

# THE MONIST

A QUARTERLY MAGAZINE

DEVOTED TO THE PHILOSOPHY OF SCIENCE

○ 01213

VOLUME XXI.

CHICAGO  
THE OPEN COURT PUBLISHING COMPANY

1911

*Reprinted with the permission of the original publishers*

KRAUS REPRINT CORPORATION  
New York  
1966

THIS PAGE LEFT BLANK INTENTIONALLY

## FROM PROTAGORAS TO WILLIAM JAMES.

NOW that the big heart is still and the voice of the Master is silent—the Master who since the death of the great Socrates himself is unsurpassed in the philosophic inspiration he imparted to the youth of his age—friendship and justice alike require that we shall give such nurture and correction to his favorite child as loyalty to the past and the needs of the future may dictate. Let us try to examine briefly the significance of the doctrine of pragmatism and then redefine it in terms of our own insight.

### I.

It is a long stretch historically from Protagoras to William James. Yet critics have not been slow in pointing out the similarity between the doctrine of the founder of ancient humanism and the pragmatic movement of today. In this the critics have spoken truer than they knew. For historical research has now made clear that Protagoras was no subjectivist, as was so long supposed from a misinterpretation of Plato, but a genuine empiricist. I agree in the main with Gomperz's results in his treatment of Protagoras.<sup>1</sup> But I believe that these results, with proper interpretation, can be derived from Plato, especially the Theaetetus, which Gomperz discards. This incidentally throws valuable light on the Protagorean authorship of the anonymous work entitled "The Art." On the basis of this new interpretation of Protagoras, we may indeed adopt the first sentence of Protagoras's work on truth as a fair

<sup>1</sup> *Greek Thinkers*, Vol. I, 438-475.

epitome of modern pragmatism: "Man is the measure of all things, of those which are that they are and of those which are not that they are not." Or to use Goethe's paraphrase: "We may watch nature, measure her, reckon her, weigh her, etc. as we will. It is yet but our measure and weight, since man is the measure of things."

It is a commonplace now that human nature must be the starting point for all our theories concerning reality. We can only speak of those things as existent that make a difference to human nature, either directly as immediate experience or indirectly as assumptions needed to account for such immediate experience as our perception with its microscopes and telescopes furnishes us. If things make no difference directly or indirectly, perceptually or conceptually, to human nature, they are mere fictions, belong in a world of centaurs and mermaids. At any rate we cannot say whether they are or are not.

And what is true in regard to the *existence* of things holds equally in regard to their *properties* and *values*. These, too, must be regarded as included in Protagoras's thesis, for the doctrine of the functional relation of qualities and values to human nature is distinctly attributed to Protagoras in the dialogue by that name. The doctrine of the relativity of values Protagoras inherited from Heraclitus, who showed that values depend upon the relation of the object to the specific will, whether that of ass, or ox, or fish, or hog, or surgeon. "Asses would rather have straw than gold."<sup>2</sup> Relativity of values to the will does not mean subjectivity of values. We can predict values for definite wills. We know what the ox and ass want, under definite conditions. We must judge the values and properties of things, as well as their existence, from the differences they make to human nature in varying contexts. Things are colored, extended, sweet or bitter; they are

<sup>2</sup> See Fragments 51-58, Burnet, *Early Greek Philosophers*, p. 137.

pleasant or unpleasant, beautiful or ugly, because they belong in a context with conscious human nature. Things or individuals have those properties that we must acknowledge in order to adjust ourselves to our environment or realize our purposes. To speak of a property that makes no difference directly or indirectly to human nature, is to mistake fancy for reality. There is no property in the abstract, no good in general. In this Socrates and Protagoras agree.

So far modern pragmatism and Protagoras are at one. They are at one, too, in applying this criterion to all types of existence, physical or psychological, natural or supernatural. Knowledge everywhere must be based upon evidence as furnished through human experience. "In respect to the gods," says Protagoras, "I am unable to know either that they are or that they are not, for there are many obstacles to such knowledge, above all the obscurity of the matter and the life of man, in that it is so short." We must know the existence and properties of the supernatural as we know nature—by evidence. To be sure, in our conception of experience as race experience we are able to eke out somewhat further the evidence that Protagoras found insufficient in individual experience. Individual experience is supplemented by further historic experience in trying out the hypothesis. But human nature still remains the measure.

