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PRAGMATISM

By

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WITH A PREFACE BY DR. F.C.S. SCHILLER

PHILOSOPHIES ANCIENT AND MODERN

PRAGMATISM

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PREFACE

Mr. Murray's youthful modesty insists that his study of Pragmatism needs a sponsor; this is not at all my own opinion, but I may take the opportunity of pointing out how singularly qualified he is to give a good account of it.

In the first place he is young, and youth is an almost indispensable qualification for the appreciation of novelty; for the mind works more and more stiffly as it grows older, and becomes less and less capable of absorbing what is new. Hence, if our 'great authorities' lived for ever, they would become complete *Struldbrugs*. This is the justification of death from the standpoint of social progress. And as there is no subject in which *Struldbruggery* is more rampant than in philosophy, a youthful and nimble mind is here particularly needed. It has given Mr. Murray an eye also to the varieties of Pragmatism and to their connections.

Secondly, Mr. Murray has (like myself) enjoyed the advantage of a severely intellectualistic training in the classical philosophy of Oxford University, and in its premier college, Balliol. The aim of this training is to instil into the best minds the country produces an adamantine conviction that philosophy has made no progress since Aristotle. It costs about £50,000 a year, but on the whole it is singularly successful. Its effect upon capable minds possessed of common sense is to produce that contempt for pure intellect which distinguishes the British nation from all others, and ensures the practical success of administrators selected by an examination so gloriously irrelevant to their future duties that, since the lamentable demise of the Chinese system, it may boast to be the most antiquated in the world. In minds, however, which are more prone to theorizing, but at the same time clear-headed, this training produces a keenness of insight into the defects of intellectualism and a perception of the *intellectual necessity* of Pragmatism which can probably be reached in no other way. Mr. Murray, therefore, is quite right in emphasizing, above all, the services of Pragmatism as a rigorously critical theory of knowledge, and in refuting the amiable delusion of many pedants that Pragmatism is merely an emotional revolt against the rigors of Logic. It is essentially a reform of Logic, which protests against a Logic that has become so formal as to abstract from meaning altogether.

Thirdly, an elementary introduction to Pragmatism was greatly needed, less because the subject is inherently difficult than because it has become so deeply involved in philosophic controversy. Intrinsically it should be as easy to make philosophy intelligible as any other subject. The exposition of a truth is difficult only to those who have not understood it, or do not desire to reveal it. But British philosophy had long become almost as open as German to the (German) gibe that 'philosophy is nothing but the systematic misuse of a terminology invented expressly for this purpose,' and Pragmatism, too, could obtain a hearing only by showing that it could parley with its foes in the technical language of Kant and Hegel.

Hence it had no leisure to compose a fitting introduction to itself for students of philosophy. William James's *Pragmatism*, great as it is as a work of genius, brilliant as it is as a contribution to literature, was intended mainly for the man in the street. It is so lacking in the familiar philosophic catchwords that it may be doubted whether any professor has quite understood it. And moreover, it was written some years ago, and no longer covers tho whole ground. The other writings of the pragmatists have all been too controversial and technical.

The critics of Pragmatism have produced only caricatures so gross as to be unrecognizable, and so obscure as to be unintelligible. Mr. Murray's little book alone may claim to be (within its limits) a complete survey of the field, simply worded, and yet not unmindful of due technicality. It is also up to date, though in dealing with so progressive a subject it is impossible to say how long it is destined to remain so.

F.C.S. SCHILLER.

CHAPTER I

THE GENESIS OF PRAGMATISM

There is a curious impression to-day in the world of thought that Pragmatism is the most audacious of philosophic novelties, the most anarchical transvaluation of all respectable traditions. Sometimes it is pictured as an insurgence of emotion against logic, sometimes as an assault of theology upon the integrity of Pure Reason. One day it is described as the reckless theorizing of dilettanti whose knowledge of philosophy is too superficial to require refutation, the next as a transatlantic importation of the debasing slang of the Wild West. Abroad it is frequently denounced as an outbreak of the sordid commercialism of the Anglo-Saxon mind.

All these ideas are mistaken. Pragmatism is neither a revolt against philosophy nor a revolution in philosophy, except in so far as it is an important evolution of philosophy. It is a collective name for the most modern solution of puzzles which have impeded philosophical progress from time immemorial, and it has arisen naturally in the course of philosophical reflection. It answers the big problems which are as familiar to the scientist and the theologian as to the metaphysician and epistemologist, and which are both intelligible and interesting to common sense.

The following questions stand out: (1) Can the possibility of knowledge be maintained against Hume and other sceptics? Certainly, if it can be shown that 'The New Psychology' has antiquated the analysis of mind which Hume assumed and 'British Associationism' respectfully continued to uphold. (2) Seeing that inclination and volition indisputably play a part in the *acceptance* of all beliefs, scientific and religious, what is the logical significance of this fact? This yields the problem 'The Will to Believe,' and more generally of 'the place of Will in cognition.' (3) Is there no criterion by which the divergent claims of rival creeds and philosophies—to be possessed of unconditional truth—can be scientifically tested? The sceptic's sneer, that the shifting systems of philosophy illustrate only the changing fashions of a great illusion about man's capacity for truth, plunges dogmatism into a 'Dilemma,' from which it can emerge only by finding a way of discriminating a 'truth' from an 'error,' and so solving the 'problem of Truth and Error.' The weird verbalism of the traditional Logic suggests a problem which strikes deeper even than the question, 'What *do* you mean by truth?' viz.: 'Do you mean anything?' and so the 'problem of Meaning' is propounded by the failure of Formal Logic. Is Logic not concerned at all with *meaning*, is it only juggling with empty forms of words? Lastly, if from all this there springs up a conviction of 'The Bankruptcy of Intellectualism,' the question suggests itself whether the relation between abstract thinking and concrete experience, between 'Thought' and 'Life,' has been rightly grasped. Is life worth living only for the sake of philosophic contemplation, or is thinking only worth doing to aid us in the struggle for life? Are 'theory' and 'practice' two separate kingdoms with rigid frontiers, strictly guarded, or does it appear that theories which cannot be applied have, in the end, neither worth, nor truth, nor even meaning?

It is plain from this catalogue of inquiries that Pragmatism makes no abrupt breach in tradition. It is not the *pétroleuse* of philosophy. It does not wipe out the history of speculation in order to announce a millennium of new ideas; it claims, on the contrary, to be the culmination and *dénoûment* of that history. It cannot rightly be represented as trying either to sell new lamps for old, or to jerry-build a new metaphysical system on the ruins of all previous achievements. Its real task is singularly modest. It aims merely at instructing system-builders in the elementary laws which condition the stability of such structures and conduce to their conservation.

It is therefore a grave mistake to regard it as a parochial eccentricity, as a specific Americanism. Nor is it the product of the misplaced ingenuity of individual paradox-mongers. It has come into being by the *convergence* of distinct lines of thought pursued in different countries by different thinkers.

1. One of the most interesting of these has originated in the scientific world. The immense growth of scientific knowledge during the last century was bound to react on human conceptions of scientific procedure. The enormous number of new facts brought to light by manipulating hypotheses could not but modify our view of scientific law. Laws no longer seem to scientists the immutable foundations of an eternal order, but are inevitably treated as man-made formulae for grouping and predicting the events which verify them. The labours of physicists like Mach, Duhem, and Ostwald, point to alternative formulations of new hypotheses for the best established laws. The physics of Newton are no longer final, and the notion of 'energy' is a dangerous rival to the older conception of 'matter.' It is, of course, indifferent to the philosopher whether the new physics are successful in superseding the old or not. What it concerns him to note is that dogmatic confidence in the finality of scientific laws has given place to a belief that our "laws" are only working formulae for scientific purposes, and that no science can truly boast of having read off the mind of the Deity. As Sir J.J. Thomson neatly puts it, a scientific theory, for the enlightened modern scientist, is a 'policy and not a creed.' Science has become content to be only 'a conceptual shorthand,' provided that its message be humanly intelligible. It no longer claims truth because abstractly and absolutely it 'corresponds with Nature,' but because it yields a convenient means of mastering the flux of events.

Even mathematics, long the pattern of absolute knowledge, has not escaped the stigma of relativity. 'Metageometries' have been invented by Riemann and Lobatschewski as rivals to the assumptions of Euclid, and the brilliant writings of Poincaré have explained the human devices on which mathematical concepts rest. Euclidean geometry is reduced to a useful interpretation of the data of experience; it is not theoretically the only one. Its superior validity is dependent upon its use when applied to the physical world. Even mathematics, therefore, lend themselves to the philosophic inference drawn by Henri Bergson and others, that all conceptual systems of the human mind have a merely conditional truth, depending on the circumstances of their application.

2. Another fountain-head of Pragmatic philosophy has been Darwinism. Indeed, the Pragmatic is the only philosophizing which has completely assimilated Evolution. The insight into the real fluidity of natural species ought long ago to have toned down the artificial rigidity of logical classifications. To know reality man can no longer rest in a 'timeless' contemplation of a static system; he must expand his thoughts so as to cope with a perpetually changing process. Since the world changes, his 'truths' must change to fit it. He is faced with the necessity of a continuous reconstruction of beliefs. This influence of Darwin has inspired the logical theories of Professor Dewey and the 'Chicago School' of Pragmatists. Thought in their writings is essentially the instrument of this readjustment. Its function is to effect the necessary changes in beliefs as economically and usefully as possible. It is an evolving process which keeps pace with the evolution of reality and the changing situations of mortal life.

