uncontrollable calamities, like that which lately struck Japan.

Others, like the germ diseases, have been spurs to our ignorance, but who hopes to control earthquakes or tempests? And what good purpose do they serve? More than any conception of God, their stubborn prevalence makes a difficulty. No such conception today is that of Judea, or that of the Middle Age in Europe; and it is widely understood that our conceptions have at all times, and among all peoples, been such only as they could form. So have our thoughts of sin, which even in one generation are greatly altered. But a defective world remains, and evil remains, with whatever soul of goodness may be distilled from it; and few worshippers allow God's handiwork in what seems wholly evil or a flaw.

But if it should only seem so? This would interest thousands of those who are consoled by Mr. Maeterlinck.

VI

Is it, in fact, much to ask that one should look at our situation at least as freshly as a good detective examines the scene of a crime? He has, of course, a preconception, namely, that what he sees indicates a crime in fact; but, being a competent man, he goes to work dispassionately. It is necessary to have his mood and method for the present inquiry, and on the face of things it should not be difficult to copy either, because no one thinks the case of nature as bad as that of a criminal. She is known to have some excellent traits of character, and seems rather to blunder than to mean mischief.

But in practice this mood and method cannot be attained by simple consent. One is not an outsider called in, but the victim, whose preconception is that he has been injured. How many men live with such a self-sufficient courage as never to need consoling? It may be doubted if there are more than those who do not feel keenly or think at all, and for whom the inquiry can have no interest, one way or another. Yet, obviously, this question, whether Nature is hostile to us or well-disposed, will not be resolved without impartiality. It is unfortunate that the consolations most commonly accepted con-

demn her in advance and one foresees that all who share the condemnation may either despair or be driven back upon those consolations. Browning's famous cry is not now common.

VII

Even rationalists have a preconception to put aside, and one which, when it is pointed out, they will recognize as begging the question. It is true that when they do not admit the notion of God they impute no hostile intention to Nature; and that, if the inquiry be limited to ascertain what may be called the spirit of the world, and cleared of that *petitio principii* which allows to the world an intelligent author, they will be the first to welcome it. This shall be done, then. If it were not done, the conclusion reached could not claim to be scientific. This is strictly a rational inquiry, as they will presently see; and its aim is not their conversion to a religious frame of mind, but their emancipation, and that of minds less critical and searching, from the preconception to be cited.

Few rationalists are pessimists now, whatever churchmen may have felt about them or still feel; for loyalty to the scientific method marshals them in the front ranks of modern reform, believing in progress as a verified thing, and a good thing. The belief takes, with them, the place of all old beliefs whatever. That verification which warrants it was a triumph of the freedom of thought and sovereignty of facts for which they had long and bravely contended. They, more than most men, must deplore the discouragement of the hour; and nothing can appeal to them more nearly than an attempt to clear the natural law of progress of its present ambiguity.

The preconception they must recognize appears, very plainly, in Mr. Bernard Shaw's *Back to Methuselah*, where a kind of millennial state is imagined in which love and the arts are put away as childish things. It is that progress is mainly and finally intellectual. Even this, which may seem to be the central hope of rationalism, must be intellectually examined.

VIII

Here is a stern demand upon intellectual modesty, or for it. Are rationalists prepared to consider afresh the evidence of progress, and to see if it be evidence of something larger and less prosaic than

Mr. Shaw's utopia? For, if it is, then rationalism has limitations. In the ascent of man, science has failed as yet to see and to explain anything finer than his intellectual development, and this is the sole help against ignorance and superstition, an agency and promise of relief from human woes, the greatest fact until now established. What other progress can there be, so well worth knowing? Why should one stop to reconsider it? "Modesty" seems to mean perfidy!

Well, no—since it is the intellect that takes account of the fact. The case is not more treacherous than this, that the whole story of human evolution in the past has not been told yet, nor parts of it equally well told. There is an evolution of instincts to be known, as well as of the reasoning mind; and a rationalist is not the likeliest man to undervalue instinct. He neither deems it evil nor holds a brief for Mr. Shaw's imagination. No such thinker schooled to be sincere can be, indeed, intolerant of new thought or fear new evidence, and the discouragement, harmful to rationalism, concerns it sharply. Only, this discouragement implies so grave a doubt of man's destiny that it obliges one to look afresh at his actual situation, quality, and prospects on the earth. Afresh must mean with fresh minds.