We know, too, that what differences shall exist for us vary vastly with the efficiency of our tools, perceptual and conceptual. The rings of Saturn or the properties of radium only make a difference to human nature with improved tools, not only in the way of telescopes and microscopes, but in the way of scientific conceptions. Considering the limitations of our powers of perception as compared with the complexity of the objects, this leaves sufficient room for scientific agnosticism. This agnosticism, how-

ever, is one of degree, not of kind. To the extent that we know the properties of things, we must believe that they are such as we must take them. To say, then, that all we know must be known from the difference it makes to human experience must be accepted as an evident, even if tautological, truism. Tautology it seemed even to Aristotle. But, if it is logical tautology, it marks, both in ancient and modern times, decidedly a new psychological step in the development of human consciousness, a step so striking that its recent re-discovery has been well-nigh epoch-making.

## II.

But, if human nature is to be taken as the starting point and measure, we must first of all define human nature. Here again the problem is old, and we must strive to learn from the past. Not to orient ourselves with reference to the past is to talk like drunken men or men suddenly awake. A great deal of confusion and misunderstanding could have been obviated in the recent pragmatic discussion and a great deal of energy economized on both sides, if those taking part in it had taken pains to read Plato's Theaetetus.

If things exist and are what they are because of the differences they make to human nature, then what is human nature or in what respect must they make a difference? Protagoras in setting the new program, so revolutionary in philosophic investigation, failed, so far as we know, to define human nature. This failure has probably a twofold root. One root is the inadequacy of his psychological tools. Thought and perception were not as yet clearly differentiated. This we can see from the fragments of Empedocles. Thought and perception here alike depend upon effluences and the action of like upon like. The concept has not yet been discovered. This is the immortal contribution of Socrates and Plato. It is this lack of distinction that Plato

feels when he says in the Theaetetus that "perception and sight and knowledge are supposed to be the same."

But another, and still more significant reason, we find in the problem which Protagoras sets himself. We learn from Porphyry that Protagoras in his great work on "Truth" directed his shafts against the Eleatics.<sup>3</sup> In other words, the bitter struggle of Protagoras, as of his modern successors, was with the intellectualists. Only the Eleatics were no milk and water intellectualists. They had the courage of their convictions. In Parmenides, the venerable founder of the school, they had their unequivocal platform: "For it is the same thing that can be thought and that can be." Thought coerces being. Zeno had riddled the world of perception with his brilliant dialectic, and Melissos had drawn the consequences of the logic of his predecessors: "Wherefore it ensueth that we neither see nor know the many." It was this arrogant confidence in *a priori* thought and contempt for sense that Protagoras set himself to refute.

We cannot wonder, then, that Protagoras seemed to his critics to neglect thought and to place a one-sided emphasis upon the immediate. Here again history has repeated itself. But it seems less of an omission when we remember that there was no need of emphasizing the importance of thought so far as the Eleatic intellectualists were concerned. Knowledge, Protagoras insists, must proceed from evidence. It cannot be produced *in vacuo* by means of mere logical consistency. The criterion of reality must lie in the consequences in the way of immediate sense experience. Knowledge rests, in the last analysis, upon perception.

For, with the key furnished by Porphyry, we can see the import of the quotations given by Plato in the Theaetetus. The *homo mensura tenet*, which Plato quotes, means

<sup>3</sup>Gomperz, *Greek Thinkers*, Vol. I, p. 450.

that if facts make a sensible difference to human nature, they must be existent, and must be what they seem to be, for the non-existent cannot make any difference to human nature. And again we read: "As Protagoras says: 'To myself I am judge of what is and what is not to me'"—the most unsophisticated can trust his senses. No need of an Eleatic to tell us. And finally: "His words are: 'To whom a thing *seems*, that which *seems* is';" or, in Hegel's phrase, "The essence must appear." Unless the real can appear in experience and be taken at its face value, not as a lying universe, science is impossible. And in this appearance, so far as knowledge is concerned, human nature is a necessary reagent. Such seems to me the meaning of Protagoras. Such is the meaning of modern pragmatism.