3. It is not, however, entirely the reaction of science upon philosophy which has given birth to Pragmatism. Philosophy itself has been rent by internal convulsions. These have been emphasized in the work of Dr. F.C.S. Schiller, who has shown that already in the days of Plato the distinction between 'truth' and 'error' was baffling philosophy, that Plato's *Theaetetus* has failed to establish it, and that the famous dictum of Protagoras, 'Man is the measure of all things,' distinctly foreshadows the 'Pragmatic,' or, as he calls it, the 'Humanist,' solution of the difficulty.

Elsewhere Dr. Schiller has commented on the controversies raised by Hume's criticism of dogmatism. He has shown that Kant failed to answer Hume because he accepted Hume's psychology, and that no *a priori* philosophers have since been able to devise any consistent and tenable doctrine. The idealistic theories of the 'Absolute' reveal their futility by their want of application to the genuine problems of life, and by the theoretic agnosticism from which they cannot escape. Hence the need for a new Theory of Knowledge and a thorough reform of Logic.

4. At this point he joins forces with Mr. Alfred Sidgwick, who has long been urging a radical criticism of the procedures of Formal Logic, and shown the gulf between them and the processes of concrete thought. Sidgwick has demonstrated that the belief in formal truth renders Logic merely verbal, and that the actual *meaning* of assertions completely escapes it.

5. The most sensational approach to Pragmatism, however, is that from the side of religion. The Pragmatic method of deciding religious problems, which asserts the legitimacy of a 'Faith' that precedes knowledge, has always been, more or less consciously, practised by the religious. It is brilliantly advocated in the *Thoughts* of Pascal, and clearly and forcibly defended in that most remarkable essay in unprofessional philosophy, Cardinal Newman's *Grammar of Assent*. This line of reasoning, however, is most familiarly associated with the name of William James; he first illustrated the Pragmatic Method by a famous paper (for a theological audience) on *The Will to Believe,* and founded the psychological study of religious experience in his Gifford Lectures on *The Varieties of Religious Experience*.

6. This brings us to the last, and historically the most fertile, of the sources of Pragmatism, Psychology. The publication in 1890 of James's great *Principles of Psychology* opened a new era in the history of that science. More than that, it was destined in the long run to work a transformation in philosophy as a whole, by introducing into it those biological and voluntaristic principles to which he afterwards applied the generic name of Pragmatism, or philosophy of action. We must pass, then, to consider the New Psychology of William James.

CHAPTER II

THE NEW PSYCHOLOGY

Until the year 1890, when James's *Principles* were published, the psychology of Hume reigned absolutely in philosophy.[A] All empiricists accepted it enthusiastically, as the sum of philosophic wisdom; all apriorists submitted to it, even in supplementing and modifying it by 'transcendental' and metaphysical additions; in either case it remained uncontested *as psychology*, and, by propounding an utterly erroneous analysis of the mind and its experience, entangled philosophy in inextricable difficulties.

Hume had, as philosophers commonly do, set out from the practically sufficient analysis of experience which all find ready-made in language. He accepted, therefore, from common sense the belief that physical reality is composed of a multitude of separate existences that act on one another, and tried to conceive mental life strictly on the same analogy. His theory of experience, therefore, closely parallels the atomistic theory of matter. Just as the physicist explains bodies as collections of discrete particles, so Hume reduced all the contents of the mind to a number of elementary sensations. Whether the mind was reflecting on its own internal ideas, or whether it was undergoing impressions which it supposed to come from an external source, all that was really happening was a succession of detached sensations. It seemed to Hume indisputable that every distinct perception (or 'impression') was a distinct existence, and that all 'ideas' were equally distinct, though fainter, copies of impressions. Beyond impressions and ideas it was unnecessary to look. Thus to look at a chessboard was to have a number of sensations of black and white arranged in a certain order, to listen to a piece of music was to experience a

succession of loud and soft auditory sensations, to handle a stone was to receive a group of sensations of touch. To suppose that anything beyond these sensory units was ever really experienced was futile fiction. Experience was a mosaic, of which the stones were the detached sensations, and their washed-out copies, the ideas.

If this analysis of the mind were correct—and its correctness was not disputed for more than a hundred years, for were not the sensations admitted to be the ultimate analysis of all that was perceived?—the common-sense belief that knowledge revealed a world outside the thinker was, of course, erroneous. For common sense could hardly treat 'things' as merely 'sensations' artificially grouped together in space, each 'thing' being a complex of a number of sensations having relation to similar complexes. It held rather that the successive appearances of things were related in time, in such a way that they could be supposed to reveal a single object able to endure in spite of surface changes, and to manifest the identity of its sensory 'qualities.' Similarly, the succession of ideas within the mind was for it supported by the inward unity of the soul within which they arose. Moreover, Hume's analysis made havoc of all idea, of 'causation.' If every sensation was a separate being, how was it to be connected with any other in any regular or necessary connection? Two events related as 'cause' and 'effect' must be a myth.

These subversive consequences of his theory Hume did not conceal, though he did not push his mental 'atomism' to its logical extreme. When he defined material objects as 'coloured points disposed in a certain order,' he was in fact admitting space as a relating factor; when he spoke of the succession of impressions and ideas in experience, he was tacitly assuming that what was apprehended was not a bare succession of sensations, but *also* the fact that they were succeeding one another, and so allowing a sense of temporal relation. But further than this he refused to go. The idea of a continuous self was fantastic. There was nothing beneath the ideas to connect them. The notion of causal connection was equally chimerical. Each sensation was distinct and existed in its own right. It could therefore occur alone. There was nothing to link together the distinct impressions. Hence necessary connection in events could not be more than a fiction of the mind based on expectation of customary sequences; how the mind he had described as non-existent could form an expectation or observe a sequence was calmly left a mystery.

Hume, then, seemed to leave to his successors in philosophy a task of synthesis. He had tumbled the soul off her high watch-tower, but how to combine her shattered fragments again into a working unity he declined to say. He saw the sceptical implications of his analysis, but professed himself unable to suggest a remedy.

He had, however, made the embarrassments of the theory of knowledge sufficiently clear for Kant, his most important successor, to hit upon the most obvious palliative, and in the *Critique of Pure Reason* Kant set himself to patch up Hume's analysis. Experience as it came through the channels of sense, he admitted Hume had analysed correctly; it was 'a manifold,' a whirl of separate sensations. But these *per se* could not yield knowledge. They must be made to cohere, and the way to do this he had found. The mind on to which they fell was equipped with a complicated apparatus of faculties which could organize the chaotic manifold of sense and turn it into the connected world which common sense and science recognize. First it views the data of sense in the light of its own 'pure intuitions,' and, lo! they are seen to be in Space and Time; then it solidifies them with its own 'categories,' which turn them into 'substances' and 'causes' and endow them with all the attributes required to sustain that status; finally it refers them all to a Transcendental Ego, which is not, indeed, a soul, but sufficiently like one to provide something that can admire the creative synthesis of 'mind as such.'

Had Hume lived to read Kant's *Critique*, he would probably have jeered at the vain complications of Kant's transcendental machinery, and made it clear that between the primary manifold of sensation and the first constructions of the intellect there still yawns a gulf which Kant's laboured explanations nowhere bridge.

Why does the chaotic 'matter' of sensations submit itself so tamely to the forming of the mind? How can the *a priori* necessities of thought, which are the 'presuppositions' of the complexities Kant loved, operate upon so alien a stuff as the sensations are assumed to be? And, after all, was not Kant a bit premature in proclaiming the *finality* of his analysis and of his refutation of empiricism for all time? The searching question, Why should the future resemble the past? had received no answer, and so might not the mind itself, with all its categories, be susceptible to change? Was it certain that the miracle whereby the data presented to our faculties conformed to them would be a standing one? Had not Kant himself as good as admitted that our faculties might distort reality instead of making it intelligible?

The truth is that at this point Kant is open to a charge against which the assumptions he shared with Hume admit of no defence. Hume had been the first to discover that we are in the habit of trying to rationalize our sense-data by putting ideal constructions upon them, though he had abstained from sanctifying the practice by a hideous jargon of technical terminology. But this way of eking out the facts only seemed to him to *falsify* them. Truth in his view was to be reached by accepting with docility the sensations given from without. To set to work to 'imagine' connections between them, and to claim for them a higher truth, had seemed to him an outrage. What right, then, had Kant to legitimate the mind's impudence in tampering with sensations? Was not every *a priori* form an 'imagination,' and a vain one at that?

To these objections the Kantian school have never found an answer. They have simply repeated Kant's phrases about the necessary 'presuppositions' which were to be added to Hume's data. The English psychologists (the Mills, Bain, etc.) exhibited a similar fidelity. They never accepted

the *a priori*, but relied on 'the association of ideas' to build up a mind out of isolated sensations. But was this expedient really thinkable? For if all 'sensations' or qualities are separate entities, how can the addition of more 'distinct existences' of the same sort really bind them together? If in 'the cat is upon the wall,' 'upon' is a distinct entity which has to relate 'cat' and 'wall,' what is to connect 'cat' with 'upon' and 'upon' with 'wall'? The atomizing method carried to its logical extreme demands that not only 'sensations' but also 'thoughts' should be essentially disconnected, and then, of course, *no* thinking can cohere.