In a new and really tremendous phase of that situation, fraught with commensurate peril, we have no rational choice but to see it clearly if we can, and no more urgent concern. Our race is part of the order of Nature. What is Nature doing with us?

IX

When we know the answer to that question well enough, there will be an agreed and accepted definition of progress. For want of such a finger-post, one sees mankind at cross purposes, confused and fearful, even insensate. How can we tell if, at the moment, we are off the track, or where it lies and leads? As there is no plain sight of the road we have travelled from ages very remote, it is impossible to guess a direction ahead, and much more so to be sure of one.

Is there, then, a duty more peremptory for science than to map the road? No one, able to realize what has happened and is happening, can say that we do not need the map and hope to be acquitted of infatuation. No one at all will say that science does not owe us such a map, if she can furnish it. She it was who augmented our

peril and confusion suddenly, and their measure, if it could be taken, would be the measure of her debt. The claim is to be made although she has conferred priceless benefits *per contra*; nor can it wait if she is able to meet it in any measure, because our lives and liberties are staked on the issue.

X

Let us see if the assets of science enable her to meet this claim, either in full or in part. Are the data for preparing such a chart of human movement known to her? The need, it is evident, will be served if a chart true as to the main points of direction can be drawn ever so roughly, to be afterwards filled in. We shall see where we are, and towards what horizon to set our faces.

Scientific thinkers had shown at least partially, and perhaps sufficiently, how man may have naturally risen above the apes in manual skill and mental power. Was this the only essential teaching they might have made familiar? By itself, this is the *carte blanche* of materialism; and, together with Darwin's insistence that the fittest to live in any given conditions do so, it has been taken as the *carte blanche* of worse. Was there nothing else either explainable or needing to be explained? For, in that case, we must think it by some skill of a quite practical kind, whether of thought or of hand, that man has refined upon what the apes feel and imagine. But feeling and imagination are not practical abilities. There was evidently something else. No scientist, in fact, said that there was not; the case is only that all omitted or failed to explain that something, and that, until our worst disaster befel, its importance was not suspected by any.

It is nothing less, however, than human dignity. This, beyond question, is one of the known data, as valid a natural fact as human cleverness. Is it a fact in spite of evolution, or ought it to have been as well accounted for? It may be the greater fact of the two. Common feeling, common admiration, what is called common sense, makes it seem so, at any rate. Why was it overlooked?

XI

Unless human dignity were shown to be part of our destined evolution, a response to natural law as much as cleverness, it must

be thought, by any man reckoning for this actual life, a vain thing; by men reckoning for another, a precarious thing. Is it not so esteemed in fact? The late Mr. Clutton Brock found no good man ready or able to contradict the statement that it is, although he wrote as follows:

“Conscience has ceased to believe in its own power, has come to think of itself as a vain and inexplicable rebellion against the nature of things. This rebellion we call sentimentality, meaning thereby that it is not really moral; for true morality would recognize the process to which the nature of man is subject, of which that nature itself is a part, and would cure man of his futile rebellions so that he should not suffer needlessly from them. It would cure man of pity, because it is through pity that he suffers. He is a machine, and, if he is a conscious machine, he should be conscious of the fact that he is one. Such is the belief that has been growing upon us for fifty years or more with many strange effects. It has not destroyed our sense of pity, but has confused and exasperated it. We pity and love still, but with desperation, not like Christians assured that these things are according to the order of the universe, but fearing that they are wilful exceptions to that order, costly luxuries that we indulge in at our own peril.”

There are many qualities besides pity and love, of which all this is equally true. No single ideal, however sanely held, is known to be more than a forlorn hope embraced against unendurable prospects that may be real. Let it be plainly rational, serviceable, indispensable even; let it be such an ideal as mere loyalty between two men of business, or two friends; we are still unaware that the nature of things is not opposed to it. We may say, and do say, “Very well; it’s good enough for us.” But we have no inexorable answer for men to whom it is not good enough.

XII

The precious data for such an answer! Their neglect and value are so plain that it may be doubted if there is anywhere a scientist pursuing new knowledge without misgiving; for such a man may trust that in the long run and on a balance knowledge must be good, but he does not know it. The high faith that there is nothing greater than the truth burns, perhaps, within him; but what is the truth about human nature? Will cleverness make an end of us? Except

that it has not done so, he can cite no scientific reason why it should not: and to whom, if that happens, can the truth matter?

