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RELIGION AS MEANING

TIME'S story (Feb. 14) on Carl Jung, surviving member of the great trinity of modern clinical psychology, chronicles the psychological transition of an entire age—an age of almost incalculable changes in human affairs and attitudes. If modern man finally adopts the view of certain ancient mystics and philosophers, to the effect that the real happenings in a man's life must be defined in terms of his own feelings and ideas far more than as external experiences, no small measure of the credit for this transformation in human opinion will be owing to Sigmund Freud, Alfred Adler, and Carl Jung.

These three have been considerably more than "doctors of the mind" or "analysts" for a faithless generation. They also supplied some of the ingredients of a working explanation of human behavior, and this is to say that they were makers of religion. The epoch in which they worked and during which their ideas became known, even "popular," was a period of dreadful emptiness so far as genuine religion is concerned. For if religion be recognized as the way in which men explain to themselves what they are, what they hope to become, and what happens to them—in short, the meaning of human life—then it is plain enough that the first half of the twentieth century was a time of absolute religious famine. The traditional religion of the West had about as much value as an explanation of human existence in the twentieth century as a medieval rock-throwing machine would have in modern war.

It is not that the Eternal Verities have been "dated" by the tumultuous events of modern times. Rather, it is our suggestion that the old versions of the Eternal Verities had hardened into dead forms, so that even Freud's scavenging among buried emotions produced theories with greater validity—greater functional meaning—than the mechanical formularies of orthodox religion.

We do not propose anything like a remodelling of Freudian, Jungian, and Adlerian teachings into a scheme of faith which, with the addition of appropriate pieties, may be synthesized into a religion for the modern world. No religion worth anything at all comes into usage as the result of such artificial designs. Religion involves basic questioning and partial answering. When the questions begin to neglect the matters men need to understand most, the religion is becoming secularized, conventionalized—in a word, dead, so far as its role as meaning is concerned. What we suggest concerning the great psychoanalysts (Freud called his system Psychoanalysis, Adler, Individual Psychology, and Jung, Analytical Psychology) is that they helped to discredit the traditional theory of meaning (or religion) by insisting upon asking question after question and that these questions, plus the partial answers that were supplied, amounted to a great and valuable clearing away of the religious debris of the ages. It is now possible for a man to encounter the mysteries of his life without feeling that the dark constraints of traditional religion shape his questions to the pattern of dogma, that he must seek his answers among the covenants of an unbelievable super naturalism devised many hundreds of years ago.

At the outset, Freud encountered a resistance which was by no means entirely based upon a dislike of his emphasis on sexuality—the view, as Jung put it, that "the brain is . . . an appendage of the sexual glands." Freud's efforts, however they might have been described, were an attempt to deal with the mysteries of behavior, of the mind and the emotions, impartially and scientifically, and this meant, if such an attempt was a good thing, that human beings ought to achieve some kind of self-understanding and balance in their lives. This, actually, is the sort of responsibility one encounters when he determines to live by principle—to develop a personal religion which is independent of the codified morality of religious tradition. Freud really frightened people who feared to think for themselves, who *wanted* to follow the easy decisions of rules left to them in the form of superficial and often hypocritical

conventions. They shrank from Freud's claim that, by following these rules without understanding themselves, they were making themselves sick. One may suppose that the sickness was itself a moral affliction at its root, caused by the dishonesty of the prevailing conventions.

A paragraph from an article in the January *Scientific Monthly* gives the setting of Freud's career:

> Freud entered the scientific scene at a time when the impact of the Darwinian evolutionary theory was tremendous. The bewildering chaos of animal life had suddenly become ordered, logical, coherent, rational. The principle of evolution had revolutionized the approach to life. Man had taken his place in the evolutionary scale as a highly developed animal. He was no longer a divine creation, static, and unchanging, but a phenomenon of nature, who could be studied and examined as a product of natural forces. If biologically man was a natural phenomenon, then perhaps psychologically he was also. In this intensely biological and rational atmosphere Freud approached the problem of the neuroses of man.

The thing that seems important, now, is not that Freud dealt with human behavior as though there were no *man* at all, only a mechanistic conjunction of forces, but that he established a method of study which was fearless in its determination to look at forbidden aspects of human behavior, regardless of consequences. This energy of research, once released, could hardly be made to flow through strictly "Freudian" channels. Adler made the will-to-power the key to his system, instead of sex. Jung regards the hidden side of human nature, the "unconscious," as, in *Time's* apt summary, "not merely a trash basket for disagreeable experiences thrown away by the conscious mind, but a vast subterranean storehouse full of both good and evil." And, as time passes—

> there is a constant splintering: besides the Jungians and the Adlerians, there is a whole spectrum of deviationists—followers of Karen Horney, Otto Rank, Erich Fromm, Harry Stack Sullivan, Franz Alexander, Melanie Klein. There are also more and more eclectics who derive most of their theory from Freud but add a little of Jung and Adler or a dash of Horney and Sullivan. Many of them nowadays admit that Freudian analysis may have been too narrowly based on sexual drives, and that other matters—even religion—ought perhaps to be considered.