Psychology, then, had worked itself to a breakdown by accepting the 'sensationalistic' analysis offered by Hume, and dragged philosophy with it. Yet the escape was as easy as the egg of Columbus to the insight of genius. William James had merely to invert the problem. Instead of assuming with Hume that because some experiences seemed to attest the presence of distinct objects, all connections were illusory and all experience must ultimately consist of psychical atoms, James had merely to maintain that this separation was secondary and artificial, and that experience was initially a continuum. Once this is pointed out, the fact is obvious. The stream of experience no doubt contains what it is afterwards possible to single out as 'sensations,' but it presents them also as connected by 'relations.' Moreover, the 'sensations' or 'qualities' and their 'relations' exhibit the immediate indiscerptible unity of a fluid rather than a succession of flashes. Temporal and spatial relations with all the connections they sustain are perceived just as directly as what we come to distinguish as the 'things' in them. 'Consciousness,' James insists, 'does not appear to itself chopped up in bits,' and 'we ought to say a feeling of *and*, a feeling of *if*, a feeling of *but*, and a feeling of *by*, quite as readily as we say a feeling of *blue* or a feeling of *cold*. All things in experience naturally 'compenetrate,' to use a phrase of Bergson's; they are distinct and they are united at the same time.

The great crux in Hume is thus seen to be illusory. Immediate experience does not require 'synthesis': it calls for 'analysis.' It is not a jigsaw puzzle, to be pieced together without glue: it is a confused whole which has to be divided and set in order for clear thinking. Hume's mistake was to have started from experience *as partly analysed* by common sense, and not from the flux *as given*. His 'sensations' were the qualities already analysed out of the flux; he took these selections for the whole and neglected the other less obvious features in it—viz., the relations which floated them.

Thus the puzzle 'How do "relations" relate?' received its solution in this new account of experience. Philosophers are puzzled by this question because they confuse percepts with concepts. Percepts are *given* in relation; but concepts, being ideal dissections of the perceptual flux, are discontinuous terms which have to be related by an act of thought, because they were made for this very purpose of distinction. Thus the eye sees cats sitting upon walls, as parts of a rural landscape, and without the sharp distinctions which exist between the concepts 'cat,' 'upon,' 'wall.' These ideas were *meant* to disconnect 'the cat' in thought from the site it sat upon. Thought, then, has *made* the 'atomism' it professed to find. It has only to unmake it, and to allow the distinctions it held apart to merge again into the stream of change.

All Hume's problems, therefore, are unreal, and those of his apriorist critics are doubly removed from reality. The whole conception of philosophy as aiming at uniting disjointed data in a higher synthesis runs counter to the real movement, which aims at the analysis of a given whole. The real question about causation is not how events can be connected causally, but why are certain antecedents preferred and dissected out and entitled 'causes.' So the 'self' is not one (undiscoverable) item imagined to keep in order a host of other such items. Any given moment of a consciousness is just the mass of its 'sensations,' but these are consciously the heirs of its history and connected with a past which is remembered. No Transcendental Ego could do more to support the process of experience than is achieved by 'a stream of consciousness which carries its own past along.' Here, then, is the straight way James desiderated, a critical philosophy which goes, not 'through' the complexities of Kantism, but leaves them on one side as superfluous 'curios.'

But there remains an even more important deduction from the new psychology. Hume had been convicted of error in selecting those elements of the flux which served his purpose and neglecting the rest. But this mistake might reveal the important fact that all analysis was a choice, and inspired by volitions. A mind that analyses cannot but be *active* in handling its experience. It manipulates it to serve its ends. It emphasizes only those portions of the flux which seem to it important. In a better and fairer analysis than Hume's these features will persist. It, too, would be a product of selection, of a selection depending on its maker's preferences. As James showed, the distinction between 'dreams' and 'realities,' between 'things' and 'illusions,' results only from the differential values we attach to the parts of the flux according as they seem important or interesting to us or not. The volitional contribution is all-pervasive in our thinking. And once this volitional interference with 'pure perception' is shown to be indispensable, it must be allowed to be legitimate. Nor can this approval of our interference be restricted to selections. It must be extended to *additions*. Just as we can select factors from 'the given' to construct 'reality,' we can add hypotheses to it to make it 'intelligible.' We can claim the right of causal analysis, and assume that our dissections have laid bare the inner springs of the connection of events. Moreover, to the 'real world which our choice has built out of the chaos of 'appearances' we may hypothetically add 'infernal' and 'heavenly' regions.[B] Both are transformations of 'the given' by the will, but, like the postulate of causal series, experience *may* confirm them. Kant's *a priori* activity of the mind may thus in a sense supply an answer to Hume—but only in a voluntaristic philosophy which would probably have seemed too bold both to him and to Hume.

There can be no doubt that we do not approach the data of perception in an attitude of quiescent resignation. Our desires and needs equip us with assumptions and 'first principles,' which originate from within, not from without. But how precisely should this mental contribution to knowledge be conceived? In the last chapter of his *Psychology* James suggested that the mind's organization is essentially biological. It has evolved according to sound Darwinian principles, and in so doing the fittest of its 'variations' have survived. But were these variations quite fortuitous? May they not have been purposive responses to the stimulation of environment? Can logic have been invented like saws and ships for purposes of human service? These are some of the stimulating questions which James's work in *Psychology* has suggested.

FOOTNOTES:

[A] Not in Bradley's "Logic."

[B] This is the substance of the doctrine of 'The Will to Believe.'

CHAPTER III

WILL IN COGNITION

The new psychology of James was bound to produce a new theory of knowledge, and though it did not actually explore this problem, it contained several valuable suggestions upon the subject. For instance, in a brief passage discussing 'The Relations of Belief and Will,' James pointed out that belief is essentially an attitude of the will towards an idea, adding that in order to acquire a belief 'we need only in cold blood act as if the thing in question were real, and keep acting as if it were real, and it will infallibly end by growing into such a connection with our life that it will become real' (ii., p. 321). This passage is an outline of the doctrine of 'The Will to Believe,' which he was afterwards to develop so forcibly.

Again, in his last chapter, James criticized the doctrine of Spencer that all the principles of thought, all its general truths and axioms, were derived from impressions of the external world. He argued, on the other hand, that such ways of looking at phenomena must originate in the mind, and be prior to the experience which confirms them. Without digging further into the character of this mental contribution to knowledge, James contented himself with the suggestion that the use of these axiomatic principles might be construed in Darwinian style as a 'variation' surviving by its fitness, thus introducing into his account of mental process the important idea that thinking might be tested by its vital value.

What if knowledge be neither a dull submission to dictation from without nor an unexplained necessity of thought? What if it be a bold adventure, an experimental sally of a Will to live, to know and to control reality? What if its principles were frankly *risky*, and their truth had to be *desired* before it was tested and assured? In a word, what if first principles were to begin with *postulates?* Thus the way is paved from the new psychology to a new theory of knowledge. A third alternative to the banal dilemma of 'empiricism' or 'apriorism' suggests itself.

The old *empiricist* view, as typified by Mill, was that the mind had been impressed with all its principles, such as the truths of arithmetic, the axioms of geometry, and the law of causation, by an uncontradicted course of experience, until it generalized facts into 'laws,' and was enabled to predict a similar future with certainty. But this theory had really been exploded in advance by Hume. Facts do not *appear* as causally connected, nor, if they did, would this guarantee that they will continue to do so in the future. The continuum of experience, we may add, is not *given* as a series of arithmetical units or geometrical equalities, unless we deliberately measure it out in accordance with mathematical principles. Empiricism thus gives no real account of the scientific rational order of the world.

But does it follow from the failure of empiricism that apriorism is true? This has always been assumed, and held to dispense rationalist philosophers from giving any direct and positive proof that these principles are *a priori* truths. But manifestly their procedure is logically far from cogent. If a third explanation can be thought of, it will *not* follow that apriorism is true. All that follows is that *something* has to be assumed before experience proves it. What that something is, and whence it comes, remains an open question. Moreover, apriorism has *not* escaped from the empirical doubt about the future. Even granted that facts now conform to the necessities of our thoughts, why should they so comport themselves for ever?

Let us, therefore, try a compromise, which ignores neither that which we bring to experience (like empiricism), nor that which we gain from experience (like apriorism). This compromise is effected by the doctrine of postulation. For though a postulate proceeds from us, and is meant to guide thought in anticipating facts, it yet allows the facts to test and mould it; so that its working modifies, expands, or restricts its demands, and fits it to meet the exigencies of experience, and permits, also, a certain reinterpretation of the previous 'facts' in order to conform them to the postulate.

A postulate thus fully meets the demands of apriorism. It is 'universal' in claim, because it is

convenient and economical to make a rule carry as far as it will go; and it is 'necessary,' because all fresh facts are on principle subjected to it, in the hope that they will support and illustrate it. Yet a postulate can never be accused of being a mere sophistication, or a bar to the progress of knowledge, because it is always willing to submit to verification in the course of fresh experience, and can always be reconstructed or abandoned, should it cease to edify. A long and successful course of service raises a postulate to the dignity of an 'axiom'—*i.e.*, a principle which it is incredible anyone should think worth disputing—whereas repeated failure in application degrades it to the position of a prejudice—*i.e.*, an *a priori* opinion which is always belied by its consequences.

A 'postulate' thus differs essentially from the '*a priori* truth' by its dependence upon the will, by its being the product of a free choice. We have always to select the assumptions upon which we mean to act in our commerce with reality. We select the rules upon which we go, and we select the 'facts' by which we claim to support our rules, stripping them of all the 'irrelevant' details involved by their position in the flux of happenings. Thus we emphasize that side of things which fits in with our expectations, until the facts are 'faked' sufficiently to figure as 'cases' of our 'law.' Postulation and the verifying of postulates is thus a process of reciprocal discrimination and selection. The postulate once formulated, we seek in the flux for confirmations of it, and thus construct a system of 'facts' which are relative to it; that is how the postulate reacts upon experience. If, on the other hand, this process of selection is unfruitful, and the confirmations of our rule turn out infinitesimal, we alter the rule; and thus the 'facts' in the case reject the postulate.