The misgiving suggests that all truth is not equally great, and that the greatest, the truth above all worth seeking out, is that of our destiny. If indeed, it were possible to turn the diligence of all research upon a quest of this magnitude, determining and construing such data as there are, no man of abstract science would have the right, and it is possible that few would have the courage or the disposition, to object. For the case is that, while science has either destroyed or shaken every concept formed by the dignity of human thought and feeling, and was careless of the thing itself, this is now seen to be the main thing that concerns us. And it is within the purview of science. Human dignity is a fact of life, and the scientific presumption must be that natural laws have developed it, and the sense of it.

It concerns us because it is a safeguard more effective for the mass of men, commoner after all and quicker in action, than their endowment of wisdom. Human dignity is instinctive, that is to say something felt, not devised. It concerns us because its authority has been staggered when that should have been established. And pure science, at least, has no preconception as to that authority likely to hamper the inquiry: nor is the pursuit of material gains its own. If there can be no enforced concentration of research to meet our claim, there will be an eager candor of consideration for the data as they are assembled, to recognize the factors of our environment that must or may have forged this dignity, and to see what golden age, if any, it may be rational to forecast and wise to plan for.

XIII

The open mind of the scientific world is to be seen in attempts already made to repair neglect. There are tentative advances without a map. A willingness in which one finds even the element of panic moves men who, regretting the former times of inspiration, look as they did to the supernatural for a sign, deeming that it may be natural after all. This is to seek the knowledge of our destiny by a short cut. What they have learnt is not conclusive, and fails to enhance human dignity: but they are modest, aware that we have less guidance at command than our forefathers. The merit of all schools of psychologists is that they give attention to the proper

study of mankind. However, they do not realize what is lacking to it.

And observe the unlikelihood that men will ever again have an ardent faith in short cuts to knowledge, or in any light said to be obtained that way. When the huge labor of modern science began, it was in scorn of pseudo-knowledge not procured by such labor, and the mistrust of pseudo-knowledge is what science has taught us, without regard to expediency. Her neglect of the proper study, then, is not to be repaired by means less strict than she has followed; or by means less normal and imposing. In these, she is embarrassed and dishonored by amateurs unable to use or to value her method. Most men of research would think it safer to trust in Nature blindly than to see the noble quest of truth compromised by some men's fears and hopes, however amiable or prudent; and what is asked of science is no such diplomacy, but her actual triumph.

XIV

Is this not apparent? It was science that set up the court of truth at last, with laws of evidence and a jurisprudence of deduction; and she arraigned not only superstitions and religions, but all philosophies less fundamental and searching than her own must some day be. It is true that this was done almost unawares. It is also true that, as she became conscious of her office, and laid claim to it, science mistook the service she had to render. This appeared to be decretal and corrective only, and not conservative. She austere judged and disarmed other tribunals without regard to consequences, as if there were none to be feared. But, in doing so, she not only made herself responsible in a sort for those consequences, but claimed, in effect, sufficiency as the highest court; and events have called her prestige in question. Truth is feared itself. Events impeach this highest court in the higher name of wisdom.

What must be the answer of science? Is she to quit the bench, and to see her seat usurped or the court abolished? It is neither easy nor reassuring to imagine that answer. But, for the safety of her prestige, there is none possible, short of the answer that there is no wisdom without truth, and that she has yet to ascertain and promulgate the whole truth; nor will this do unless it allows and brings in a new order of business. The cause list cannot be taken haphazard any longer. She must admit concern for wisdom as well as truth, and so, if it may be, silence and dissuade her accusers.

There is gathered, for the first time, a body of evidence as to the life of man. On this we await a finding that may be her splendid vindication.

XV

For my part, conning over this evidence wistfully, I cannot put aside the thought that if it be sufficient, and if, after such a preparation as the long past of the race implies, man is now to have some inkling of his destiny, our present uncertainties are no greater than the hour. They seem to resemble the "movement of awakening and suspense" in De Quincey's dreams, or in a pageant of which the action begins to be foreshadowed. Is it quite a puerile fancy? I am unable to say so; for the hour is one in which the world can at last receive and preserve against loss a new concept.