Today, the opposition to psychoanalysis is disappearing, and with it the sectarianism among the analysts. When Freud first announced his theories, they brought a response something like that which might be expected from a collection of people about to take an examination, all of whom have brought little answer-books with them, when they are told that their answer-books are no good any more, and that they must learn to think for themselves. Freud's experience of the hostility of conventional society toward any questioning of its habits and attitudes was probably as extensive as that of a religious reformer. In the opening lecture of A *General Introduction to Psychoanalysis*, he wrote:

> . . . if any one of you should feel dissatisfied with a merely cursory acquaintance with psychoanalysis and should wish to form a permanent connection with it, I shall not merely discourage him, I shall actually warn him against it. For as things are at the present time, not only would the choice of such a career put an end to all chances of academic success, but, upon taking up work as a practitioner, such a man would find himself in a community which misunderstood his aims and intentions, regarded him with suspicion and hostility, and let loose upon him all the latent evil impulses harboured within it.

It was hardly remarkable that, in these circumstances, the early Freudians banded together like persecuted adepts of a new psychological religion, requiring strict orthodoxy of anyone who joined their number. And since controversy in matters of psychology makes for oversimplification and even dogmatism, the learned world eventually came to be afflicted with Freudian slogans and even Freudian formulas which, on the whole, tended to make the movement still more distasteful to persons who had no reason to take up the new psychological "fad." Meanwhile, however, the vacuum left in human lives by the failure of religion continued, and psychoanalysis was at least a tool for coming to grips with the baffling facts of emotional life. The novelists sensed the new leverage it afforded for character analysis, and the radicals, themselves already outcasts from conventional society for other reasons, hoped that psychoanalysis would be the

means of persuading people to take a more "realistic" view of human nature, and help to wear away religious objections to the revolutionary project.

The real "revolution," however, was described by Jung many years after he had separated from Freud, in his book, *Modern Man in Search of a Soul* (1939):

> . . . why is there suddenly so much interest in the human psyche as something to be experienced? This has not been the case for thousands of years. . . . The rapid and worldwide growth of a "psychological" interest over the last two decades shows unmistakably that modern man has to some extent turned his attention from material things to his own subjective processes. Should we call this mere curiosity? At any rate, art has a way of anticipating future changes in man's fundamental outlook, and expressionist art has taken this subjective turn well in advance of the more general change.
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> This "psychological" interest of the present time shows that man expects something from psychic life which he has not received from the outer world: something which our religions, doubtless, ought to contain, but no longer do contain—at least for the modern man. The various forms of religion no longer appear to the modern man to come from within—to be expressions of his own psychic life; for him they are to be classed with the things of the outer world. He is vouchsafed no revelation of a spirit that is not of this world; but he tries on a number of religions and convictions as if they were Sunday attire, only to lay them aside again like worn-out clothes.

There is a sense in which psychoanalysis, considered broadly, and not in the limiting terms of a series of "treatments" of a particular person by a particular analyst, has restored to modern society certain elements—elements of "method"—of the religious life, but is entirely lacking in what may be called religious philosophy, or simply philosophy. Freud was a pioneer and an iconoclast. His intellect was pitiless, his weapons almost brutal. He was uncompromising in his analysis of the effects of religion as commonly practiced on the human psyche. Jung is broader, more "catholic," one may say; he gives no offence to the religious-minded, nor has he need to, since the idols have been pretty well broken. For Jung, there is indeed a "man" who has a life to live, who by "individuation" may find "the God within." Among his patients over thirty-five, he says, "there has not been one whose problem in the last resort was not that of finding a religious outlook on life." *Time* refers to the difference between Freud and Jung:

> Jungians often say that after a patient has been cured of a neurosis in Freudian analysis, his "soul has been sterilized." Says Jung: "The neurosis contains the soul of the sick person, or at least a considerable part of it, and if the neurosis could be taken out like a decayed tooth, in the rationalistic way, then the patient would have gained nothing and lost something very important, much as a thinker who loses his doubt of the truth of his conclusions, or a moral man who loses his temptations. . . The individual [must] choose his own way and with conscious moral decision."

There is a limit, however, to what psychotherapy can do for either the sick individual or the sick society. Freud, suppose we say, broke through the barriers of orthodox religion in respect to psychological matters. Jung's role was more that of a mediator, not a philosopher—not, that is, in the sense of a philosophical teacher. By what light must the individual "choose his own way with conscious moral decision"? Jung seems to avoid this question. In fact, he is pleased to find that Catholic Christians rarely seem in need of "individuation" since they enjoy the benefit of both faith and rite—"with all its magic effects." Jung leaves questions of philosophical truth alone—if a man's beliefs operate as "psychological truth," this is enough for him.

