

The most complete manuscripts of the Peirce collection include copies of the "Lectures on Pragmatism" which were delivered privately to a circle of friends in Cambridge and of the Lowell Lectures on Logic of 1903-4. It was these latter which James described as "flashes of brilliant light relieved against Cimmerian darkness—"darkness" indeed to James as to many others must have seemed those portions on "Existential Graphs" or "Abduction." Yet it seems strange that the very striking lectures on "Induction," "Probability," "Chance," and "Multitude" should have attracted nothing more than a passing notice.

The two works, which, if they could ever have been completed, were intended by Peirce to be the proper fruits of his studies, were a "History of Science" and a "Comprehensive Treatise on Logic." Both of these remain unfinished; and the value of his fragmentary manuscripts will largely depend upon the extent to which future editorial work can bring into unity the very considerable fragments which his remains contain of the studies which were intended to form part of these works. So far as his erudition and inventiveness were conditions for the writing of these two intended books, Peirce possessed both these characters most abundantly. No greater mind has ever appeared in America in respect of the powers needed for the writing of these two projected works. No more ample erudition has ever existed amongst us regarding the topics which were here in question.

Of especial importance from an historical standpoint are the writings of Peirce which deal with Aristotle and with the scholastic philosophy. Aristotle, Peirce read in the original carefully and for many years, and his manuscripts contained many original expressions of his independent opinion about the problems connected with the interpretation of the Aristotelian philosophy. For the scholastic philosophy Peirce always had a very great interest. Duns Scotus was among his favorites, both as logician and as metaphysician. He was not attracted to the Scholastics by any of their theological relations, but by an interest in their skilfully devised vocabulary, and in the beautiful array of their word conceptions. A treatise which I recently found among his manuscripts entitled "Duns Scotus and Occam" sets forth very clearly the issues of realism and nominalism in the light of modern thought and goes far towards showing that many contemporary philosophers, as, for instance, Bertrand Russell, are not so far away from scholasticism as the calendar might indicate.

The following constitutes a list of the titles of the more important among the Peirce manuscripts. It is far from being complete, yet it may serve to suggest the varied and in many respects original nature of Peirce's philosophical and scientific researches.

"On Retrodution, Induction, and Abduction." "Minute Logic." "Treatise in Logic": Chapter I, "Prelogical Ideas"; Chapter IV, "Ethics"; Chapter VI, "The Three Kinds of Signs"; Chapter VII, "The Aristotelian Syllogistic"; Chapter VIII, "The Algebra of the Copula"; Chapter XI, "On Logical Breadth and Depth"; Chapter XII, "Simplification of Dual Relatives"; Chapter XIV, "Quantification of the Predicate"; Chapter XV, "Existential Graphs." "Synecism." "Lectures on the British Logicians." "Positivism." "Aristotle on Categories." "Molecules and Molecular Theory." "Prospect of Air Sailing." "On Representation." "On small Differences in Sensation." "Notes on Royce's World and Individual." "Illustrations of Dynamics." "Theory of Numbers." "Refutation of Transcendentalism." "A Priori and A Posteriori." "The Seven Systems of Metaphysics." "Quantity and Quality." "On Multitude and Number." "Logic of History." "Lectures on Kant." "On Mind and Matter." "Logic of Continuity." "On the Associations of Ideas." "Spinoza." "Hume—a Critical History of Logical Ideas."

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### THE PRAGMATISM OF PEIRCE

THE term pragmatism was introduced into literature in the opening sentences of Professor James's California Union address in 1898. The sentences run as follows: "The principle of pragmatism, as we may call it, may be expressed in a variety of ways, all of them very simple. In the *Popular Science Monthly* for January, 1878, Mr. Charles S. Peirce introduces it as follows:" etc. The readers who have turned to the volume referred to have not, however, found the word there. From other sources we know that the name as well as the idea was furnished by Mr. Peirce. The latter has told us that both the word and the idea were suggested to him by a reading of Kant, the idea by the "Critique of Pure Reason," the term by the "Critique of Practical Reason." The article in the *Monist* gives such a good statement of both the idea and the reason for selecting the term that it may be quoted *in extenso*. Peirce sets out by saying that with men who work in laboratories, the habit of mind is molded by experimental work much more than they are themselves aware. "Whatever statement you may make to him, he [the experimentalist] will either understand as meaning that if a

<sup>1</sup> See article on "Pragmatism," in "Baldwin's Dictionary," Vol. II, p. 322, and the *Monist*, Vol. 15, p. 162.

given prescription for an experiment ever can be and ever is carried out in act, an experience of a given description will result; or else he will see no sense at all in what you say." Having himself the experimental mind and being interested in methods of thinking, "he framed the theory that a *conception*, that is, the rational purport of a word or other expression, lies exclusively in its bearing upon the conduct of life; so that, since obviously nothing that might not result from experiment can have any direct bearing upon conduct, if one can define accurately all the conceivable experimental phenomena which the affirmation or denial of a concept could imply, one will have therein a complete definition of the concept, and *there is absolutely nothing more in it*. For this doctrine, he invented the name *pragmatism*."