Consider this fact. It is a familiar qualm of thinkers who judge of our plight by the records of historic time only, that civilizations have perished with their notions of it utterly, to be succeeded sometimes by inferior ones. Traces in Mexico, Cambodia and the Mediterranean lands, remains elsewhere of strong peoples forgotten by those records, prompt a short argument against the ascent of man. It is not possible to say how much of our vaunted knowledge had been acquired by some ephemeral school of the ancients, and we are asked to infer that all this knowledge may pass into oblivion. But it is not a local treasure. The great play's action has been prepared by the invention of printing, the universal commerce of ships and railways, the telegraph and wireless telephone, photography and what not, a multiplicity of contacts that make of all mankind one family; and man's case is altered. For knowledge to be now lost, not one but every civilization must be sunk without a trace; there must be an unthinkable destruction of all educated men and all printed matter. The short argument is foolish.

There may be disasters yet, and certainly these will come unless we see how to avoid them; but we men of these days shall not in our turn be prehistoric while the world lasts. We shall, however, seem with Athens and Rome to have stood in the dawn of history.

XVI

In the little space of historic time now told, the world has become self-conscious; then in a brief half-century that evidence of man's nature and remote past has been got together. It includes this development. Whether hopeful or not, the finding on it should tell us how to expect the future, teaching us to understand the drama in which we are actors and to know our cues. This finding will be broadcast for posterity.

What natural laws, then, in our environment or in ourselves, have brought us so far along the road, us with our present cleverness and sense of dignity but without wisdom to have guarded against self-slaughter and the break-up of systems? Have any? We desire eagerly to observe such laws if we may know them. For, if not, if there are no such laws, we are precariously upheld by divine and conditional interventions of which less is known than the ancients seem to have known, and cleverness may undo us after all.

Now, it is not doubted, even by any known school of mystics, that there are natural laws intrinsic to man, for example his instincts; and science, in defining these, need fear no enmity. There is notably the instinct of curiosity, which, it seems, making great use of the opposed thumb of an ape-like ancestor, has brought us to our desperate pitch of cleverness. Its potency will not be doubted. What will be doubted, and by some minds stubbornly disliked, is the suggestion that other such laws may have at all built up our human dignity; for the old doctrine was that the instincts are evil, and it is maintained. But these instincts are part of the evidence for fresh consideration.

One would ask in vain how it happened that, when the myth of a primal perfection was found to be foolish, another thought of man's nature than that it is biased evilly did not at once occur. Evidently that myth had been built upon the notion. Evidently this notion did not fit with the new teaching that man has risen and not fallen. It stood naked and at variance. The hint to examine man's nature was surely plain, and, as if to point it, the new teaching was challenged. Could there have been an investigation of greater human importance? Did any other concern the new teaching so vitally? It is an instance of the dispassionate march of science, innocent of strategy, that she did not even see her way in that emergency.

(To be continued)

Substance and Function and Einstein's Theory of Relativity

By Ernst Cassirer

Translated by

WILLIAM CURTIS SWABEY, Ph.D., and MARIE COLLINS SWABEY, Ph.D.

Price, \$3.75

PRESS NOTICES

"One of the profoundest books on relativity of knowledge in its bearings on mathematical and physical speculation, is here contributed by Professor Cassirer to issues raised anew by the Einstein theory.

"Described in more of detail, the book as a whole constitutes a constructive and systematic survey of the whole field of the principles of the exact sciences from the standpoint of a logical idealism which is historically derived from Kant, but which lacks 'the fatal rigidity' of the latter's system. As the author develops his idealistic view, it becomes a doctrine of creative intelligence, showing it to be neither idealism, pragmatism nor realism; as these terms are understood by us, it is rather 'a positivistic and non-static rationalism which seeks to preserve the spirit that unites Plato, Descartes, Leibnitz and Kant, and to show how this spirit reaches its fulfillment in the modern development of mathematical and physical theory.'"—*Boston Evening Transcript*.

"In the last hundred pages or so of the book, the author comes to the exposition of Einstein's theory proper, and here his manuscript has been revised by Einstein himself. This is a most noteworthy contribution and brings the abstract mathematical conceptions of relativity clearly into the philosophical and even psychological field better than anything which has yet appeared."—*The Pedagogical Seminary*.