But we are not here concerned with attempting any sort of final assessment of either Freud or Jung. The point of our discussion is that the depth psychologists, all of them, have opened the way to free investigation of the nature of man, and more and more, contemporary psychotherapists are themselves feeling the need for philosophy, for principles to take the place of the dying religions of the world. More and more, they incline to the view, however it be expressed, that genuine philosophy is a sense of meaning around which a man can organize his life without fear that it will crumble away in a crisis, or withdraw from the light of reason and the highest human ideals.

REVIEW
A SURPRISING PHILOSOPHER

THE JOURNAL OF PHILOSOPHY for Dec. 9, 1954, contains an unusual symposium entitled "Psychical Research and Philosophy." The contributors are Dr. J. B. Rhine, of ESP fame and contention, and C. J. Ducasse, professor of philosophy at Brown University and the American Philosophical Association's choice for the 1949 Paul Carus Lectureship. Dr. Ducasse's Carus lectures, published in a 500-page-volume entitled *Nature, Mind and Death*, have been previously discussed in MANAS, and it is no surprise to find that Ducasse is one of the few modern philosophers who is willing, ready and able to wrestle with the implications of Rhine's work in telepathy, clairvoyance, etc. Strange as it may seem, professors of philosophy often have as many prejudices as divines and scientists when it comes to the challenge of an entirely new line of "metaphysical" inquiry; and they, too, grow comfortably secure among the referents of thought developed in the days of their formal training, frequently showing disinclination to revise or alter old ideas.

Dr. Ducasse's *Journal of Philosophy* article begins with an unanswerable argument as to why the subject of "psychic phenomena" demands the philosopher's attention. In this paper, "The Philosophical Importance of 'Psychic Phenomena'," Ducasse writes:

> The contention implicit in the paper's title is only that the many reports of phenomena of the kinds in view are philosophically important no matter whether the phenomena really occurred as reported, or not.
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> If they did *not* so occur, then the specificity and numerousness of the reports, and the fact that some of the witnesses, and some of the persons who accepted their reports, have been people of high intelligence and integrity, is exceedingly interesting from the standpoint of the psychology of perception, of delusion, illusion or hallucination, of credulity and credibility, and of testimony. Whereas, if some of the phenomena *did* really occur as reported, they are equally important from the standpoint then of the psychology of *in*credulity and *in*credibility—or, more comprehensively, of orthodox adverse prejudice, such as widely exists among persons having the modern western educated outlook towards reports of psychic phenomena. In this connection, a recent book, *The Nature of Prejudice*, by the Harvard psychologist, Prof. G. W. Allport, is not only good reading, but can be also very salutary reading if the insight one gains from it into the determinants of prejudice does not cause one to suppose oneself *eo ipso* free from this malady.
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> But if some of the phenomena *did* really occur as reported, then there is another reason why they are of great philosophical and scientific importance. It is that those phenomena sharply clash with, and therefore call for revision of, certain tacit assumptions.

For these reasons, Ducasse argues, "philosophers ought to take a hand in devising the needed new conceptual framework, as they did when, in the 17th century, a similar need resulted from the new facts which were then being discovered." Dr. Ducasse leaves no doubt that he has been convinced that Rhine's discoveries really *are* discoveries and that Rhine merits high regard in the fields of philosophy and psychology for his indefatigable efforts to break down prejudices against parapsychological hypotheses.

Some readers of the *Journal of Philosophy* were doubtless startled by the further suggestion that phenomena not presently susceptible to laboratory investigation *also* need thorough philosophical analysis—even such reported phenomena as those of levitation. Ducasse raises this subject, in part, because he wishes to explore the negative biases which often preclude a fair hearing for demonstration concerning such outlandish, "scientifically impossible" happenings. After discussing the report on levitation of Sir William Crookes, an eminent chemist and physicist of the last century, and citing other reputable works which accept the reality of levitation phenomena, Ducasse reveals how the scholarly mind must struggle in order to free reason from bias. He writes:

Now, do I believe that these various levitations really occurred as reported? This, of course, is a merely biographical question and as such unimportant. Nevertheless, I shall answer it by confessing to a slight case of dissociated personality! My habit-begotten and habit-bound, adversely prejudiced, conservatively practical self finds levitation as hard to believe as probably does any reader of the preceding citations. On the other hand, my rational, philosophically open-minded, scientifically inquisitive self notices several things.

One is that the experimental demonstrations of telekinesis by statistical treatment of long series of carefully controlled and recorded dice-castings, made in Rhine's Laboratory and elsewhere, immediately decrease the antecedent improbability of levitation.

Thus, the philosophically open-minded, critically rational part of the dissociated personality to which I have confessed finds, as standing in the way of acceptance of the clear cut testimony quoted, little else than the naive tacit assumption that if the knowledge possessed by physicists as of December 1954 cannot explain levitation, then levitation is impossible!