After saying that some of his friends wished him to call the doctrine *practicism* or *practicalism*, he says that he had learned philosophy from Kant, and that to one "who still thought in Kantian terms most readily, *praktisch* and *pragmatisch* were as far apart as the two poles, the former belonging to a region of thought where no mind of the experimentalist type can ever make sure of solid ground under his feet, the latter expressing relation to some definite human purpose. Now quite the most striking feature of the new theory was its recognition of an inseparable connection between rational cognition and human purpose."<sup>2</sup>

From this brief statement, it will be noted that Peirce confined the significance of the term to the determination of the meaning of terms, or better, propositions; the theory was not, of itself, a theory of the test, or the truth, of propositions. Hence the title of his original article: "How to Make Ideas Clear." In his later writing, after the term had been used as a theory of truth,—he proposed the more limited "pragmaticism" to designate his original specific meaning.<sup>3</sup> But even with respect to the meaning of propositions, there is a marked difference between his pragmaticism and the pragmatism of, say, James. Some of the critics (especially continental) of the latter would have saved themselves some futile beating of the air, if they had reacted to James's statements instead of to their own associations with the word "pragmatic." Thus James says in his California address: "The effective meaning of any philosophic proposition can always be brought down to some particular conse-

<sup>2</sup> Kant discriminates the laws of morality, which are *a priori*, from rules of skill, having to do with technique or art, and counsels of prudence, having to do with welfare. The latter he calls *pragmatic*; the *a priori* laws *practical*. See "Metaphysics of Morals," Abbott's trans., pp. 33 and 34.

<sup>3</sup> See the article in the *Monist* already mentioned, and another one in the same volume, p. 481, "The Issues of Pragmaticism."

quence, in our future practical experience, whether active or passive; the point lying rather in the fact that the experience must be *particular*, than in the fact that it must be *active*." (Italics mine)

Now the curious fact is that Peirce puts more emphasis upon practice (or conduct) and less upon the particular; in fact, he transfers the emphasis to the general. The following passage is worth quotation because of the definiteness with which it identifies meaning with both the future and with the general. "The rational meaning of every proposition lies in the future. How so? The meaning of a proposition is itself a proposition. Indeed, it is no other than the very proposition of which it is the meaning: it is a translation of it. But of the myriads of forms into which a proposition may be translated, which is that one which is to be called its very meaning? It is, according to the pragmaticist, that form in which the proposition becomes applicable to human conduct, not in these or those special circumstances nor when one entertains this or that special design, but that form which is most applicable to self-control under every situation and to every purpose." Hence, "it must be simply the general description of all the experimental phenomena which the assertion of the proposition virtually predicts." Or, paraphrasing, pragmatism identifies meaning with formation of a habit, or way of acting having the greatest generality possible, or the widest range of application to particulars. Since habits or ways of acting are just as real as particulars, it is committed to a belief in the reality of "universals." Hence it is not a doctrine of phenomenalism, for while the richness of phenomena lies in their sensuous quality, pragmatism does not intend to define these (leaving them, as it were, to speak for themselves), but "eliminates their sential element, and endeavors to define the rational purport, and this it finds in the purposive bearing of the word or proposition in question." Moreover, not only are generals real, but they are physically efficient. The meanings "the air is stuffy" and "stuffy air is unwholesome" may determine, for example, the opening of the window. Accordingly on the ethical side, "the pragmaticist does not make the *summum bonum* to consist in action, but it to consist in that process of evolution whereby the existent becomes more and more to embody those generals . . . ; in other words, becomes, through action an embodiment of rational purports or habits generalized as widely as possible."<sup>4</sup>

The passages quoted should be compared with what Peirce has to say in the Baldwin Dictionary article. There he says that James's