THE OPEN COURT PUBLISHING COMPANY
CHICAGO

LONDON

NATURE and HUMAN NATURE

Essays Metaphysical and Historical

By HARTLEY BURR ALEXANDER

University of Nebraska

Cloth, pp. 530

Price, \$3.00

Essays idealistic in tone, reflecting a humanistic philosophy in search of "that truth which is knowledge of man's best self and of that wisdom which can make of this truth a spiritual helmsman."

PRESS NOTICES

"A life-time of thinking has gone into all of them, the material utilized has been drawn from well-nigh every department of human knowledge, and the outcome is a volume which will take high rank for its stimulus to the reasoning faculty."—*Boston Transcript*.

"Well considered and beautifully written thoughts."—*New York Tribune*.

"The author shows that he is a consummate dialectician and an adept at the exposition and criticism of special theories, as in his essay on the definition of number. But it is as a study of the deepest values in human experience, that the book will be read and welcomed."—*Springfield Republican*.

"The author is a futurist because he believes that on the whole, despite the powers of evil and darkness, the world is slowly moving toward a higher goal."—*Pedagogical Seminary*.

"Though we cannot accept his dicta, we can admire the beautiful clarity of his style, the delicate, practiced deftness with which subtle philosophical problems are stated; and we acknowledge gladly, too, that in his pages there is nothing to pain or offend; he remains throughout the highly cultured gentleman."—*The Catholic World*.

"Human Personality," . . . "it is an impressive, striking, and deeply suggestive discussion of a tremendously important subject."—*The Hartford Courant*.

"A collection of essays by a scholar who teaches philosophy on the basis of a sympathetic knowledge of anthropology and folkways rather than as an extension of technical epistemology."—*Journal of Religion*.

THE OPEN COURT PUBLISHING COMPANY

122 S. Michigan Ave.

CHICAGO, ILLINOIS

"The Philosophy of a People Is a Function of Its History."

History of Modern Philosophy in France

By LUCIAN LEVY-BRUHL

Reprint of Original Edition Published in 1899. Pp. 495. Cloth, \$2.50.

The present volume deals with those representative men whose works "have had a posterity." Many of them do not belong to successive systems, but they had great influence in preparing, announcing and even checking the consequences of the French Revolution. A partial list of names:

Descartes.	Voltaire.
Cartesianism—Malebranche.	The Encyclopaedists.
Pascal.	Rousseau.
Bayle—Fontenelle.	Condillac.
Montesquieu.	Condorcet.
The Ideologists—The Traditionalists.	
Maine De Biran—Cousin and Eclecticism.	
The Social Reformers—Auguste Comte.	
Renan-Taine.	
The Contemporary Movement in French Philosophy.	
Conclusion.	

Our present day is no doubt a stage of great transition, by which the mind of man is passing on from the state in which religious dogma dominated his thoughts to another state to be realized in the future. It may also be religious, but dogma will not prevail. Repeated and serious attempts at reaction are being made, but which will affect only temporarily the general progress of human development.

This development takes place in obedience to laws, and is inevitably accompanied by a profound moral and social transformation, which can be achieved only with jars, painful friction and even violent lacerations, and those who oppose it, no doubt, fulfil as important an office as those who labor to effect it.

The conflict of doctrines in our own times, makes the reappearance of this book timely.

ORDER BLANK

Date....., 19.....

THE OPEN COURT PUBLISHING COMPANY,
122 South Michigan Avenue, Chicago, Illinois.

Enclosed please find check/money order for \$2.50, for which you may send me a copy of THE HISTORY OF MODERN PHILOSOPHY IN FRANCE, by Lucian Levy-Bruhl.

Name.....

Address.....

Evolutionary Naturalism

BY

ROY WOOD SELLARS, Ph. D.

UNIVERSITY OF MICHIGAN

350 pp., Cloth, Price \$2.50

"The aim of the present investigation is to work out in a systematic fashion the possibility of an adequate naturalism. Evolutionary Naturalism does not sink man back into nature; it acknowledges all that is unique in him and vibrates as sensitively as idealism to his aspirations and passions. But the naturalist is skeptical of any central, brooding will which has planned it all. The Good is not the sun of things from which the world of things get their warmth and inspiration. The cosmos is and has its determinate nature. As man values himself and his works, he may rightly assign value to the universe which is made of stuff which has the potential power to raise itself to self-consciousness in him."