Returning to the closing sections of Ducasse's *Nature, Mind and Death,* we find further evidence that the Brown University professor is determined to give every metaphysical concept its full due in the light of reason. There, for instance, under the heading of "Some Possible Forms of Survival," Ducasse establishes the crucial importance of the "rebirth hypothesis." He finds reincarnation not only credible, but also so impressively recommended by logic as to merit a case in its favor on the grounds of probability. His conclusion, like that of W. Macneile Dixon and David Hume, is that, of all theories of immortality, reincarnation is the only one, as Hume wrote, "to which philosophy can hearken." Ducasse disposes of typical objections:

The hypothesis of survival as rebirth (whether immediate or delayed) in a material world (whether the earth or some other planet) is of course not novel. It has been variously called reincarnation, transmigration, metempsychosis, or palingenesis; and, as W. R. Alger declares, "No other doctrine has exerted so extensive, controlling, and permanent an influence upon mankind as that of the metempsychosis—the notion that when the soul leaves the body it is born anew in another body, its rank, character, circumstances, and experience in each successive existence depending on its qualities, deeds, and attainments in its preceding lives."

This conception of survival is the most concrete. Because what it supposes is so like the life we know, it can be imagined most clearly. Not only has it had wide popular acceptance, but it has also commended itself to some of the most eminent thinkers not only in the East but also in the West.

In more recent times, David Hume, although not himself professing it, asserts that it is the only conception of survival that philosophy can hearken to. Schopenhauer's contention that death of the body is not death of the will and that so long as the will-to-live persists it will gain bodily objectification, amounts to acceptance of the idea of rebirth. McTaggart regards earthly rebirth as "the most probable form of the doctrine of immortality."

The hypothesis of survival as rebirth immediately brings up the objection that we have no recollection of having lived before. But, as we have already several times had occasion to remark, if absence of memory of having existed at a certain time proved that we did not exist during the first few years of the life of our present body, nor on most of the days since then, for we have no memories whatever of the great majority of them, nor of those first few years, lack of memory of lives earlier than our present one is therefore no evidence at all that we did not live before.

Moreover, there is occasional testimony of recollection of a previous life, where the recollection is quite circumstantial and even alleged to have been verified.

A man's individuality, as we have here defined it, would be what remains of a man after not only here defined it, would be what remains of a man after not only the death of his body but also after the disintegration of his lifetime-acquired "personal" mind, whether at bodily death or at some longer or shorter time thereafter. On the other hand, although his "individuality" would not itself be a personal mind, it would be an intrinsic and indeed the basic constinlent of what his *total* mind is at any time. Out of the union of this basic or seminal constituent with a living body there would gradually develop a personal mind, whose particular nature would be the resultant on the one hand of the experiences due to the circumstances of that body, and on the other, of

> the core of aptitudes and tendencies therein embodied.
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> Each of us that is old and mature enough to view the course of his life in perspective can see that again and again his aptitudes, his habits, his tastes or interests, his virtues or his vices—in short, what he was at a given time—brought about, not by plan but automatically, changes in his material or social circumstances, in his associates, in his opportunities and so on; and that these changes in turn, quite as much as those due to purely external causes, contributed to shape for the better or the worse what he then became. This, which is observable within one life, could occur equally naturally as between the present and the subsequent bodied lives of a continuous though gradually changing self.

It seems that Dr. Ducasse has a talent for being in on the ground floor when new dimensions of philosophy receive serious attention. It is surprising enough that Dr. Rhine was invited to give his lecture to the American Philosophical Association, but still more surprising to find Ducasse willing to push the investigation even further, while stepping neatly over the prejudices against metaphysics which have so long obtained in academic circles. Ducasse's explorations of the idea of reincarnation in 1949, likewise, marked the first time, to the knowledge of MANAS editors, that such a discussion ever occurred under the auspices of the American Philosophical Association. John McTaggart, G. Lowes Dickinson, and W. Macneile Dixon defended reincarnation philosophy in England a few years ago, but, until now, American men of letters have revealed no interest in the idea. We of MANAS, partly due to our own penchant for attempting to philosophize about rebirth in the Socratic manner, will look forward with considerable interest to whatever further Dr. Ducasse may have to say on this and related subjects.

COMMENTARY
THE PATH OF THE PSYCHOLOGISTS

WISHING to refresh our memory on the contents of Freud's *The Future of an Illusion*, we turned to the article on Freud in the latest edition of the *Encyclopædia Britannica*, only to find that this book is not even mentioned! This recalled the statement in the Letter from England of two weeks ago, that when Freud's critical study of religion first appeared, nobody in England reviewed it!

There has certainly been a conspiracy of silence against all searching examinations of religious orthodoxy, and since Freud was convinced that the long-term effect of belief in a personal God or Heavenly Father was to unman the believer, one can easily see why Freud was for so long ignored in polite society.

Our point, however, is that anyone who seriously engages in a study of the mind and the emotions is bound to get around to a serious study of religion. Freud's judgment of religion was largely negative—the significant thing is that he had to take a position on the subject. Jung, first Freud's colleague and disciple, later his critic and rival, was also attracted to religion, but in a different mood. Jung's first book of importance, *Psychology of the Unconscious*, is an exhaustive exploration of the symbolism of ancient religion—Greek, Hindu, American Indian, Hebrew—hardly a faith is omitted. This is an interest which appears in practically all Jung's works, whether it be a study of Chinese mysticism or an analysis of the occult meaning of medieva1 alchemy.