<sup>4</sup> It is probably fair to see here an empirical rendering of the Kantian generality of moral action, while the distinction and connection of "rational purport" and "sensible particular" have also obvious Kantian associations.

doctrine seems to commit us to the belief "that the end of man is action—a stoical maxim which does not commend itself as forcibly to the present writer at the age of sixty as it did at thirty. If it be admitted, on the contrary, that action wants an end, and that the end must be something of a general description, then the spirit of the maxim itself . . . would direct us toward something different from practical facts, namely, to general ideas. . . . The only ultimate good which the practical facts to which the maxim directs attention can subserve is to further the development of concrete reasonableness. . . . Almost everybody will now agree that the ultimate good lies in the evolutionary process in some way. If so, it is not in individual reactions in their segregation, but in something general or continuous. Synchism is founded on the notion that the coalescence, the becoming continuous, the becoming governed by laws, the becoming instinct with general ideas, are but phases of one and the same process of the growth of reasonableness. This is first shown to be true with mathematical exactitude in the field of logic, and is thence inferred to hold good metaphysically. It is not opposed to pragmatism . . . but includes that procedure as a step."

Here again we have the doctrine of pragmatism as a doctrine that meaning or rational purport resides in the setting up of habits or generalized methods, a doctrine passing over into the metaphysics of synchism. It will be well now to recur explicitly to Peirce's earlier doctrine which he seems to qualify—although, as he notes, he upheld the doctrine of the reality of generals even at the earlier period. Peirce sets out, in his article on the "Fixation of Belief,"<sup>6</sup> with the empirical difference of doubt and belief expressed in the facts that belief determines a habit while doubt does not, and that belief is calm and satisfactory while doubt is an uneasy and dissatisfied state from which we struggle to emerge; to attain that is, a state of belief, a struggle which may be called inquiry. The sole object of inquiry is the fixation of belief. The scientific method of fixation has, however, certain rivals: one is that of "tenacity"—constant reiteration, dwelling upon everything conducive to the belief, avoidance of everything which might unsettle it—the will to believe. The method breaks down in practice because of man's social nature; we have to take account of contrary beliefs in others, so that the real problem is to fix the belief of the community; for otherwise our own belief is precariously exposed to attack and doubt. Hence the resort to the method of authority. This method breaks down in time by the fact

<sup>6</sup> *Popular Science Monthly*, Volume XII, pp. 1-15. It is much to be desired that the series of articles be printed in book form. Discussion since 1878 has caught up with Peirce, and his views would awaken much more response now than when published.

that authority can not fix all beliefs in all their details, and because of the conflict which arises between organized traditions. There may then be recourse to what is "agreeable to reason"—a method potent in formation of taste and in esthetic productions and in the history of philosophy,—but a method which again fails to secure permanent agreements in society, and so leaves individual belief at the mercy of attack. Hence, finally, recourse to science, whose fundamental hypothesis is this: "There are real things, whose characters are entirely independent of our opinions about them; those realities affect our senses according to regular laws, and . . . by taking advantage of the laws of perception, we can ascertain *by reasoning* how things really are, and any man, if he have sufficient experience and reason enough about it, will be led to the one true conclusion."<sup>7</sup>

It will be noted that the quotation employs the terms "reality" and "truth," while it makes them a part of the statement of the *hypothesis* entertained in scientific procedure. Upon such a basis, what meanings attach to the terms "reality" and "truth?" Since they are general terms, their meanings must be determined on the basis of the effects, having practical bearings, which the object of our conception has. Now the effect which real things have is to cause beliefs; beliefs are then the consequences which give the general term reality a "rational purport." And on the assumption of the scientific method, the *distinguishing* character of the *real* object must be that it tends to produce a single universally accepted belief. "All the followers of science are fully persuaded that the processes of investigation, if only pushed far enough, will give one certain solution to every question to which they can be applied." "This activity of thought by which we are carried, not where we wish, but to a fore-ordained goal, is like the operation of destiny. . . . This great law is embodied in the conception of truth and reality. The opinion which is fated to be ultimately agreed to by all *who investigate*, is what we mean by the truth, and the object represented in this opinion is the real." In a subsequent essay (on the "Probability of Induction") Peirce expressly draws the conclusion which follows from this statement; viz., that this conception of truth and reality makes everything depend upon the character of the methods of inquiry and inference by which conclusions are reached. "In the case of synthetic inferences we know only the degree of trustworthiness of our proceeding. As all knowledge comes from synthetic inference, we must also infer that all human certainty consists merely in our knowing that the processes by which our knowledge has been derived are such as

<sup>6</sup> *Ibid.*, p. 11.