Perhaps the best commentary on Protagoras is his own countryman and contemporary, Empedocles, who, with a similar motive, was combating the Eleatics: "Go to now, consider with all thy powers in what way each thing is clear. Hold nothing that thou seest in greater credit than what thou hearest, nor value thy resounding ear above the clear instructions of thy tongue; and do not withhold thy confidence in any of the other bodily parts by which there is an opening for understanding, but consider everything in the way it is clear."<sup>4</sup> Thus must we put nature upon the rack. This is Empedocles's plea for sense evidence; and his belief in the dependence of this sense evidence, both as to kind and to range, upon the conditions of the human body—its substances and pores, did not make him a subjectivist.

Plato's interest, in the Theaetetus, is not in Protagoras's own meaning, but in the psychological and logical consequences which seem to him to be involved—quite unsuspected, as he admits, by Protagoras himself and his disciples. Thus Plato hopes to point a moral to the sub-

<sup>4</sup> Lines 20-24, Burnet's translation.

jectivism in his own day. To make short work of his opponents, Plato groups together several doctrines, the *homo mensura* doctrine of Protagoras, the later doctrine of Theaetetus that knowledge is perception, and the flux theory of the later Heracliteans, all of which Plato gives the brand of relativism, thus producing confusion in the mind of his successors. And here too history has repeated itself in the hopeless jungle of doctrines to which the term pragmatism has been applied by its critics.

Plato's interpretation of human nature, when he sets himself to "understand" Protagoras is surprisingly individualistic. "Man" must mean "men." He then proceeds to draw the consequences of such an individualistic interpretation. Protagoras, like the early Fichte, had failed to define his ego. He had not been forced like Kant, through a long discussion, to have recourse to "consciousness in general." It was simply natural for him, coming before the individualistic period, and with the spirit of the natural scientists still upon him, to assume human nature to be one: or, as we learn from the dialogue "Protagoras," to regard man as primarily institutional.

But man as man does not have perceptions. So Plato argues. Seeming must always be individual seeming. So many men, so many seemings. If that is the case, the truth of the seeming is not guaranteed by the individual seemings, whether of man or of tadpole, but is the result of a constitution presupposed in the seemings and only to be arrived at by conceptual construction.

If Protagoras failed to define man, he also failed, according to Plato, to define seeming. Scrutiny will show that not all immediate experience is to be equally trusted or to be regarded as equally valid. There are illusions of perception. Immediate perception, therefore, cannot be trusted indiscriminately as evidence of reality. So Plato makes the later relativism do service against the common

sense theory of Protagoras. But pathological cases should not make us discredit perception altogether. In thinking, too, we have error—fallacious and insane thinking. But should we, therefore, discredit all thinking? Plato by his brilliant indiscriminating criticism of perception paves the way for skepticism altogether. While illusions mean a wrong assimilation of a present sense quality with a complex of sense qualities as experienced in the past, this does not prove that we have any other way of ascertaining the conjunctions of qualities except by sense-experience. Seeming must here correct seeming, through further experience. Thought can only furnish a systematic method of procedure, not the actual conjunctions.

Memory and expectancy, Plato further contends, point to a constitution which cannot be expressed in terms of immediate seeming. Insofar as we imply these, we have transcended mere perception. But while this is true, are not memory and expectancy after all built upon seeming—the reoccurrence of an identical content which suggests its own previous context? And does not the value of memory lie in enabling us to draw upon the conjunctions of past seemings in order to meet future seemings?

If you take our feelings of value instead of our perceptions, here too, Plato argues, we cannot speak of measure or validity, so long as we remain on the plain of mere immediacy. A dog-faced baboon has the same claim as Protagoras so far as immediate feelings are concerned. But we must not forget that the rôle of thinking must lie in finding and weighing the implied presuppositions in our immediate sense of values; and that all it can give us, here too, is systematic procedure. It does not create its data, in the case of value any more than in the case of sense qualities.