This continuous process of selection and rejection of 'principles' and 'facts' has, as we have said, a thoroughly *biological* tinge. The fitness of a postulate to survive is being continually tested. It springs in the first place from a human hope that events may be systematized in a certain way, and it endures so long as it enables men to deal with them in that way. If it fails, the formation of fresh ideals and fresh hypotheses is demanded; but that which causes one postulate to prevail over another is always the satisfaction which, if successful, it promises to some need or desire. Thus 'thought' is everywhere inspired by 'will.' It is an *instrument*, the most potent man has found, whereby he brings about a harmony with his environment. This harmony is always something of a compromise. We postulate conformity between Nature and one of our ideals. We usually desire more than we can get, but insist on all that Nature can concede.

Causation serves as a good example. Experience as it first comes to us is a mere flood of happenings, with no distinction between causal and casual sequences. Clearly our whole ability to control our life, or even to continue it, demands that we should *predict* what happens, and guide our actions accordingly. We therefore postulate a right to *dissect* the flux, to fit together selected series without reference to the rest. Thus, a systematic network of natural 'laws' is slowly knit together, and chaos visibly transforms itself into scientific order. The postulation of 'causes' is verified by its success. Moreover, it is to be noted that to this postulate there is no alternative. A belief that all events are casual would be scientifically worthless. So is a doctrine (still popular among philosophers) that the only true 'cause' is the total universe at one moment, the only true 'effect,' the whole of reality at the next. For that is merely to reinstate the given chaos science tried to analyse, and to forbid us to make selections from it. It would make prediction wholly vain, and entangle truth in a totality of things which is unique at every instant, and never can recur.

The principles of mathematics are as clearly postulates. In Euclidean geometry we assume definitions of 'points,' 'lines,' 'surfaces,' etc., which are never found in nature, but form the most convenient abstractions for measuring things. Both 'space' and 'time,' as defined for mathematical purposes, are ideal constructions drawn from empirical 'space' (extension) and 'time' (succession) feelings, and purged of the subjective variations of these experiences. Nevertheless, geometry forms the handiest system for applying to experience and calculating shapes and motions. But, ideally, other systems might be used. The 'metageometries' have constructed other ideal 'spaces' out of postulates differing from Euclid's, though when applied to real space their greater complexity destroys their value. The postulatory character of the arithmetical unit is quite as clear; for, in application, we always have to *agree* as to what is to count as 'one'; if we agree to count apples, and count the two halves of an apple as each equalling one, we are said to be 'wrong,' though, if we were dividing the apple among two applicants, it would be quite right to treat each half as 'one' share. Again, though one penny added to another makes two, one drop of water added to another makes one, or a dozen, according as it is dropped. Common sense, therefore, admits that we may reckon variously, and that arithmetic does not *apply* to *all* things.

Again, it is impossible to concede any meaning even to the central 'law of thought' itself—the Law of Identity ('A is A')—except as a postulate. Outside of Formal Logic and lunatic asylums no one wishes to assert that 'A is A.' All significant assertion takes the form 'A is B.' But A and B are *different*, and, indeed, no two 'A's' are ever *quite* the same. Hence, when we assert either the 'identity' of 'A' in two contexts, or that of 'A' and 'B,' in 'A is B,' we are clearly *ignoring differences which really exist—i.e.*, we postulate that in spite of these differences A and B will for our purposes behave as if they were one ('identical'). And we should realize that this postulate is of our making, and involves a risk. It may be that experience refuses to confirm it, and convicts us instead of a 'mistaken identity.' In short, *every identity we reason from is made by our postulating an irrelevance of differences*.

There is thus, perhaps, no fundamental procedure of thought in which we cannot trace some

deliberately adopted attitude. We distinguish between 'ourselves' and the 'external' world, perhaps because we have more control over our thoughts and limbs, and less, or none, over sticks and stones and mountains; fundamental as it is, it is a distinction *within* experience, and is not given ready-made, but elaborated in the course of our dealings with it. Similarly, in accordance with its varying degrees of vividness, continuity, and value, experience itself gets sorted into 'realities,' 'dreams,' and 'hallucinations.' In short, when the processes of discriminating between 'dreams' and 'reality' are considered, all these distinctions will ultimately be found to be judgments of value.

Nor is it only in the realm of scientific knowing that postulation reveals itself as a practicable and successful method of anticipating experience and consolidating fact. The same method has always been employed by man in reaching out towards the final syntheses which (in imagination) complete his vision of reality. The 'truths' of all religions originate in postulates. 'Gods' and 'devils,' 'heavens' and 'hells,' are essentially demands for a moral order in experience which transcend the given. The value of the actual world is supplemented and enhanced by being conceived as projected and continued into a greater, and our postulates are verified by the salutary influence they exercise on our earthly life. Both postulation and verification, then, are applicable to the problems of religion as of science. This is the meaning of the Will to Believe. When James first defined and defended it, it provoked abundant protest, on the ground that it allowed everyone to believe whatever he pleased and to call it 'true.' The critics had simply failed to see that verification by experience is just as integral a part of voluntaristic procedure as experimental postulation, and that James himself had from the first asserted this. Indeed, that he had first given a theological illustration of the function of volition in knowing was merely an accident. But that the will to believe was capable of being generalized into a voluntarist theory of all knowledge was soon shown in Dr. Schiller's *Axioms as Postulates*.

CHAPTER IV

THE DILEMMAS OF DOGMATISM

Every man, probably, is by instinct a dogmatist. He feels perfectly sure that he knows some things, and is right about them against the world. Whatever he believes in he does not doubt, but holds to be self-evidently or indisputably true. His naive dogmatism, moreover, spontaneously assumes that his truth is universal and shared by all others.

If now he could live like a fakir, wholly wrapped in a cloud of his own imaginings, and nothing ever happened to disappoint his expectations, to jar upon his prejudices, and to convict him of error; if he never held converse with anyone who took a different view and controverted him, his dogmatism would be lifelong and incurable. But as he lives socially, he has in practice to outgrow it, and this lands him in a serious theoretical dilemma. He has to learn to live with others who differ from him in their dogmatizing. Social life plainly would become impossible if all rigidly insisted on the absolute rightness of their own beliefs and the absolute wrongness of all others.

So compromises have to be made to get at a common 'truth.' It must be recognized that not everything which is believed to be 'knowledge' is knowledge. In fact, it is safer to assume that none have knowledge, though all think they have; to say fact, men only have 'opinions,' which may be nearer to or farther from 'the truth,' but are not of necessity as unquestionable as they seem to be. Out of this concession to the social life arise three problems. How are 'opinions' to be compared with each other, and how is the extent of their 'truth' or 'error' to be determined? How is the belief in absolute truth to be interpreted and discounted? How is the penitent dogmatist, once he has allowed doubt to corrupt his self-confidence, to be stopped from doubting all things and turning sceptic?

As regards the first problem, the first question is whether we shall try to *test* opinions and to arrive at a standard of value by which to measure them by comparing the opinions themselves with one another, or shall presume that there must be some absolute standard which alone is truly true, whether we are aware of it or not. The former view is *relativism*, the latter is *absolutism*, in the matter of truth.

Now, there can be no doubt that absolutism is more congenial to our natural prejudices. Accordingly it is the method tried first; but it soon conducts dogmatism to an awkward series of dilemmas.

1. If there is absolute truth, who has it? and who can use the absolute criterion of opinions it is supposed to form? Not, surely, everyone who *thinks* he has. It will never do to let every dogmatist vote for himself and condemn all others. That way war and madness lie. Until there is absolute agreement, there cannot be absolute truth.

2. But absolute truth may still be reverenced as an ideal, to save us from the scepticism to which a complete relativity of truth would lead. But would it save us? If it is admitted that no one can arrogate to himself its possession, what use is it to believe that it is an ideal? For if no one can assume that he has it, all *human* truth is, in fact, such as the relativist asserted, and scepticism is just as inevitable as before. It makes no difference to the sceptical inference whether there is no absolute truth, or whether it is unattained by man, and human unattainable.

3. It was a mistake, therefore, to admit that opinions cannot be compared together. Some are much more certain than others, and, indeed, 'self-evident' and 'intuitive.' Let us therefore take these to be 'truer.' If so, the thinker who feels most certain he is right is most likely to be right.

4. This suggestion will be welcomed by all dogmatists—until they discover that it does not help them to agree together, because they are all as certain as can be. But a critically-minded man will urge against it that *'certainty' is a subjective and psychological criterion*, and that no one has been able to devise a method for distinguishing the alleged logical from the undeniable psychological certainty. He will hesitate to say, therefore, that because a belief seems certain it is true, and to trust the formal claim to infallibility which is made in every judgment. And when 'intuitions' are appealed to, he will ask how 'true' intuitions are to be discriminated from 'false,' sound from insane, and inquire to what he is committing himself in admitting the truth of intuitions. He will demand, therefore, the publication of a list of the intuitions which are absolutely true. But he will not get it, and if he did, it may be predicted that he would not find a single one which has not been disputed by some eminent philosopher.