* * * * *

"Let man place his hope in those powers which raise him above the level of the ordinary causal nexus. It is in himself that he must trust. If his foolishness and his passions exceed his sanity and intelligence, he will make shipwreck of his opportunity."

THE OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVENUE

CHICAGO, ILLINOIS

A Christian's Appreciation of Other Faiths

By

REV. GILBERT REID, D. D.

Author of *China at a Glance*

China Captive or Free, Etc.

Cloth, \$2.50

Pages 360

Dr. Reid is the Director of the International Institute of Shanghai, China, where he was established before and during the Great World War. His social and political relations with the Orient during the trying period of China's neutrality created in him a spirit of international understanding which broke down all sense of separateness in human life, particularly in spiritual matters. His book is inspiring to every sincere student of the science of religion and will do much to establish the new order of human fellowship.

Order through any book dealer.

OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVENUE

CHICAGO

BELL'S ADVANCED MATHEMATICAL SERIES

A First Course in Nomography. By S. BRODETSKY (Reader in Applied Mathematics at Leeds University). Pages, 135. 64 illustrations. Price, \$3.00.

Graphical methods of calculation are becoming ever more important in all branches of engineering. The object of this book is to explain what nomograms are, and how they can be constructed and used.

Projective Vector Algebra. By L. SILBERSTEIN (Lecturer in Mathematical Physics, University of Rome). Pp., 78. Cloth, \$1.75.

An algebra of vectors based upon the axioms of order and of connection, and independent of the axioms of congruence and of parallels, is the subtitle of this book. Some of the conclusions derivable from the subject may be helpful to readers interested in the degree of soundness of the foundations of the modern theory of relativity.

A First Course in Statistics. By D. CARADOG JONES (formerly Lecturer in Mathematics, Durham University). Pp., 268. Cloth, \$3.75.

Some acquaintance with the proper treatment of statistics has become in the highest degree necessary for investigation in any field—biological, economic or medical. The constancy of great numbers," one of the fundamental principles of the theory of statistics, makes it almost a science of prophecy.

An Elementary Treatise on Differential Equations and Their Application. By H. T. H. PIAGGIO, M.A., Professor of Mathematics, University College, Nottingham. Pp. 242. \$3.50.

The theory of Differential Equation is an important branch of modern mathematics. The object of this book is to give an account of the central parts of the subject in as simple a form as possible. Differential Equations arise from many problems in algebra, geometry, mechanics, physics and chemistry.

Elementary Vector Analysis with Application to Geometry and Physics. By C. E. WEATHERBURN, Ormond College, University of Melbourne. Pages, 184. Cloth, \$3.50.

A simple exposition of elementary analysis. Vector analysis is intended essentially for three-dimensional calculations, and its greatest service is rendered in the domains of mechanics and mathematical physics.

Weatherburn's Advanced Vector Analysis. Cloth, \$3.50.

The first four chapters of the present volume contain all the advanced vector analysis that is ordinarily required. The remaining portion of the book dealing with applications of the above theory, forms a fairly complete introduction to Mathematical Physics. An historical introduction to the subject is given in the author's Elementary Vector Analysis.

THE OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVENUE

CHICAGO

ILLINOIS

THE CARUS MATHEMATICAL MONOGRAPHS

Established by Mary Hegeler Carus

The Mathematical Association of America announces that the first Carus Monograph is ready for the printer. It is entitled

THE CALCULUS OF VARIATIONS, by Professor Gilbert Ames Bliss, of the Chicago University.

It is intended for readers who have not specialized beyond the calculus. It will make a book of 190 pages, size of type page $3\frac{1}{2} \times 6$, and will contain 45 wax engravings. Bound in cloth and printed on high quality paper. Price \$2.00.

The Second Monograph will be ready soon. The title is **FUNCTIONS OF A COMPLEX VARIABLE**, by Professor David Raymond Curtiss, of the Northwestern University.

While these Monographs are published primarily for the Mathematical Association of America, they will be sold to the Public at a uniform price of \$2.00 a copy.

Send for a complete list of The Open Court Mathematical Series.

THE OPEN COURT PUBLISHING COMPANY

122 South Michigan Avenue

CHICAGO, ILLINOIS

ANATOLE FRANCE

By Lewis Piaget Shanks

A complete and satisfying study of the greatest literary figure in France since Hugo. Presented to English readers in a brilliant and fascinating Essay. Pp. 259. Price, cloth, \$1.50.