Thus Plato argues in his own matchless and onesided way, that on the plain of immediacy there can be no ques-

tion of truth or falsity. As seemings they equally exist. The problem of validity arises only with conceptual definition, systematic thinking. He must be a wise man that is to be the measure. Truth cannot be decided on the ground of seeming or duration, but on the ground of its rational coherency. If Plato shows at the end of the *Theaetetus* that his abstract definition of truth is circular, this confession of logical failure is inevitable, on the intellectualist basis, i. e., so long as we try to define truth in strictly formal terms. The difficulty can only be overcome when we state truth pragmatically, that is to say, in terms of procedure or leading.

The individualism, which Plato falls into in criticizing Protagoras, would make all knowledge impossible. It can be turned against thought as well as perception. Thinking, as well as perception, must be the reaction of individual human nature. The individual errs in inference as well as perceptual judgment. Individual thinking must be corrected, as must illusory perception, in the course of future experience, individual and social. In our finite experience, knowledge is a piecemeal affair and seeming must correct and supplement seeming. Absolute truth is for us a limit. Our faith must be a faith in the leading of the seemings, even though we never should arrive. Plato, in his new enthusiasm, exaggerated the concept, as much as Protagoras exaggerated perception. The concept is a splendid tool, but its value lies in its anticipation of reality as sensed and felt, as concrete and individual. Plato, the absolutist, by failing to recognize this fact plays into the hands of the skeptic.

Plato sometimes narrowly escapes giving us the whole truth. In the *Symposium* and *Phaedrus* he arrives at the concept of beauty by discovering *the* beauty in many instances, "going from one to *the* from two to all fair forms, and from fair forms to *the* notions, from fair actions to fair notions, until from fair notions he ar-

rives at the notion of absolute beauty, and at last knows what the essence of beauty is." In other places he employs the method of limits; and again that of mystical appreciation. But the beauties of earth, the immediate facts, are only stepping-stones, the first rungs of the Jacob's ladder which, once ascended, the soul is satisfied and does not need to redescend to test the concept with reference to the facts? Even when it is forced to redescend, as in the case of rulers serving apprenticeship in the world of shadows, it is only to mark the deviations from the Idea, not to verify it. At least such seems Plato's attitude in the Republic, Symposium and the Phaedo.

What misled Plato, apart from his poetic bent of mind, was his passionate interest in one group of concepts, viz., the normative concepts, which he confused with the class concepts which he also regarded as Ideas. In the case of the normative ideals or limits, it does seem as though they must be primarily *a priori*—only elicited by the midwife experience. For without our ideal demands or instincts for meaning and beauty, we would not seek for meaning, for unity, or for order within the chaotic world of the immediate. This formal interest came to dominate largely the ancient world through the influence of Plato and the new ethical and religious spirit of the age.

In Protagoras and Plato we have the two poles of the problem of knowledge. It is the merit of Protagoras to have shown that there can be no knowledge without the evidence of immediate experience. What seems must be, or science is impossible. It is the merit of Plato to have shown that there can be no knowledge without systematic thinking. Without concepts sensation is blind. Protagoras may have over-emphasized the place of sense perception in investigation. Plato slighted the perpetual data and was inclined to let the mill of reason grind *in vacuo*. Each developed his brilliant half-truth as a corrective to

the prevailing tendency of the age, Protagoras in opposition to the apriorism of the Eleatics, Plato against the immediatism of Aristippus. If they did not emphasize the other side it was for the reason that it is not necessary to carry coals to Newcastle. By such zig-zag the history of thought progresses:

## III.

It remained for modern science, in its brilliant history, to show the importance of both hypothesis and immediacy. Data become science only when illuminated by thinking or hypothesis. Science is the constructive or systematic functioning of human nature, not mere perceptual continuity with its environment. It is the purpose of science to construct or build out, on the basis of past experience, a conceptual net-work or differentiation of purposes to meet the variety of properties and changes in the environment. The equivalents furnished by our scientific system may be artificial enough, tools merely for our anticipation and mastery of the processes, as in the physical sciences; or they may be of a piece with the world with which they deal and lead to understanding and appreciation, as in social relations; but in any case our ideal construction must be verified with reference to the ongoing of experience.