More than one observer has recognized that a distinctive difference between Eastern and Westem psychology lies in the fact that Western studies are primarily concerned with examination of mental states, whereas Eastern psychology is primarily moral, involving ethical concepts in connection with psychological studies. It now appears possible that, in the perspective of centuries, the role of psychoanalysis will be to aid in restoring to Western psychology the element of ethical analysis.

It seems certain that academic psychology (except for ESP research) can never make this contribution unhelped by the workers in clinics and mental hospitals. Academic psychology, except for its forays into advertising, personnel management, and the like, has had very little direct contact with human beings and their immediate needs, whereas men who are both psychologists and doctors are bound to be impressed by the necessity for *workable* theories in the treatment of the sick. It was inevitable that men who try to help patients suffering from mental disorders should recognize the ravages of ethical malnutrition, and should discover the root of much emotional confusion in the effects of dogmatic religious belief. It is the search for the causes of psychic illness which has brought the dramatic advances in psychotherapy.

That search still proceeds, its conclusions undergoing continuing refinements, and today, as our, its conclusions undergoing continuing refinements, and today, as our lead article notes, the pioneers of psychotherapy are still pursuing the meaning of the great religions of the world, as the key to the questions they want answered. Only, today, they search far more as philosophers than as psychologists—which makes them, in our opinion, far better psychologists.

CHILDREN
. . . and Ourselves

A GOOD many people—the present writer included—have long wondered what Emerson really had in mind when he wrote that "a foolish consistency is the hobgoblin of little minds" and that "with consistency a great soul has simply nothing to do." Emerson probably thought his sentiment in this regard of importance in relation to education, and so, apparently, does Robert Ulich of Harvard, who selects Emerson's passages on consistency in his recently published *Three Thousand Years of Educational Wisdom.*

From the standpoint of the parent or educator, certainly, consistency about many things is crucial, for a child's trust in his mother, father, or instructor is largely built upon the fact that he will not suddenly fly off the handle and become something different from what he was the day before, develop a new criterion of justice or goodness, etc. What, then, did Emerson mean, and what bearing may it have on teaching?

First of all, it is reasonable to approach the investigation by surmising that this is an occasion when an author is "trying to say" something, rather than saying it concisely and accurately. For one is struck not only with the feeling that there is profundity in the statement; the intellect also informs us at the same time that, taken at face value, the words used are absurd. The "littlest" minds are those unable to carry over conceptions from one day to another, and the *capacity* to be consistent stands as the distinguishing feature of man, setting him apart from all others. On the other hand, the "greatest" minds are those willing to concede their own errors—even to children and pupils, and they never prefer the *appearance* of consistency to recognition of a truth somehow missed before.

Perhaps Emerson had chiefly in mind this "appearance" of consistency in his criticism. Certainly we are justified in suggesting this by another passage in the same essay: "I hope in these days we have heard the last of conformity and consistency. Let us affront and reprimand the smooth mediocrity and squalid contentment of the times, and hurl in the face of custom and trade and office, the fact which is the upshot of all history, that there is a great responsible Thinker and Actor working whenever a man works; that a true man belongs to no other time or place, but is the centre of things."

Later, Emerson, who seems in this essay to be trying to transcend his own familiar patterns of rational thought—very consistent patterns—speaks of "the magnetism of all original action." Apparently, it must have seemed to him that the noblest of philosophies and the best of virtues could at times restrict a man's vision—were he too satisfied with them and with his "logical" consistency in adopting their standards.

And this must be true, if man's greatness lies in the creativity of his own mind; from time to time some important reversal of value standards will take place, and must take place, if his growth of understanding is to proceed. All philosophical or religious conclusions will be recognized to embody certain paradoxes, and to be expressed in terms of metaphysics and symbolic metaphor precisely because there is so much about them which is still paradoxical. In other words, the man who is self-satisfied with a formal and easily observable level of consistency is apt to have his thoughts rooted at that level and never let them peep beyond; he will not see the importance and grandeur of further problems waiting to be solved, since he nurses the blind belief that they are solved already, and that his ability to manipulate a closed-system logic adequately demonstrates the fact. The man whose consistency is "foolish" in this way doesn't really ask questions at all—thus is never prepared to learn anything new. This, surely, is the sort of consistency Emerson had in mind when he wrote that "with consistency a great soul has simply nothing to do. He may as well concern himself with his shadow on the wall." To be *concerned* about how consistent one appears, destroys perspective, and the parent who takes too much pride in the measured tread of his own thought, forever down the same pathways, may become both a poor instructor of his children and a poor example. That *conformity* is Emerson's real

villain there can be little doubt, just as there is no doubt that he dislikes the word "consistency" precisely because smug conformity often thus likes to name itself. Of conformity, he says:

> A man must consider what a blind-man's-buff is this game of conformity. If I know your sect I anticipate your argument. I hear a preacher announce for his text and topic the expediency of one of the institutions of his church. Do I not know beforehand that not possibly can he say a new and spontaneous word? Do I not know that with all this ostentation of examining the grounds of the institution he will do no such thing? Do I not know that he is pledged to himself not to look but at one side, the permitted side, not as a man, but as a parish minister? He is a retained attorney, and these airs of the bench are the emptiest affection. Well, most men have bound their eyes with one or another handkerchief, and attached themselves to some one of these communities of opinion. This conformity makes them not false in a few particulars, authors of a few lies, but false in all particulars. Their every truth is not quite true. Their two is not the real two, their four not the real four; so that every word they say chagrins us and we know not where to begin to set them right. Meantime nature is not slow to equip us in the prison-uniform of the party to which we adhere. We come to wear one cut of face and figure, and acquire by degrees the gentlest asinine expression.

But there is more to the subject than this, for there are clearly two kinds of consistency, a fact Emerson attests in the following paragraph, even while, apparently out of pique at its over-emphasis in his day, he will not allow the word "consistency" to be used:

> I suppose no man can violate his nature. All the sallies of his will are rounded in by the law of his being, as the inequalities of Andes and Himmaleh are insignificant in the curve of the sphere. Nor does it matter how you gauge and try him. A character is like an acrostic or Alexandrian stanza:—read it forward, backward or across, it spells the same thing. In this pleasing contrite woodlife which God allows me, let me record day by day my honest thought without prospect or retrospect, and, I cannot doubt, it will be found symmetrical, though I mean it not and see it not. My book should smell of pines and resound with the hum of insects. The swallow over my window should interweave that thread or straw he carries in his bill into my web also. We pass for what we are. Character teaches above our wills. Men imagine that they communicate their virtue or vice only by overt actions, and do not see that virtue or vice emit a breath every moment.
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> There will be an agreement in whatever variety of actions so they be each honest and natural in their hour. For of one will, the actions will be harmonious, however unlike they seem. These varieties are lost sight of at a little distance, at a little height of thought. One tendency unites them all. The voyage of the best ship is a zigzag line of a hundred tacks. See the line from a sufficient distance, and it strengthens itself to the average tendency. Your genuine action will explain itself and will explain your other genuine actions. Your conformity explains nothing. Act singly, and what you have already done singly will justify you now. Greatness appeals to the future. If I can be firm enough to-day to do right and scorn eyes, I must have done so much right before as to defend me now. Be it how it will, do right now. Always scorn appearances and you always may. The force of character is cumulative. All the foregone days of virtue work their health into this.

So, partly to please Emerson, let us establish a greater importance for the word *continuity* than for *consistency*. A man may well be "concerned" as to whether or not his whole past is open to his reflection, so that new insights are continually emerging, new values integrated. There are a number of psychiatric terms for those who try to forget what they are or what they have been—who cannot face themselves and therefore lose the sense of continuity. We cannot forget the past, but must, instead, assimilate it, and "consistent" efforts to do so are not to be decried, Emerson's pet emphasis to the contrary. As parents and teachers, moreover, it is necessary to be constant in our sense of justice, *consistently* placing the impartiality of justice above our own annoyances and dislikes. But this, after all, is only achieved by the adult whose sense of continuity is excellent, who reviews his own actions sufficiently to know mistakes in judgment when they are to be seen, and whose sense of continuity enables inconsistency to be joyfully embraced. The great educators in Mr. Emerson's essay, incidentally—Pythagoras, Socrates, Jesus, *et al.*—did nothing for social approval, and everything for the cause of truth. Because they lived in their particular historical times, of necessity, they appeared mightily inconsistent to those around them. Perhaps it was simply that their

own sense of continuity was considerably greater than that of their contemporaries.

In the final analysis, we should say that consistency is of great significance, but that its appearance is not; further, that the best thing of all to be consistent about is a willingness to change one's course when error is perceived. The sense of continuity possessed by truly great men seems no more and no less than this.

FRONTIERS

Scientific Self-Criticism

SINCE a large part of the "growing-up" process of Western civilization is involved in the attitude toward what men call, sometimes a bit grandly, "Science," there is value in noticing from time to time what the scientists have to say about themselves. Practically every conceivable viewpoint on science may be found among the expressions of scientific writers. A few years ago, the professional scientist who addressed himself to some important subject was likely to give his hearers the impression that since he, as scientist, was about to expose the subject to public scrutiny, the meeting might now come to order, making itself ready to attend to the Voice of Authority. If such a thing as a "last word" existed, it was now to be heard.

No question about it, a certain dignity may and often does attach to scientific discourse. The man who speaks for science speaks from the rostrum of a great tradition. His facts must be facts, his supposition plainly marked. Every Elisha of present-day science wears the robes and bears the responsibility of the greater Elijahs of the past. He must be precise, cautious, never extravagant. He must be worthy of the trust he has undertaken to fulfill.