PRESS NOTICES

"An Anatolian pocket guide."—*London Times*.

"A whole map of the works of this great man, for which Mr. Shanks book provides a handy, portable key."—*New York Nation*.

"A Service for lovers of books by writing in one volume, a study covering the whole range of France's Works. The work is almost a mosaic."—*London Athenaeum*.

"It is inspiring to the reviewer to meet with such a book as Professor Shanks' study of Anatole France."—*Chicago Evening Post*.

Order Blank

THE OPEN COURT PUBLISHING COMPANY,
122 South Michigan Avenue, Chicago, Illinois.

Please send us copy of ANATOLE FRANCE by Lewis Piaget Shanks, for which we enclose (check/M. O.) for \$1.50.

Name.....

Address.....

The First of the PAUL CARUS MEMORIAL LECTURES will be ready February 1st. It is entitled

EXPERIENCE AND NATURE

By Professor John Dewey of the Columbia University

Chapter	CONTENTS
I.	Experience and Philosophic Method.
II.	Existence as Precarious and Stable.
III.	Nature, Ends and Histories.
IV.	Nature, Means and Knowledge.
V.	Nature, Communication and Meaning.
VI.	Nature, Mind and the Subject.
VII.	Nature, Life and Body-Mind.
VIII.	Existence, Ideas and Consciousness.
IX.	Experience, Nature and Art.
X.	Existence, Value and Criticism.

Large 8vo. Printed in clear type on good paper. Pp. 500. Cloth, \$3.00.

THE OPEN COURT PUBLISHING COMPANY

122 South Michigan Avenue

Chicago, Illinois

SCIENCE, TRUTH, RELIGION, AND ETHICS

as Foundations of a

RATIONAL PHILOSOPHY OF LIFE

By HARRY MANN GORDIN

The author's object, as stated in his own words, is to determine the real natures of Science, Truth, Religion and Moral behavior, and on the basis of these entities properly defined to set up a strictly rational philosophy of life, that is, a philosophy of life that is perfectly free from supernaturalism, mysticism, and metaphysical speculations, and is in full accord with a natural science.

In refuting the absurdities of our inherited religions, the author claims no originality, although it may safely be said that he has stated the case against orthodoxy with delightful clearness and with relentless logic, so that open-minded readers will get much pleasure as well as information from his summing up of the argument.

Price, \$3.00 Net

Mrs. H. M. GORDIN

4627 Magnolia Avenue

CHICAGO, ILLINOIS

THE GEOMETRY OF RENE DESCARTES

Translated from the French and Latin

By DAVID EUGENE SMITH and MARCIA L. LATHAM

This epoch-making work of Descartes is the first printed treatise that ever appeared on Analytic Geometry.

The great renaissance of mathematics in the Seventeenth Century contains stars of the first magnitude of which *La Geometrie of Descartes* and *Principia* of Newton are the most famous.

The publishers were fortunate in securing a copy of the first French edition printed in Paris in June, 1637, and a facsimile of this edition accompanies the English translation page for page.

It is an important contribution to the history of mathematics which is rapidly gaining recognition as the foundation of exact science.

Fully Illustrated with Geometrical Drawings, Figures and Formulae.
Price, cloth, \$4.00

THE OPEN COURT PUBLISHING COMPANY

CHICAGO

122 S. Michigan Ave.

ILLINOIS

Saccheri's Euclides Vindicatus

Edited and translated by

GEORGE BRUCE HALSTED

Latin-English edition of the first non-Euclidean Geometry published in Milan, 1733.

Pages, 280

Cloth, \$2.00

A geometric endeavor in which are established the foundation principles of universal geometry, with special reference to Euclid's Parallel Postulate.