To be sure this building out of immediacy has been recognized in natural science primarily. And here we have lagged behind the Greeks. The immediacy of perception, bound up with the specific energies of the senses, is the only immediacy adequately taken account of by modern science. The other type of immediacy, that of feeling and will-attitudes, involving physiologically, beside the specific cerebral tendencies, the more diffuse changes of the motor, sympathetic and vascular systems, has been largely ignored. Yet the *values* of objects must be regarded as

equally significant with their properties. If the sense qualities are functional relations of human nature to its objects, so also are values. Objects no more have qualities in the abstract than values, and by value I mean the satisfaction which objects can furnish to our will as contrasted with the sense differences which they can make. If the world of properties is capable of being taken in an orderly way, so also is the world of values. And the later Sophists were quite right in saying that if one is subjective, so is the other. What we must recognize is that if, by means of hypothesis and experiment, we can build out the immediacy of sense qualities into an objective world, we can just as surely build out an objective world of worth from the immediacy of our longings and demands with their implied formal presuppositions. The immediacy of feeling, too, has cognitive significance and can be made to yield, with freedom and intelligence of development, an objective order of worth, as surely as natural science, out of the immediacy of sense, can build the order of nature. This has been and is being done in the esthetic and religious development of the race. The pragmatic method applies to religion as much as to science; and though one life is too short to know much either about nature or the gods, the experience of the race must supplement and correct the experience of the individual. The solidarity of the race is presupposed in either case.

We may define pragmatism as scientific method conscious of its own procedure. The scientist has not always known what he was about. Sometimes he has emphasized the essentially innate nature of truth with Descartes and his followers. Sometimes he has demanded pure perceptions and a *tabula rasa*. Even when he has furnished good canons of procedure, he has not always been awake to what he has been doing. Pragmatism is not the invention of a new method; it does not furnish any new hypothesis; but

it insists that the scientific spirit, of tentative hypothesis and verification shall dominate all our investigation, not only naturalistic, but philosophic as well. We must shear the luxuriance of imagination to fit the facts. Life must be given to winged thought by touching the earth of evidence again. And unless the hypothesis, however ingenious, helps us to anticipate and control, or understand and appreciate, the onrushing stream of human experience, it is not science but fiction, no matter how internally consistent it may be. The Newtonian equations, the religious beliefs, must terminate in the intended facts. Failing this, ideal construction must set to work afresh, until at least greater approximation is reached. An hypothesis, whether of atoms or morals, God or devil, is true because it works.

We do not wonder over the disappointment at this lack of novelty of the pragmatic method. No doubt Dr. Paul Carus expresses a general feeling when he says: "If pragmatism, as commonly understood, were truly nothing but another name for 'scientific method,' it would not have anything new to offer." But what the critic forgets is that pragmatism is the baptism of a new consciousness as to the meaning of science. It makes definite and articulate what was only implied before. Few great reformations have been original, to any great extent, in their intellectual content. Their originality has lain mostly in the simplicity and directness of their aim—the clearness and intensity of their emphasis. And there is a good deal of difference between the common talk of agreement, begotten between intellectual sleeping and waking, and the clear consciousness of what the agreement of an idea with its object means—the termination or leading of an idea into its intended facts. It emphasizes negatively that there is no other criterion of validity, beside conduct; that mystical feeling, however subjectively satisfactory, must, in order

to be proven true, submit to the test of the procedure of experience; and that no *a priori* conviction, no dogmatic insistence upon the inconceivability of the contrary, can have anything more than subjective significance, unless it terminates in the systematic experience of the individual and the race. They are no substitutes, in any case, for investigation and have, as feelings, attached to all sorts of ideas. We have but a single criterion of truth—the procedure of experience.

Does truth, as thus conceived, seem transient, provisional and pluralistic? This is only because we have become intellectually honest—conscious of our poverty. Truth has just as much unity and constancy as its use in experience indicates. Grand assumptions about it, do not increase either its permanency or reality. Its permanency and adequacy to reality must be tested by our ability to take reality that way. Its leading, so far as real, is not arbitrary but due to its seizing upon the real characteristics of its intended object, whether eternal or transient.