5. Intuitions, therefore, are an embarrassment, rather than a help to Intellectualism. It has to maintain both that intuitions are the foundations of all truth and certitude, and also that not all are true. But our natural curiosity as to how these sorts are to be known apart is left unsatisfied. We must not ask which are true, and which not. No one can say in advance about what matters intuitive certainty is possible; what is, or is not, an intuition is revealed only to reflection after the event. Only if an intuition *has* played us false, we may be sure it *was* not infallible; it must either have been one of the fallible sort, or else no intuition at all

6. At this point universal scepticism begins to raise its hydra head, and to grin at the dogmatist's discomfiture. For in point of fact the history of thought reveals, not a steady accumulation of indubitable truth, but a continuous strife of opinions, in which the most widely accepted beliefs daily succumb to fresh criticism and fall into disrepute as the 'errors of the past.' Nothing, it seems, can guarantee a 'truth,' however firmly it may be believed for a time, from the corrosive force of new speculation and changed opinion; to survey the field of philosophic dispute, strewn with the remains of 'infallible' systems and 'absolute' certainties, is to be led irresistibly to a sceptical doubt as to the competence of human thought. If 'absolute truth' is our ideal and acquaintance with 'absolute reality' our aim, then, in view of the persistent illusions on both these points to which the human mind is liable, it seems necessary to recognize the hopelessness of our search. Thus the last dilemma of dogmatism is reached. In view of the diversity of human beliefs and the discredit which has historically fallen on the most axiomatic articles of faith, we must either admit scepticism to be the issue of the debate, or else, condemning our absolute view of truth, find some means of utilizing the relative truths which are all that humanity seems able to grasp. But to come to terms with relativism is to renounce the dogmatic attitude entirely, and to approach the problems of philosophy in a totally different spirit.

CHAPTER V

THE PROBLEM OF TRUTH AND ERROR

It has been shown in the last chapter how urgent has become the problem of discriminating between the true and false among relative 'truths.' For absolute truth has become a chimera, self-evidence an illusion, and intuition untrustworthy. All three are psychologically very real to those who believe in them, but logically they succumb to the assaults of a scepticism which infers from the fact that no 'truths' are absolute that all may reasonably be overthrown.

The only obstacle to its triumph lies in the existence of 'relative' truths which are *not* absolute, and do not claim to be, and in the unexamined possibility that in a relativist interpretation of all truth a meaning may be found for the distinction between 'true' and 'false.' Now, not even a sceptic could deny that the size of an object is better measured by a yard-measure than by the eye, even though it may be meaningless to ask what its size may be absolutely; or that it is probable that bread will be found more nourishing than stone, even though it may not be a perfect elixir of life. Even if he denied this, the sceptic's *acts* would convict his *words* of insincerity, and *practically*, at any rate, no one has been or can be a sceptic, whatever the extent of his *theoretic* doubts.

This fact is construed by the pragmatist as a significant indication of the way out of the epistemological *impasse*. The 'relative' truths, which Intellectualism passed by with contempt, may differ in *practical value* and lead to the conceptions of *practical truth* and certainty which may be better adapted to the requirements of human life than the elusive and discredited ideals of absolute truth and certainty, and may enable us to justify the distinctions we make between the 'true' and the 'false. At any rate, this suggestion seems worth following up.

To begin with, we must radically disabuse our minds of the idea that thinking *starts from certainty.* Even the self-evident and self-confident 'intuitions' that impress the uncritical so much with their claim to infallibility are really the results of antecedent doubts and ponderings, and would never be enunciated unless there were thought to be a dispute about them. In real life thought starts from perplexities, from situations in which, as Professor Dewey says, beliefs have

to be 'reconstructed,' and it aims at setting doubts at rest. It is psychologically impossible for a rational mind to assert what it knows to be true, and supposes everyone else to admit the truth of. This is why even a philosopher's conversation does not consist of a rehearsal of all the unchallenged truisms that he can remember.

Being thus conditioned by a doubt, every judgment is a challenge. It claims truth, and backs its claims by the authority of its maker; but it would be folly to imagine that it thereby becomes *ipso facto* true, or is meant to be universally accepted without testing. Its maker must know this as well as anyone, unless his dogmatism has quite blotted out his common sense. Indeed, he may himself have given preference to the judgment he made over the alternatives that occurred to him only after much debate and hesitation, and may propound it only as a basis for further discussion and testing.

Initially, then, every judgment is a *truth-claim*, and this claim is merely *formal*. It does not *mean* that the claim is absolutely true, and that it is impious to question it. On the contrary, it has still to be validated by others, and may work in such a way that its own maker withdraws it, and corrects it by a better. The intellectualist accounts of truth have all failed to make this vital distinction between 'truth-claim' and validated truth. They rest on a *confusion of formal with absolute truth*, and it is on this account that they cannot distinguish between 'truth' and error. For false judgments also formally claim 'truth,' No judgment alleges that it is false.[C]

On the other hand, if the distinction between truth-claims and validated truths is made, there ceases to be any *theoretic* difficulty about the conception and correction of errors, however difficult it may be to detect them in practice. 'Truths' will be 'claims' which have worked well and maintained themselves; 'errors,' such as have been superseded by better ones. All 'truths' must be *tested* by something more objective than their own self-assertiveness, and this testing by their working and the consequences to which they lead may go on indefinitely. In other words, however much a 'truth' has been validated, it is always possible to test it further. *I.e.,* it is never theoretically 'absolute,' however well it may practically be assured. For a confirmation of this doctrine Pragmatism appeals to the history of scientific truth, which has shown a continuous correction of 'truths,' which were re-valued as 'errors,' as better statements for them became available.

It may also be confirmed negatively by the breakdown of the current definitions of truth, which all seem in the end to mean nothing.

The oldest and commonest definition of a 'truth' which is given is that it is 'the correspondence of a thought to reality.' But Intellectualism never perceived the difficulties lurking in it. At first sight this seems a brave attempt to get outside the circle of thought in order to test its value and to control its vagaries. Unluckily, this theory can only assert, and neither explains nor proves, the connection between the thought and the reality it desiderates. For, granting that it is the intent of every thought to correspond with reality, we must yet inquire how the alleged correspondence is to be made out. Made out it must be; for as the criterion is quite formal and holds of all assertions, the claim to 'correspond' may be false. To prove the correspondence, then, the 'reality' would have somehow to be known apart from the truth-claim of the thought, in order that the two might be compared and found to agree. But if the reality were already known directly, what would be the need of asserting an idea of it and claiming 'truth' for this? How, moreover, could the claim be tested, if, as is admitted, the reality is not directly known? To assert the 'correspondence' must become a groundless postulate about something which is defined to transcend all knowledge. The correspondence theory, then, does not *test* the truth-claim of the assertion; it only gives a fresh definition of it. A 'true' thought, it says, is one which *claims to correspond* with a 'reality.' *But so does a false,* and hence the theory leaves us as we were, puzzled to distinguish them.[D]

Yet the theory is not wholly wrong. Many of our thoughts do claim to correspond with reality in ways that can be verified. If the judgment 'There is a green carpet in my hall' is taken to mean 'If I enter my hall, I shall *see* a green carpet,' perception tests whether the judgment 'corresponds' with the reality perceived, and so goes to validate or disprove the claim. But the limits within which this correspondence works are very strait. It applies only to such judgments as are anticipations of perception,[E] and will test a truth-claim only where there is willingness to act on it. It implies an experiment, and is not a wholly intellectual process.

The superiority of the 'correspondence' theory over the belief in 'intuitions' lies in its insistence that thought is not to audit its own accounts. Its success or failure depends upon factors external to it, which establish the truth or falsehood of its claims. No such guarantee is offered by the next theory, which is known as the 'consistence' or 'coherence' theory. In order to avoid the difficulty which wrecked the 'correspondence' theory, that of making the truth of an assertion reside in an inexperienceable relation to an unattainable reality, this view maintains that an idea is true if it is consistent with the rest of our thoughts, and so can be fitted with them into a coherent system. No doubt a coherence among our ideas is a convenience and a part of their 'working,' but it is hardly a test of their objective truth. For a harmonious system of thoughts is conceivable which would either not apply to reality at all, or, if applied, would completely fail. On this theory

systematic delusions, fictions, and dreams, might properly lay claim to truth. True, they might not be quite consistent: but neither are the systems of our sciences. If, then, this *absolute* coherence be insisted on, this test condemns our whole knowledge; if not, it remains formal, and fails to recognize any distinctions of value in the claims which can be systematized.

To avoid this *reductio ad absurdum*, it has been suggested that it is not the coherence of the idea in human, finite, minds which constitutes 'truth,' but the perfect consistency of the experience of an Absolute Mind. The test, then, of our limited coherency will lie in its relation to this Absolute System. But here we have the correspondence doctrine once again in a fresh disguise; our human systems are now 'true' if they correspond with the Absolute's, But as there is no way for us of sharing the Absolute Experience, our test is again illusory, and productive of a depressing scepticism; and, again, we have only asserted that truth is what *claims* to be part of the Absolute System.

A word may be devoted to the simple refusal of intuitionists to give an account of Truth on the ground that it is 'indefinable.' Truth is taken to be an ultimate unanalyzable quality of certain propositions, intuitively felt, and incapable of description. Error, by the same token, should be equally indefinable and as immediately apprehended. How, then, can there be differences of opinion, and mistakes as to what is true and what false? How is it that a proposition which is felt to be 'true' so often turns out to be erroneous? If all errors are felt to be true by those they deceive, is it not clear that immediate feeling is not a good enough test of a validated truth? Thus, once again, we find that an account of truth-claim is being foisted on us in place of a description of truth-testing.