On the shoulders of rare and unusual men, these responsibilities rest but lightly, since they would observe them anyhow, without needing the insistence of institutional pressure. It is the lesser lights of the scientific fraternity who acquire a manner marked by rules for behaving "like a scientist," and who impart to the public that slightly sacerdotal mood which it has come to expect of scientific pronouncements.

Fortunately, the scientists, like the educators, are much given to self-examination. It is characteristic of human excellence that the higher its degree, the less it is subject to fear of criticism. It follows, then, that if science does indeed embody Western civilization's most valid claim to progress, it will be the scientists themselves who are most eager to examine that claim with a critical eye. This means, as we read the record, that as scientists begin to think it more important for them to become wise human beings than expert practitioners of their specialties, the true harvest of the scientific movement is finally ripening.

Today, there is clear evidence of a tendency among distinguished scientific workers to abandon the once popular "escalator" theory of scientific progress. The very great, of course, were never taken in by it, being far too preoccupied by the evolutions of their own thinking to interest themselves in a new theory of "salvation," but the publicizers of science were largely successful in convincing the lay public that science would eventually bring about the Millennium. This is no longer believed by very many people. It stopped being believed in Europe, according to Ortega y Gasset, at least thirty years ago, but in the United States, a peculiarly science-minded country, the myth held its followers until a much later date. That it no longer grips the imagination of Americans is no doubt due to the anxieties attending the development of nuclear weapons, and the realization, hardly to be escaped, that science is at least as potent for evil as for good.

The West, in short, is wide open for a new theory of institutional salvation. The chief hope of the present is that Western leaders have the maturity to refuse to provide it.

Meanwhile, the scientists are themselves writing the best commentaries on the limitations of science. In *Science* for Dec. 24, for example, Hugh L. Dryden, of the National Advisory Committee for Aeronautics, Washington, D.C., had this to say:

> . . . science is a partial view of life, in many respects a narrow view. There is often no more naïve or gullible individual than the scientist outside his own laboratory and discipline. He tends to develop a myopic vision, and to the layman his interest seems to be in details remote from what most people consider the real interests and concerns of life….

> The cold sharp tools of science have not been effective in penetrating the area of human emotions, purposes, and values. "It is the Nemesis of the struggle for exactitude by the man of science," remarked the biologist, H. S. Jennings, that leads him to present a mutilated, merely fractional account of the world as a true and complete picture. "You can no more analyze these imponderables by scientific methods," says Eddington, "than you can extract the square root of a sonnet." Science advances by purposely taking a limited and incomplete view of complex events.

It would be an incredible folly, however, for men who are not scientists, or who lack appreciation of what it means to practice one of the sciences, to quote a "confession" of this sort as the means of disposing of the importance of scientists as leaders of Western culture. Where else among the cultural groupings in American life will you find such candid self-analysis? Has the business community, with much less ground for vanity, ever permitted, say, a Chamber of Commerce spokesman to make an honest declaration of this sort, cutting the acquisitive activities of commerce and industry down to size? Mr. Dryden continues:

> Science is not only a partial view of life but it is amoral. There is no moral significance inherent in high explosives, chlorine gas, or nuclear energy. Without high explosives we would not have the plentiful supply of minerals that are the foundation of our civilization. The same high explosives can be used to destroy buildings, bridges, and human beings. Chlorine gas is the basis of common bleaching agents, which make possible your white shirts. It is also a potential tool of chemical warfare. An H-bomb, releasing the explosive force of millions of tons of TNT along with searing heat and deadly gamma rays and neutrons, can destroy a whole city. . . .
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> The knowledge obtained in the biological and medical sciences is equally amoral in character. The accomplishments of psychology and psychiatry may be applied for beneficent, selfish, or evil purposes. Modern advertising, and other propaganda, communist brain-washing—all utilize knowledge of human behavior. The knowledge of the causes of disease assists in its cure or in its spread to others. Scientific knowledge is power, but it is power to be used for good or evi1 as men choose.
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> I think that this amoral character of science is the source of unrest of the average man with regard to the scientist and his science. What kind of men and women will control the use to which the great power of science will be put? Will they be creatures of intelligence and understanding? Will they not imagine the consequences of the waging of war with the new A- and H-weapons, and will they not in horror refrain from their use?

One explanation for discussions of this sort—which are fairly common, these days—is that the very nature of scientific inquiry resists thorough institutionalization. The objective of the practice of science is discovery, rather than the support and maintenance of any particular scientific status quo, so that an actual practicing scientist will find it unnatural to think of "science" in institutional terms. He often feels free, therefore, to write about it as an individual, without much regard for the "prestige" of science.