If pragmatism is essentially the scientific spirit, there is always need of a renaissance of the pragmatic consciousness in science. The authority of great names—the Archimedeses and Aristotles and Newtons; the impressiveness of tradition and technique, are too apt to overshadow the real, inductive spirit. We read facts out of court, or at least refuse to investigate, because the facts or alleged facts are supposed to be contrary to "laws," the only status of which is that of generalizations from facts. How great a rôle the *a priori* inconceivable, as we are pleased to call our intellectual prejudices, still plays in science! If it is no longer the inconceivability of the antipodes, it is the inconceivability of action at a distance, the inconceivability of mind influencing body, etc. When shall we learn that the best test of whether a fact *can* happen is whether it *does* happen and that it is the province

of reason not to *prescribe* the conditions, but to discover the conditions under which events happen? If our intellectual models make our procedure impossible, we must revise the models. If this is difficult in science, how much more in religious and legal practice. What a reform in science, law and religion alike, if we once had the courage to drop hypotheses which make no difference to our procedure. The value of conceptual technique is precisely to furnish such leading as will terminate in the facts. If it substitutes an abstract model for the facts, it should not be for the sake of hypostatizing the model, but for the sake of better anticipating the facts.

## IV.

In its general emphasis, as well as in its thesis, modern pragmatism follows closely its ancient forbear. The scope of hypothesis or creative imagination has been largely neglected by modern pragmatists, as it was by Protagoras of old, and for similar polemic reasons. It is obviously so neglected in the thesis that truth consists in its consequences. It would be at least equally true to say that truth consists in hypothesis or in certain instinctive demands for unity and simplicity, for without either there could be no such thing as truth. We should be simply staring at things. We must not neglect the creative factor in knowledge—the building out by constructive imagination, as prompted by certain fundamental instincts, beyond the immediate, beyond sensations and feelings. It is true that this building out must be supported in the end by evidence, by consequences of immediate experience, but it is also true that without this building out of creative imagination, we would remain hopelessly swamped in the slush of subjectivism. On the other hand, mere hypothesis, while it may have its subjective value, cannot by itself give us objective truth. It must be tested by evidence, as well as by

the subjective satisfaction which it gives. And pragmatism has done well to insist upon this truth, as against the subjective imagination of such philosophies as Hegelianism.

In two important respects modern pragmatism has the advantage over ancient. One is in its superior psychological tools. It has shown more clearly than before, especially through William James, the teleological nature of the thought process, its connective value in the flow of experience, how ideas lean on facts and how facts are organized by means of ideas. The other advantage of modern pragmatism is its evolutionary and racial consciousness. To a large extent it is the outgrowth of the Darwinian spirit. It is a theory of the survival of hypotheses—those surviving which fit experience. But a theory of elimination, important as it is, cannot by itself account for knowledge, any more than the doctrine of the survival of the fittest can account for life. The variations themselves must be understood through their structural continuity with the past. In the case of knowledge this continuity becomes an instinctive or "physical heritage" in the form of certain demands, tendencies or needs. And it also becomes a psychological continuity or an imitative dependence upon the institutional life of the race, the "social heritage." The ideal variations or purposes must find their explanation in this twofold background, i. e., the biological tendencies as becoming conscious of themselves in attempting to assimilate the social heritage, and use it in the service of the ever new problems of life. From this process emerge the new purposes, guesses or hypotheses. These ideal constructions or demands must be tried out with reference to further experience; and those will survive which afford an advantage in meeting the intended object. More than one hypothesis may work for the time being; and at a certain stage of development a cruder hypothesis may work better than a conceptually more perfect one. The

crude four elements of Empedocles seemed to work better for the time being than the ingenious hypothesis of Anaxagoras or even than the atomic theory of Democritus. The axiom of an eye for an eye and anthropomorphic gods worked better at a certain stage of development than the golden rule and spiritual theism. In the long run, however, the workability of an hypothesis must mean correspondence with the reality which it intends—the seizing upon its identities for the guidance of conduct.