The intellectualist, then, being in every case unable to justify the vital distinction commonly made between the true and the false, we return to the pragmatist. He starts with no preconceptions as to what truth must mean, whether it exists or not; he is content to watch how *de facto* claims to truth get themselves validated in experience. He observes that every question is intimately related to some scheme of human purposes. For it has to be *put*, in order to come into being. Hence every inquiry arises, and every question is asked, because of obstacles and problems which arise in the carrying out of human purposes. So soon as uncertainty arises in the course of fulfilling a purpose, an idea or belief is formulated *and acted on*, to fill the gap where immediate certitude has broken down. This engenders the truth-claim, which is necessarily a 'good' in its maker's eyes, because it has been selected by him and judged *preferable* to any alternative that occurred to him.

How, then, is it tested? Simply by the consequences which follow from adopting it and using it as an assumption upon which to work. If these consequences are satisfactory, if they promote the purpose in hand, instead of thwarting it, and thus have a valuable effect upon life, then the truth-claim maintains its 'truth,' and is so far validated. This is the universal method of testing assertions alike in the formation of mathematical laws, physical hypotheses, religious beliefs, and ethical postulates. Hence such pragmatic aphorisms as 'truth is useful' or 'truth is a matter of practical consequences' mean essentially that all assertions must be *tested by being applied to a real problem of knowing.* What is signified by such statements is that no 'truth' must be accepted merely on account of the insistence of its claim, but that every idea must be tested by the consequences of its working. Its truth will then depend upon those consequences being fruitful for life in general, and in particular for the purpose behind the particular inquiry in which it arose. Truth is a *value* and a satisfaction; but 'intellectual satisfaction' is not a morbid delight in dialectical and verbal juggling: it is the satisfaction which rewards the hard labour of rationalizing experience and rendering it more conformable with human desires.

It should be clear, though it is often misunderstood, that there is nothing arbitrary or 'subjective' in this method of testing beliefs. It does not mean that we are free to assert the truth of every idea which seems to us pretty or pleasant. The very term 'useful' was chosen by pragmatists as a protest against the common philosophic licence of alleging 'truths' which could never be applied or tested, and were supposed to be none the worse for being 'useless.' It is clear both that such 'truths' must be a monopoly of Intellectualism, and also that they do allow every man to believe whatever he wishes, provided only that he boldly claims 'self-evidence' for his idiosyncrasy. In this purely subjective sense, into which Intellectualism is driven, it is, however, clear that there can be no useless ideas. For any idea anyone decided to adopt, because it pleased or amused him, would be *ipso facto* true. Pragmatism, therefore, by refuting 'useless' knowledge, shows that it does *not* admit such merely subjective 'uses.' It insists that ideas must be more objectively useful—viz., by showing ability to cope with the situation they were devised to meet. If they fail to harmonize with the situation they are untrue, however attractive they may be. For ideas do not function in a void; they have to work in a world of fact, and to adapt themselves to all facts, though they may succeed in transforming them in the end.

Nor has an idea to reckon only with facts: it has also to cohere with other ideas. It must be congruous with the mass of other beliefs held for good reasons by the thinker who accepts it. For no one can afford to have a stock of beliefs which conflict too violently with those of his fellows. If his 'intuitions' contrast too seriously with those of others, and he acts on them, he will be shut up as a lunatic. If, then, the 'useful' idea has to approve itself both to its maker and his fellows without developing limitations in its use, it is clear that a pragmatic truth is really far less arbitrary and subjective than the 'truths' accepted as absolute, on the bare ground that they seem 'self-evident' to a few intellectualists.

If, however, it be urged that pragmatic truths never grow absolutely true at all, and that the

most prolonged pragmatic tests do not exclude the possibility of an ultimate error in the idea, there is no difficulty about admitting this. The pragmatic test yields *practical*, and not 'absolute,' certainty. The existence of absolute certainty is denied, and the demand for it, in a world which contains only the practical sort, merely plays into the hands of scepticism. The uncertainty of all our verificatory processes, however, is not the creation of the pragmatist, nor is he a god to abolish it. Abstractly, there is always a doubt about what transcends our immediate experience, and this is why it is so healthy to have to repudiate so many theoretic doubts in every act we do. For beliefs have to be acted on, and the results of the action rightly react on the beliefs. The pragmatic test is practically adequate, and is the only one available. That it brings out the risk of action only brings out its superiority to a theory which cannot get started at all until it is supplied with absolute certainty, and meantime can only idly rail at all existing human truths.

We have in all this consistently referred the truth of ideas to individual experiences for verification. This evidently makes all truths in some sense dependent upon the personality of those who assert and accept them. Intellectualist logic, on the other hand, has always proclaimed that mental processes, if true, are 'independent' of the idiosyncrasies of particular minds. Ideas have a *fixed* meaning, and cohere in bodies of 'universal' truth, quite irrespective of whether any particular mind harbours them or not. This is not only a contention fatal to the pragmatic claims, but also bound up with other assumptions of Formal Logic. So it becomes necessary to inquire whether this Logic is a success, and so can coherently abstract from the personality of the knower and the particular situations that incite him to know.

FOOTNOTES:

[C] Not even 'I lie,' which is meaningless as it stands, *Cf.* Dr. Schiller's *Formal Logic*, p. 373.

[D] This same difficulty reappears in various forms, as *e.g.*, in a recent theory which makes the truth of a judgment lie in its asserting a relation between different objects, and not in the existence of those objects themselves. This formula also applies as evidently to false judgments as to true. It, too, brings no independent evidence of the existence of the objects referred to, and might fall into error through asserting a relation between objects which did not exist. It is, moreover, incapable of showing that a relation corresponding to the idea we have of it really exists when we judge that it does.

[E] Each perception, however, contains much that is supplied by the mind, not 'given' to it.

CHAPTER VI

THE FAILURE OF FORMAL LOGIC

In order to escape the necessity of concerning itself with personality and particular circumstances in questions of truth and error, Intellectualism appeals to Logic, which it conceives as a purely formal science and its impregnable citadel. This appeal, however, rests on a number of questionable assumptions, and most of these are not avowed.

1. It assumes that forms of thought can be treated in abstraction from their matter—in other words, that the general types of thinking are never affected by the particular context in which they occur. Now, this means that the question of real truth must not be raised; for, as we have seen (Chapter V.), real truth is always an affair of particular consequences. The result is, that as truth-claims are no longer tested, they *all pass as true* for Logic, and are even raised to the rank of 'absolute truths,' or are mistaken for them. For the notion of a really ('materially') true judgment which someone has chosen, made, and tested, there is substituted that of a formally valid proposition, and in the end Logic gets so involved in the study of 'validity' that it puts aside altogether all real tests of truth, and becomes a game with verbal symbols which is entirely irrelevant to scientific thinking.

2. Formal Logic assumes the right of abstracting from the whole process of making an assertion. It presumes that the assertion has already been made somehow. How, it does not inquire. Yet it is clear that in each case there were concrete reasons why just *that* assertion was preferred to any other. These concrete reasons it makes bold to dismiss as 'psychological,' and between 'logic' and 'psychology'[F] it decrees an absolute divorce. Where, when, why, by and to whom, an assertion was made, is taken to be irrelevant, and put aside as 'extralogical.'

3. This convenient assumption, however, ultimately necessitates an abstraction from meaning, though Formal Logic does not avow this openly. Every assertion is meant to convey a certain meaning in a certain context, and therefore its verbal 'form' has to take on its own individual *nuance* of meaning. What any particular form of words does in fact mean on any particular occasion always depends upon the use of the words in a particular context. Meaning, therefore, cannot be depersonalized; if meanings are depersonalized, they cease to be real, and become verbal.

Formal Logic has, in fact, mistaken *words*, which are (within the same language) identical on all occasions, for the *thoughts* they are intended to express, which are varied to suit each occasion. Words alone are tolerant of the abstract treatment Formal Logic demands. This 'science,' therefore, finally reduces to mere verbalism, distracted by inconsistent relapses into 'psychology.'

But will this conception of Logic either work out consistently in itself or lead to a tenable theory of scientific thinking? Emphatically not. What is the use of a logic which (1) cannot effect the capital distinction of all thought, that between the true and the false? (2) is debarred by its own principles from considering the *meaning* of any real assertion? and (3) is thus tossed helplessly from horn to horn of the dilemma 'either verbalism or psychology'?

We may select a few examples of this fatal dilemma.

1. In dealing with what it calls 'the meaning' of terms, propositions, etc., Formal Logic has always to choose between the meaning of the *words* and the meaning of the *man*. For it is clear that words which may be used ambiguously may on occasion leave no doubt as to their meaning, while conversely all may become 'ambiguous' in a context. If, therefore, the occasion is abstracted from, all forms must be treated verbally as ambiguous formulae, which may be used in different senses. If it is, nevertheless, attempted to deal with their actual meaning on any given occasion, what its maker meant the words to convey must be discovered, and the inquiry at once becomes 'psychological'—that is to say, 'extralogical.'

2. If judgments are not to be verbal ('propositions'), but real assertions which are actually meant, they must proceed from personal selections, and must have been chosen from among alternative formulations because of their superior value for their maker's purpose. But all this is plainly an affair of psychology. So inevitable is this that a truly formal Ideal of 'Logic' would exclude ail judgment whatever from the complete system of 'eternal' Truth. For from such a system no part could be rightly extracted to stand alone. Such a selection could be effected and justified only by the exigencies of a human thinker.