One large area of scientific activity, however, is already overshadowed by the institutional psychology of national defense and security. J. A. Gengerelli, UCLA psychologist, who deplores this trend in the *Scientific Monthly* for January, is not the first man to comment on the corrupting influence of the millions of dollars available for military research. Ever since the role in national defense of the theoretical physicist has become of recognized importance, the sloganizing common to politics has been infecting scientific enterprises. Dr. Gengerelli writes:

> Now, as everyone knows, there is a great deal of research money floating about in this country. The Congress has created the National Science Foundation to encourage training in, and the creation of, fundamental research. Nevertheless, the suspicion remains that the very strength of our motivation in this direction and the opulence with which it is implemented are in themselves obstacles to successful realization. Even behind the numerous exhortations to "do fundamental research," one often thinks he hears the unspoken thought "Hurry, so we can get some new fundamental knowledge to put to practical uses." There is, consequently, or so it seems to me, a great hurry and bustle, a rushing back and forth to scientific conferences, a great plethora of $50,000 grants for $100 ideas. The thing to do is to cook up a

> plausible, well-rounded project, garnish with fine-sounding programmatic introduction, and seek a generous budget that utilizes the most elaborate equipment available as well as a goodly number of graduate student research assistants. Perhaps I am becoming somewhat bilious with advancing age, but I catch myself noting that the stature of a scientist is measured by the size of his research grants. . . .
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> . . . we seem to be slipping into a national habit of putting our best efforts into making requests for research grants, administering them, and, above all, thinking up reasons for a renewed and much expanded grant next year. The thinking, the silent brooding, the work of the imagination, the probing and going back to first principles, are relegated to a minor role and are pushed into the background. . . . We have . . . such beautiful gadgets, so marvelously precise, and such monstrously clever mathematical and statistical devices that even the most modest talent can make motions like a genuine creative scientist. I am suggesting, in fact, that scientific, technical, and financial facilities are such in this country as to encourage a great number of mediocrities to go into science and to seduce even those with creative talent and imagination to a mistaken view of the scientific enterprise. . . . To dream, to brood, to go back always to first principles, to live with a problem not only during laboratory hours, but at odd times, these are the necessary, though naturally not sufficient conditions for achievement at the highest levels of pure science. These are characteristics of great artists, poets, and musicians as well as of great scientists. . . . We must imbue students of science with this style of life, so to speak, and impart to them the feeling that it is the *idea*, not the gadget, that has the priority in science. True, it happens often enough that an idea cannot be tested unless a suitable gadget is at hand, but, then, if imagination and ideas abound it is easy enough to make gadgets.

Dr. Gengerelli mourns the loss of vision in the practice of the sciences—and the quality of vision, he finds, is not uniquely scientific, but belongs also to the poet, the artist, the musician. This is a far cry from the high confidence of yesteryears in the Scientific Method as the highway to fact, truth, and total understanding! Quite obviously, the idea of wisdom has replaced the somewhat mechanistic theory of knowledge that bred in past generations of scientific enthusiasts a kind of supercilious contempt for all human undertakings which could not be forced into the mould of familiar laboratory or field research procedures.

Also to be noted is the advent of the time-server in the ranks of scientists—and the conventionalization or secularization of the high purposes of scientific inquiry. These developments are bound to be felt more and more by the popular intuition, with corresponding loss of respect for scientific enterprise. In historical terms, this means that we may soon regard as a spent force the great scientific movement which for a century or two gave every evidence of replacing religion in the scheme of human hopes. It was the institutionalization and secularization of religion which, in time, left the clerical profession (with occasional exceptions) to the time-servers and the conformers, and the same process now seems to be overtaking science.

There is this, however, to be said: From the days of Galileo and Newton to the modern epoch symbolized by the equally great figure of Albert Einstein, the profession of science has been the refuge of authentic human greatness, and often its freest channel of expression. The new maturity of the present instructs us only that we have made a natural mistake in assuming that the greatness we admire in such men is *essentially scientific.* For a time, perhaps, while the qualities of greatness received their clearest definition in scientific terms, the mistake was excusable, and its consequences tolerable, but we are now obliged by the terrible technological offspring of this delusion to recognize and correct our mistake. To say that greatness is "scientific" is the fetishism of the twentieth century.

What, then, of contemporary scientists? First of all, they have the honor of having been attracted to the movement which for the past three hundred years has been the spearhead of human progress. During this period, science has stood for the ideal in the pursuit of knowledge; it has made unparalleled contributions to the clarity and validity of modern rationalism; its only defects have been the limitation it placed upon notions of

the "real" in human experience, and the deliberate disregard—in reaction to theological excesses—of what we call moral issues.

The disasters we now attribute to science ought rather to be assigned to misconceptions of science, rather than to science itself. To the degree that scientists along with their admirers have participated in those misconceptions, they may be held responsible for the results, but only in the measure that we hold any leaders responsible for the errors of the entire age to which both we and they belong.

If, after the revaluation of the scientific movement, we can still retain the authentic contributions of the scientific spirit—its impersonality, its devotion to truth, its critical alertness and its wariness against plausible self-deception—we may be able to avoid another descent into irrationalism comparable to that which produced the Dark Ages of European history.