Beliefs, instinctive or articulate, are the grist which the pragmatic mill must grind or else grind itself. Human nature, conditioned as it is by its biological and social background, constructs its belief-worlds to supplement its inner needs. It is this impulse to create belief-worlds which has made religion advance by ever new variations and eliminations from fetichism and nature-worship to ethical monotheism; which has made science advance from the hypothesis of Thales that all is water, to our modern complex physical and chemical theories. These belief-worlds are not only thrown about us by ourselves, in our individual capacity, to be cozy in our world. They are first of all thrown about us by the race which wraps us snugly in the swaddling clothes of its own making. Else we would all start naked, to cover ourselves with fig leaves. Every scientist would be a Thales. It is only in the course of individual experience, if at all, that we make the old thought-clothes correspond with the new individual preferences.

## v.

Knowledge, we have seen, must mean the differences that stimuli make to reflective human nature. All experience must be assessed from the reflective level—must issue in articulate judgments, if we are to have truth. Perhaps we may, in the light of the preceding discussion, venture to offer the following, tentative definition of truth:

Truth consists in the differences which objects make to the reflective conduct of human nature, as in its evolutionary process, it attempts to control and understand its world. This definition of truth recognizes the contribution of both the empiricists and rationalists, Protagoras and Plato. Both hypothesis and evidence, reflection and immediacy, are necessary to truth. It recognizes, moreover, the finitude of truth as an adjustment to an infinite process.

Past misunderstandings, however, lead me to think that the pragmatic doctrine of truth needs more explicit definition at two points. One has to do with the significance of the term conduct, the other has to do with the relation of pragmatism to nominalism.

First a word as regards the significance of the term conduct. My own conception of pragmatism is that its definition of truth in terms of conduct is fundamental. In this sense it is a "practical" theory of truth. It has to do with the procedure of thought, the control of our ideas in relation to an intended object. But here there has been considerable confusion. The original use of the term pragmatism by C. S. Peirce had to do with laboratory conduct specifically—the procedure in the experimental verification of an hypothesis. In James, Schiller and Dewey the emphasis has been on biological conduct—the attainment of certain goods on the part of the organism. No doubt truth is tested in part by this ability to control the environment for our specific purposes. But truth needs not be practical or instrumental in this external sense. Its leading may be of a formal kind, as in mathematical procedure. Its aim, too, may be that of understanding and sympathy, rather than use, as in our striving to know other egos. I have used conduct in a wider sense—including the conduct of the understanding as well as biological conduct.<sup>6</sup>

<sup>6</sup> *Journ. of Philosophy*, "What Pragmatism Is and Is Not," Vol. V, pp. 627 and 628.

Truth must be measured in terms of the reflective procedure of our entire human nature in realizing its tendencies, formal or practical. It still remains true, on this more inclusive definition, that the truth of an idea consists in its leading, its ability to guide in the direction of its intended object, whether a chemical compound or an algebraic root. Thus taken, the term pragmatism will be true both to its Greek derivation and to all the requirements of logic. The rules that the will must acknowledge as governing this procedure of truth, I have discussed elsewhere.<sup>7</sup>

As regards the relation of pragmatism to nominalism, there has been considerable wobbling between the definition of truth in terms of leading on the one hand, and in terms of particulars on the other. I believe these to be incompatible definitions. If truth consists in the sum of particulars, there can be no leading. A photographic or cinematographic copy would be quite useless for purposes of conduct. But truth can never lie in the sum of particulars or their mere external association. Who wants to count the sands on the seashore or the leaves of the trees? It would be quite worthless, even if not practically impossible. The leading is made possible by the thread of identity—the ability to substitute certain constant characteristics for the motley world of facts and changes and thus to manipulate it in the service of our purposes. From the taint of mediæval nominalism, deliver us.<sup>8</sup> With such an understanding as regards the meaning of pragmatism, it ought to proceed more efficiently on its career of simplifying and unlocking the problems of life, theoretical and practical.

JOHN E. BOODIN.

UNIVERSITY OF KANSAS.

<sup>7</sup> See *Phil. Rev.*, "The Nature of Truth," Vol. XIX, 395-417.

<sup>8</sup> In this I am happy to find myself in agreement with my friend, Dr. Horace Meyer Kallen. (See *Journ. of Philosophy*, "The Affiliations of Pragmatism," Vol. VI, pp. 657 and 658.)