The impotent verbalism of the formal treatment of judgment appears in another way when the question is raised *how* a 'true' judgment is to be distinguished from a 'false.' For the logician, if his public will not accept either the relegation of this distinction to 'psychology' or the proper formal answer that *all* judgments are (formally) 'true' and even 'infallible,' can think of nothing better to say than that if the 'judgment' is not true it was not a 'true judgment,' but a false 'opinion' which may be abandoned to 'psychology.'[G] Apparently he is not concerned to help men to discriminate between 'judgments' and 'opinions,' or even to show that true 'judgments' do in fact occur.

3. Inference involves Formal Logic in a host of difficulties.

(a) If it is not to be a verbal manipulation of phrases whose coming together is not inquired into, it must be a connected train of thought. But such a connection of thoughts cannot be conceived or understood without reference to the purpose of a reasoner, who *selects* what he requires from the totality of 'truths.' If, then, 'Logic' has merely to contemplate this eternal and immutable system of truth in its integrity, and forbids all selection from it for a merely human purpose, how can it either justify, or even understand, the drawing of any inference whatever?

(*b*) Formal Logic clearly will not quail before the charge of uselessness. But on its own principles it ought to be consistent. But by this test also, when it is rigorously judged by it, it fails completely. Its inconsistencies are many and incurable. It cannot even be consistent in its theory of the simplest fundamentals. It is found upon some occasions to define judgment as that which may be *either* true *or* false; and upon others as that which is 'true' (formally)—*i.e.*, it cannot decide whether or not to ignore the existence of error.

(*c*) The Formal view of inference regards it as a 'paradox.' An inference is required on the one hand to supply fresh information, and on the other to follow rigorously from its premises; it must, in a word, exhibit both *novelty* and *necessity*. It would seem, however, that if our inference genuinely had imparted new knowledge, the event must be merely psychological; for how can any process or event perturb, or add to, the completed totality of truth in itself? On the other hand, if the 'necessity' of the operation be taken seriously, the 'inference' becomes illusory; for if the conclusion inferred is already contained in the premises, what sense is there in the purely verbal process of drawing it out?

(*d*) Most glaringly inadequate of all, however, is the Formal doctrine of 'Proof' contained in its theory of the Syllogism. A Formal or verbal syllogism depends essentially on the ability of its Middle Term to connect the terms in its conclusion. If, however, the Middle Term has not *the same* meaning in the two premises, the syllogism breaks in two, and no 'valid' conclusion can be reached. Now, whether in fact any particular Middle Term bears the same meaning in any actual reasoning Formal Logic has debarred itself from inquiring, by deciding that actual meaning was 'psychological.' It has to be content, therefore, with an identity *in the word* employed for its Middle, But this evidence may always fail; for when two premises which are (in general) 'true' are brought together for the purpose of drawing a particular conclusion, a glaring falsehood may result. *E.g.*, it would in general be granted that 'iron sinks in water,' yet it does not follow that because 'this ship is iron' it will 'sink in water,' Hence syllogistic 'proof' seems quite devoid of the

'cogency' it claimed. After a conclusion has been 'demonstrated' *it has still to come true in fact*. This flaw in the Syllogism was first pointed out by Mr. Alfred Sidgwick.

(*e*) The formal Syllogism, moreover, conceals another formal flaw. An infinite regress lurks in its bosom. For if its premisses are disputed, they must in turn be 'proved.' Four fresh premisses are needed, and if these again are challenged, the number of true premisses needed to prove the first conclusion goes on doubling at every step *ad infinitum*. The only way to stop the process that occurred to logicians was an appeal to the 'self-evident' truth of 'intuitions'; but this has been shown to be argumentatively worthless. From this difficulty the pragmatist alone escapes, by assuming his premisses *provisionally* and arguing *forwards*, in order to test them by their consequences. If the deduced conclusion can be verified in fact, the premisses grow more assured. Thus every real inference is an experiment, and 'proof' is an affair of continuous trial and verification—not an infinite falling back upon an elusive 'certainty,' but an infinite reaching forwards towards a fuller consummation.

(*f*) So long as the logician regards his premisses not as hypotheses to be tested, but as established truths, he must condemn the Syllogism as a formal fallacy. It is inevitably a *petitio principii*. If the argument 'All men are mortal; Smith is a man, therefore Smith is mortal,' means that we know, before drawing our inference, that literally all men are mortal, we must already have discovered that Smith is mortal; if we did not know beforehand that Smith is mortal, we were not justified in stating that *all* men are mortal. Nor is it an escape to interpret 'All men are mortal' to mean that immortals are excluded from 'man' by definition. For then the question is merely begged in the minor premiss. That 'Smith is a man' cannot be asserted without assuming that he is mortal. If, lastly, 'All men are mortal' be taken to state a law of nature conjoining inseparably mortality and humanity, the logician either already knows that Smith is rightly classed under the species 'man,' and so subject to its mortality, or else he *assumes* this. But how does he know Smith is not like Elijah or Tithonus, a peculiar case, to which for some reason the law does not apply? Will he declare it to be 'intuitively certain' that whatever is called, or looks like, a case of a 'law' *ipso facto* becomes one?

The logician's analysis of reasoning, then, breaks down. In whichever way he interprets the Syllogism it is revealed as either a superfluity or a fallacy: it is never a 'formally valid inference' that can compel assent. But common sense is undismayed by the pragmatist's discovery that if the Syllogism is to have any sense its premisses *must* be taken as disputable; for, unlike Formal Logic, it has perceived that men do not reason about what they think they know for certain, but about matters in dispute.

4. It is not necessary to dwell at length on the futility of the formal notion of Induction. Formal Induction presupposes that enough particular instances have been collected to establish a general rule; but in actual practice inductions always repose, not on indiscriminate observation, but on a *selection of relevant instances*, and never claim to be based upon an *exhaustive* knowledge of particulars. Hence *in form* the most satisfactory induction is always incomplete, and differs in no wise from a bad one. 'All bodies fall to the ground' is an induction which has worked. 'All swans are white' broke down when black swans were discovered in Australia. The validity of an induction, then, is not a question of form.

The necessity for such selection no intellectualist theory of Induction has understood. All have aimed at exhaustiveness, and imagined that if it could be attained, inductive reasoning would be rendered sound, and not impossible. Their ideal 'cause' was the totality of reality, identified with its 'effect,' in a meaningless tautology. Nothing but voluntarism can enable logicians to see that our actual procedure in knowing is the reverse of this, that causal explanation is the *analysis* of a continuum, and that 'phenomena,' 'events,' 'effects,' and 'causes' are all creations of our selective attention; that in selecting them we run a risk of analyzing falsely, and that if we do, our 'inductions' will be worthless. But whether they are right or wrong, valuable or not, real reasoning from 'facts' can never be a 'formally valid' process.

We are thus brought to see the hollowness of the contention that 'Pure Reason' can ignore its psychological context and dehumanize itself. A thought, to be thought at all, must seem *worth* thinking to someone, it must convey the meaning he intends, it must be true in his eyes and relevant to his purposes in the situation in which it arises—*i.e.*, it must have a motive, a value, a meaning, a purpose, a context, and be selected from a greater whole for its relevance to these. None of these features does intellectualist logic deign to recognize. For if truth is absolute and not relative, it is all or nothing. Yet no actual thinking has such transcendent aims. It is content with selections relative to a concrete situation. If it were permissible to diversify a debate—*e.g.*, about the authorship of the *Odyssey*—by an irruption of undisputed truths—*e.g.*, a recitation of the multiplication table—how would it be possible to distinguish a philosopher from a lunatic?

Formal Logic is either a perennial source of errors about real thinking, or at best an aimless dissection of a *caput mortuum*—*i.e.*, of the verbal husks of dead thoughts, whose value Formal Logic could neither establish nor apprehend, A real Logic, therefore, would most anxiously avoid all the initial abstractions which have reduced Formal Logic to such impotence, and would abandon the insane attempt to eliminate the thinker from the theory of thought.

FOOTNOTES:

[F] The descriptive science of thought, in its concrete actuality in different minds.

[G] The most popular contribution which Oxford makes just now to the theory of Error

is, 'A judgment which is erroneous is not really a judgment.' So when a professor 'judges' he is infallible—by definition!

CHAPTER VII

THE BANKRUPTCY OF INTELLECTUALISM

We have now struggled through the quagmires of intellectualist philosophy, and found that neither in its Psychology, which divided the mind's integrity into a heap of faculties, and comminuted it into a dust-cloud of sensations; nor in its Epistemology, which ignored the will to know and the value of knowing; nor in its Logic, which abstracted thought wholly from the thinking and the thinker, and so finally from, all meaning, could man find a practicable route of philosophic progress. But our struggles will not have been in vain if they have left us with a willingness to try the pragmatist alternative, and convinced us that it is not a wanton innovation, but the only path of salvation for the scientific spirit.

But before we venture on it, it will be well to restore confidence in the solvency of human thought by analysing the causes of the bankruptcy of Intellectualism and exposing the extravagance of the assumptions which conducted to it.

Was it not, after all, an unwarranted assumption that severed the intellect from its natural connection with human activity? No doubt it seemed to simplify the problem to suppose that the functioning of the intellect could be studied as a thing apart, and unrelated to the general context of the vital functions. Again, it was to simplify to assume that thought could be considered apart from the personality of the human thinker. But it should not have been forgotten that it is possible to pay too dearly for simplifications and abstractions, and that they all involve a risk, which the event may show should never have been taken. So it is in this case. Its rash assumptions confront Intellectualism with a host of problems it cannot attack. It can do nothing to assuage the conflict of opinions which all claim truth with equal confidence. It cannot understand the correction of error which is continually proceeding. Nor can it understand, either the existence of error or the meaning of truth, or the means of distinguishing between them. It has no means of testing and confuting even the wildest and maddest assertions. It cannot discriminate between the intuitions of the sage and of the lunatic. It is forced to view energy of will in knowing as a source merely of corruption, and when it finds that as a psychic fact willing is ineradicable, it must conclude that we are constitutionally incapable of that passive reflection of reality which it regards as the *sine qua non* of truth. Hence, if disinterestedness is the condition of knowing, knowledge is impossible. And it is so entangled in its unintelligible theory of truth as a copying of reality that, rather than renounce it, when it finds that human knowing is *not* copying, it prefers a surrender to Scepticism.