THE OPEN COURT PUBLISHING COMPANY

122 SOUTH MICHIGAN AVENUE

CHICAGO

ILLINOIS

Cornell Studies in Philosophy

Published Under the Editorial Supervision of
the Professors in the Sage School of
Philosophy in Cornell Univer-
sity, Ithaca, New York

RECENT NUMBERS

- No. 9. **Schopenhauer's Criticism of Kant's Theory of Experience.** By Radoslav A. Tsanoff, A.B., Ph.D.—pp. xiii, 77.....\$0.75 net
- No. 10. **The Principle of Individuality in the Philosophy of Thomas Hill Green.** By Harvey Gates Townsend, A.B., Ph.D.—pp. vi, 91..... 1.00 net
- No. 11. **John Dewey's Logical Theory.** By Delton Thomas Howard, A.M., Ph.D.—pp. vi, 135..... 1.00 net
- No. 12. **Some Modern Conceptions of Natural Law.** By Marie T. Collins, A.M., Ph.D.—pp. vi, 103..... 1.00 net
- No. 13. **The Ethical and Economic Theories of Adam Smith.** By Glenn R. Morrow, M.A., Ph.D.—pp. vi, 92..... 1.00 net
- No. 14. **The Philosophical Bases of Asceticism in the Platonic Writings and in Pre-Platonic Tradition.** By Irl Goldwin Whitechurch, A.M., Ph.D.—pp. 108..... 1.00 net
- No. 15. **The Logic of Contemporary English Realism.** By Raymond P. Hawes, A.B., Ph.D.—pp. 147..... 1.25 net
- No. 16. **The Philosophy of Emile Boutroux as Representative of French Idealism in the Nineteenth Century.** By Lucy Shephard Crawford, Ph.D.—pp. viii, 154. 1.50 net

LONGMANS, GREEN & CO.

55 FIFTH AVENUE

NEW YORK

Publishes: WILLIAMS & NORGATE, London—WILLIAMS & WILKINS CO.,
Baltimore—FELIX ALCAN, Paris—NICOLA ZANICHELLI, Bologna—
RUIZ HERMANOS, Madrid—RENASCENCA PORTUGUESA, Porto
—THE MARUZEN COMPANY, Tokyo.

“SCIENTIA”

INTERNATIONAL REVIEW OF SCIENTIFIC SYNTHESIS

Published every month (each number containing 100 to 120 pages)

Editor: EUGENIO RIGNANO

- IS THE ONLY REVIEW** the contributors to which are really international.
- IS THE ONLY REVIEW** that has a really world-wide circulation.
- IS THE ONLY REVIEW** of scientific synthesis and unification that deals with the fundamental questions of all sciences: the history of the sciences, mathematics, astronomy, geology, physics, chemistry, biology, psychology and sociology.
- IS THE ONLY REVIEW** of general science that by its articles on statistics, demography, ethnography, economics, law, history of religions and sociology in general—all of a general, summary and synthetical character—makes itself a necessity to all thorough students of the social sciences.
- IS THE ONLY REVIEW** that among its contributors can boast of the most illustrious men of science in the whole world. A list of more than 350 of these is given in each number.

The articles are published in the language of their authors, and every number has a supplement containing the French translation of all the articles that are not French. The review is thus completely accessible to those who know only French. (Write for a gratis specimen number to the General Secretary of “Scientia,” Milan, sending 1 sh. in stamps of your country, merely to cover postal expenses).

SUBSCRIPTION: \$10.00, Post free

Office: Via A. Bertani, 14-Milan (26

General Secretary: Dr. PAOLO BONETTI.

SCIENCE PROGRESS

A QUARTERLY REVIEW OF SCIENTIFIC
THOUGHT, WORK, AND AFFAIRS

Edited by Lieut.-Col. Sir RONALD ROSS

K.C.B., K.C.M.G., F.R.S., N.L., D.Sc., LL.D., M.D., F.R.C.S.

Published at the beginning of JANUARY, APRIL, JULY, OCTOBER

Each number consists of about 192 pages, contributed by authorities in their respective subjects. Illustrated. 6s. net. Annual Subscription, including postage, 25s. 6d.

SCIENCE PROGRESS owes its origin to an endeavor to found a scientific journal containing original papers and summaries of the present state of knowledge in all branches of science. The necessity for such a journal is to be found in the fact that, with the specialization which necessarily accompanies the modern development of scientific thought and work, it is increasingly difficult for even the professional man of science to keep in touch with the trend of thought and the progress achieved in subjects other than those in which his immediate interests lie. This difficulty is felt by teachers and students in colleges and schools, and by the general educated public interested in scientific questions. SCIENCE PROGRESS claims to have filled this want.

JOHN MURRAY

Albemarle Street

London, W. 1