<sup>7</sup> *Ibid.*, pp. 298-300, *passim*.

must generally have led to true conclusions"<sup>8</sup>—true conclusions, once more, being those which command the agreement of competent inquiries.

Summing up, we may say that Peirce's pragmatism is a doctrine concerning the meaning, conception, or rational purport of objects, namely, that these consist in the "effects, which might conceivably have practical bearings, we conceive the object of our conception to have. Then, our conception of these effects is the whole of our conception of the object."<sup>9</sup> "Our idea of anything is our idea of its sensible effects," and if we have any doubt as to whether we really believe the effects to be sensible or no, we have only to ask ourselves whether or no we should act any differently in their presence. In short our own responses to sensory stimuli are the ultimate, or testing, ingredients in our conception of an object. In the literal sense of the word pragmatist, therefore, Peirce is more of a pragmatist than James.

He is also less of a nominalist. That is to say, he emphasizes much less the *particular* sensible consequence, and much more the habit, the generic attitude of response, set up in consequence of experiences with a thing. In the passage in the Dictionary already quoted he speaks as if in his later life he attached less importance to action, and more to "concrete reasonableness" than in his earlier writing. It may well be that the relative emphasis had shifted. But there is at most but a difference of emphasis. For in his later doctrine, concrete rationality, means a change in existence brought about *through* action, and through action which embodies conceptions whose own specific existence consists in habitual attitudes of response. In his earlier writing, the emphasis upon habits, as something generic, is explicit. "What a thing means is simply what habits it involves."<sup>10</sup> More elaborately, "Induction infers a rule. Now the belief of a rule is a habit. That a habit is a rule, active in us, is evident. That every belief is of the nature of a habit, in so far as it is of a general character, has been shown in the earlier papers of this series."<sup>11</sup>

The difference between Peirce and James which next strikes us is the greater emphasis placed by the former upon the method of procedure. As the quotations already made show, everything ultimately turned, for Peirce, upon the trustworthiness of the procedures of inquiry. Hence his high estimate of logic, as compared with James—at least James in his later days. Hence also his definite rejection of the appeal to the Will to Believe—under the form of what he calls

<sup>8</sup> *Ibid.*, p. 718.

<sup>9</sup> *Ibid.*, p. 293.

<sup>10</sup> *Ibid.*, p. 292.

<sup>11</sup> *Popular Science Monthly*, Vol. XIII., p. 481.

the method of tenacity. Closely associated with this is the fact that Peirce has a more explicit dependence upon the social factor than has James. The appeal in Peirce is essentially to the consensus of those who have investigated, using methods which are capable of employment by all. It is the need for social agreement, and the fact that in its absence "the method of tenacity" will be exposed to disintegration from without, which finally forces upon mankind the wider and wider utilization of the scientific method.

Finally, both Peirce and James are realists. The reasonings of both depend upon the assumption of real things which really have effects or consequences. Of the two, Peirce makes clearer the fact that in philosophy at least we are dealing with the *conception* of reality, with reality as a term having rational purport, and hence with something whose meaning is itself to be determined in terms of consequences. That "reality" means the object of those beliefs which have, after prolonged and cooperative inquiry, become stable, and "truth" the quality of these beliefs is a logical consequence of this position. Thus while "we may define the real as that whose characters are independent of what anybody may think them to be . . . it would be a great mistake to suppose that this definition makes the idea of reality perfectly clear."<sup>12</sup> For it is only the outcome of persistent and conjoint inquiry which enables us to give intelligible meaning in the concrete to the expression "characters independent of what anybody may think them to be." (This is the pragmatic way out of the egocentric predicament.) And while my purpose is wholly expository I can not close without inquiring whether recourse to Peirce would not have a most beneficial influence in contemporary discussion. Do not a large part of our epistemological difficulties arise from an attempt to define the "real" as something given prior to reflective inquiry instead of as that which reflective inquiry is forced to reach and to which when it is reached belief can stably cling?

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#### CHARLES S. PEIRCE AT THE JOHNS HOPKINS

THE keenest pleasure which can offer itself to the university student who is about to grapple with the profoundest thinking that the world has done and is doing is his when he finds himself by chance in the actual presence of one of the creators of the world's store of thought. This had been the happy lot of the students of the

<sup>12</sup> *Popular Science Monthly*, Vol. XII., p. 298.