Yet is not its whole procedure a signal example of human arbitrariness and perversity? We professed to be impelled by logical necessity at every step, but were free to escape from all our perplexities by adopting the pragmatic inferences from them. The Pragmatic Method of observing the consequences readily suggests the means of discriminating between truth and error, of sifting values and of testing claims. And, though not infallible, it is adequate to all our needs. The pragmatic notion that *Truth is practical* closes the artificial gulf between the theoretic and the practical side of life, and assigns to truth a biological function and vital value. The humanist contention that *Truth is human* rescues man from the despondency in which his failure to grasp absolute truth had left him. The Protagorean dictum that *Man is the measure of all things* assures him that *his* knowledge may become adequate to *his* reality, and that the value of truths and the differences between truth and error also are susceptible of estimation.

True, this policy averts the bankruptcy of the intellect by scaling down the intolerable charges on it. True, practical knowledge is not absolute; but if it is enough to live by, is it not better to live by it than to be lured on to perish in the deserts of Scepticism by the *mirage* of an absolute truth not humanly attainable? True, verification is not 'proof,' but as its conclusions are not incorrigible, its defects are not fatal, and its demands are not impracticable. True, no truth and no reality are wholly 'objective,' in the sense of wholly indifferent to our action; but to say that the human and 'subjective' factor in all knowledge must be taken into account does not preclude our apprehending and measuring an 'objective' world as real as, and more knowable than, any other theory can offer.

Thus the proposals of Pragmatism for reconstructing the business of the intellect, and rescuing it from the bankruptcy of Intellectualism, are not unreasonable. They open out to it a prospect of recovering its credit and its usefulness by returning to the service of Life.

CHAPTER VIII

THOUGHT AND LIFE

The mission of Pragmatism is to bring Philosophy into relation to real Life and Action. So far

from regarding Thought as a self-centred, self-enclosed activity, Pragmatism insists upon replacing it in its context among the other functions of life, and in measuring its value by its effect upon them. So far, again, from regarding the abstract intellect as a vast Juggernaut machine which absorbs and crushes the individual thinker, it treats him individually as having his own constitution, *raison d'être,* and intrinsic interest, and credits him with a power to make new truths and to enrich the resources of thought. Each thinker has before him an individual situation, a system of aims and values, a stock of knowledge and of means from which he must select what is relevant to his ends, and so cannot escape in any judgment from the responsibilities of a personal decision.

Thus, for Pragmatism *every thought is an act* with a person behind it, who is responsible for launching it into the world of fact. The result of this change of attitude is immediate. In the first place, as has been shown in Chapter V., by bringing thought face to face with the whole experience upon which it claims to work, we are enabled to find a tangible rule for evaluating its assertions and distinguishing truth from error. And, secondly, by recognizing that the mind is not an apparatus which functions in a vacuum, but is a constituent of an individual organism, we see that thinking always depends upon a purpose; for it is the purpose of an inquiry which gives reflection its cue, and determines its scope and (most essential of all) its meaning.

We are thus led from the narrower logical question, 'What constitutes the "truth" of a statement?' to a wider outlook, from which we can survey the place of knowing in human life at large. This may be called the transition from Pragmatism to Humanism. This last word was introduced into philosophic terminology by Dr. Schiller in order to describe his general philosophical position as distinct from the original question of the theory of knowledge, which had been treated by James under the name of Pragmatism.

To the Humanist the best definition of life is one which displays it as throughout purposive, as a rational pursuit of ends. This raises the question of the validity of valuations. Valuation is a widespread human practice. In their most general aspect we classify all objects as 'good' and 'bad,' according as they are ends to be pursued or avoided, or means which further or frustrate the pursuit of ends. This general antithesis between the 'good' and the 'bad' has numerous specific forms, applicable to different departments of human activity. Thus, in conduct, actions are judged 'good' or 'evil' and 'right' or 'wrong'; in thinking, ideas are 'true' or 'false,' and 'relevant' or 'irrelevant'; for art, objects are 'beautiful' or 'ugly,' and so forth, for the modes of valuation in life are innumerable. Any one of these adjectives either denotes value or censures lack of worth, and each gets its meaning by reference to the specific purpose, moral, aesthetic, or intellectual, it appeals to. The *summum bonum*, or supreme good, will then be the ideal of the harmonious satisfaction of all purposes.

What, then, from the standpoint of Humanism, is the function of 'truth-values' in our life? They indicate a relation to the cognitive end. What is this end? Surely not self-sufficing? A truth that is merely true in itself has no interest for human life, and no human mind has an interest in discovering and affirming it. Truth, therefore, cannot stand aloof from life. It must somehow subserve our vital purposes. But how shall it do this? Only by becoming applicable to the reality we have to live with, by becoming useful for the changes we desire to effect in it. Whoever will not admit this, and renders truth inapplicable, does in fact render it unmeaning.

The fact that thought essentially refers to a 'reality' external to it in no way diminishes its purposive character. Whether the mind is idealizing an aspect of reality (as in mathematics) or abstracting, classifying, and predicting (as in science), it is always the fact that a particular kind of reality is needed for some serious or trivial purpose which guides the operations of the thinker. A mind which craved to embrace all or 'any' reality need not *think*; it would do better to float without discrimination upon the flux of change. This procedure would be so absolutely antithetical to human knowing that it seems a wanton paradox on that account to treat it as the final goal of knowledge.

Actually, of course, the philosophers who claim to be devoted to pure theory follow no such course. They deliberately choose their ideal of what is worth knowing—*e.g.*, 'God,' or 'the unity of all things,' or 'the laws of the universe'—and, disregarding all other existences, they pursue the kind of reality they desire because of its religious or moral or aesthetic value. For there could be no greater mistake than to suppose that the common antithesis between 'reality' and the 'un-real' usually means the same thing as the distinction between what 'exists' and what is absolutely non-existent. On the contrary, it is usually a judgment of value. We may say that the 'haunted' house is real and the 'ghost' is not; but as an hallucination the ghost is real enough. Utopia is unreal for the politician, but exists as an ideal for the theorist. The Platonist treats our physical world of sight and touch, which we think the most real of all, as a mere illusion compared to the 'Ideas' of his metaphysical world. The thinker who declares he wants to know all about 'reality' does not mean that he wishes to investigate *everything* which in any sense exists, but that he wishes to know what *he* considers *best worth knowing*—and this, of course, implies a personal valuation, a purged and expurgated extract, which will not offend his taste. So all philosophies are, in fact, selective. Even the more conscientious rationalists show very little anxiety to include in their intellectual scheme a knowledge of their opponents' opinions—indeed, they seem to think that the existence of such facts may be made dependent wholly on their will to recognize them. An exposition of Pragmatism is for them a 'reality' which does not count: it is not worth knowing about. And this is only natural, after all. For 'reality,' the object of the mind's search, is always a selection, conceived after the likeness of the heart's desire, the product of a human purpose.

To recognize this is to appreciate the wisdom of Humanism's refusal to treat the world, for good or bad, as a given and completed whole. For not only is what we call the real world always a selection from a larger whole from which we have ventured to exclude great masses of irrelevance, but every day brings fresh experience, and may bring fresh enlightenment. And since man has always an interest in improving his condition, is it not futile to forbid him to re-make his world as beat he can? Why prematurely claim to have reached finality, when unexpected novelties may shatter any system before it is even completed? Our world is plastic, it is most 'really' what we can make of it, and the process of our making is not ended. Whether a decree of Fate has fixed any ultimate limits to our efforts we have no means of knowing, and no occasion to assume. Is not our wisest course, then, to persist in trying? It is bad method ever to despair of knowing what we need.

For good or ill, the world with which the Humanist contends is always a world that reveals itself to him. Reality, as it is assumed, presumed, or guessed to be 'in itself,' apart from our experience of it, is cancelled from his reckonings. For he cannot discover how he (or anyone) can get any 'knowledge' or 'intuition' which transcends all human faculties. The theories of metaphysicians on these lofty themes he regards as personal postulates which, in so far as they cannot be subjected to the pragmatic method, must remain open questions. Human experience does not warrant such gratuitous demands. It confirms neither the rigid system of unchanging fact which realism postulates (seeing that the only facts that science speaks of are ever changing in its progress), nor finds its problems, conflicts, and errors credible as a reflexion of any Universal Mind, unless Idealism ultimately repudiates the sanity of its Absolute.

The superiority of Humanism, then, lies in this, that it does not discourage human enterprise by assuming that the real is completely rigid and eternally achieved without regard to human effort. In the drama that unrolls reality, every man, it teaches, has a duty and a power to play his humble but essential part. Humanism is neither an Optimism nor a Pessimism—both of which must consistently, in their extreme form, deny that reality can be improved—but concedes to man the right and duty to improve the world. It impresses us with the necessity of acting, it vindicates the procedure of acting on our hopes, it shows us how we may correct our errors, and so gives reasons for our faith in the possibility of Progress.

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