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CHARLES PEIRCE'S EMPIRICISM



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CHARLES PEIRCE'S EMPIRICISM

JUSTUS BUCHLER

With a Foreword by Ernest Nagel



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PREFACE

If there be a reader who cannot understand my writings, let me tell him that no straining of his mind will help him: his whole difficulty is that he has no personal experience of the world of problems of which I am talking. . . . (3.419).

BERTRAND RUSSELL once complained, of certain present-day thinkers, that they attain clarity at the expense of profundity. Quite the contrary was the case with Peirce, who characterized himself as "a mere table of contents, so abstract, a very snarl of twine". The purpose of the following pages is to clarify Peirce in some measure, partly by restatement, partly by filling the lacunae in his thought with what I take to be its implications. But it cannot be stressed sufficiently that this exposition is limited to the methodological side of his thought, his empiricism, which should emerge fairly well defined from the discussion of what may be regarded as its major constituents, critical common-sensism, pragmatism, and the theory of the formal sciences. For it might otherwise (and might in any case) be held against me that I make little or no mention of metaphysics and of phenomenology, in general, of all that allegedly distinguishes Peirce's originality, imaginativeness and historical penetration.

The most superficial reader has no difficulty detecting the existence of two strains in Peirce, one empirical, the other metaphysical and to a considerable degree extra-empirical. Whether these two strains are ultimately compatible is a question with which I am not concerned except briefly (§ 39). I happen myself to believe that Peirce is primarily an empiricist: there is a good deal in his metaphysics that is incongruous with empiricism, but it seems to me of secondary importance; much, moreover, that appears to be incongruous is in fact not, and can be explained as due to the reverence for traditional philosophy early implanted in him. Professor Dewey has emphasized that "Peirce . . . was an empiricist, with the habits of mind, as

he put it, of the laboratory".¹ But the justification of this exposition does not depend upon acceptance of the view that empiricism is the dominant strain in Peirce. It is necessary only to maintain that the empiricism which is to be found in him can stand on its own feet as a self-sufficient philosophy, and it would seem that this is beyond doubt. For those, then, who hold that Peirce is essentially a metaphysician, what follows will be an abstraction from his writings (and I am content to show that what is abstracted is self-sufficient); for those who hold that Peirce is radically inconsistent, it will simply be an exposition ignoring one side of the inconsistency; and for those, finally, who regard Peirce as essentially an empiricist, it will perhaps be a stimulus to further study of him. Such further study would, I believe, reveal that many of his views which are other than methodological fit the empirical framework; above all, those which constitute his phenomenology or theory of the categories.

Each section in this essay assumes acquaintance with all of the sections that precede it. Some apology may be necessary for the first eight or ten, which I suspect are a little tedious. Unlike the rest, they are concerned primarily with the restatement of actual articles, namely, two of the three papers of 1868. So fundamental to Peirce's empiricism do I consider these papers, that I have felt obliged to give especial attention to the theory of knowledge which they contain. It is worth noting that virtually every principal theme of Peirce's thought is unmistakably present in the earliest of his writings, which, relatively few in number, appear between 1867 and 1871.² The fact that after four

¹ "The Development of American Pragmatism", in *Studies in the History of Ideas*, Vol. II, p. 354.

² These comprise the 1867-8 contributions to the *Proceedings of the American Academy of Arts and Sciences*, the 1868 papers in the *Journal of Speculative Philosophy*, the 1867 review of Venn's *Logic of Chance* in the *North American Review*, the 1870 paper "Description of a Notation for the Logic of Relatives, etc." in *Memoirs of the American Academy*, and the 1871 review of Fraser's edition of Berkeley's *Works* in the *North American Review*.

decades of attempted elaboration and self-correction his work should have remained a table of contents is indicative not, as one might at first think, of the refractory character of his ideas, but of their wealth and force.

My thanks are due to Professor Herbert W. Schneider and Professor John H. Randall, Jr., for their kindness in reading the manuscript and offering acute suggestions. Of equal value were the comments of my friend Dr. Milton K. Munitz. I am most indebted to Professor Nagel, not merely for our interesting conversations on Peirce, but for all that I have gained from him over a long period of time. For me he has always been a standard of sanity in matters philosophical, and I would like to think that I have been able to reflect some degree of this influence.

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FOREWORD

It was the ambition of Peirce to construct a system of philosophy so comprehensive that for a long time to come achievements in all departments of research, in mathematics, in the natural sciences, in history, in sociology, would appear simply as details filling out its outlines. However, whether because of outward circumstance or inner instability, he was no systematic writer; and it is his contributions to logical theory, the least fragmentary of his writings but dealing with issues uppermost in his mind, which assure him a permanent place in intellectual history. He himself relates that he was incessantly occupied with the study of methods of inquiry almost since he had learned to read; and it is this concern with the procedures for acquiring stable beliefs, even more than his technical contributions to mathematics and formal logic, which makes him a vital contemporary influence. He began to publish at a time when Kant, Hegel, the Scottish realists and sensationalistic empiricists dominated Anglo-American philosophy. If the tendencies which these names represent no longer occupy the centre of the contemporary stage, if the conceptions of mind and nature for which they stand no longer seem credible, the change in the climate of opinion is in no small measure due to the direct or indirect influence of Peirce's contributions to the theory of inquiry. James, Royce, Dewey in America, Russell and Ramsey in England, to cite only a few names, and through them an indefinite number of others, are the beneficiaries of Peirce's intellectual labours.

Recent literature in philosophy illustrates the exploitation of two fundamental insights, both of which are integral to Peirce's thought and to the development of both of which he made important contributions: the recognition of the central rôle played by symbols or language in human

behaviour and knowledge; and the recognition that human knowledge is an achievement of biological organisms functioning in social contexts. The first has been accompanied by a renaissance of researches in formal logic oriented toward mathematics, and by a renewed consciousness of the need for examining the conditions for significant discourse; the second has supplied a powerful impetus for freeing theories of knowledge and science from the preconceptions of individualistic, atomic psychology. Nevertheless, thinkers who contribute to the development of both tendencies are rare; for the most part, workers in these fields either ignore the researches of others who cultivate an alternative approach, or exhibit what are frequently well-founded suspicions of the uses to which these researches have been put by partisans of philosophic schools. The advantages of pursuing specialized interests are manifest in the marked progress made within each field of interest since the turn of the century. None the less, the development of these specialized studies has itself persuaded many of those who profess them, that these distinct approaches to the theory of inquiry are intimately related and require to be supplemented by one another. Indeed, the construction of a comprehensive logic conceived as a theory of inquiry, which would assimilate the findings of a biologico-social approach as well as the brilliant results of modern formal researches, has come to be recognized as one of the pressing needs of the day. In spite of some notable essays in this direction within recent years, such a logic is still incomplete.

The writings of Peirce have much to offer toward the completion of such a theory of inquiry. His dual concern with formal logic and mathematics and with the analysis of methods leading to stable knowledge, grew out of his conception of semiosis as a unitary process, involving signs, their referends, and their users, in distinguishable but inseparable relations to one another. He regarded himself, as indeed he was, as a pioneer or backwoodsman in the work of opening up semiotic, and much of the territory

still remains virgin land. And it is essential for an understanding of his conception of logic to bear in mind that he thought of it as the general theory of signs, which must be comprehensive enough to include within a unified framework of ideas types of analysis and approach such as have been indicated, but commonly kept in air-tight isolation from one another.

"The genius of a man's logical method", Peirce once declared, "should be loved and revered as his bride, whom he has chosen from all the world." Dr. Buchler's study provides us with the first full-length portrait of the Beatrice who inspired Peirce profoundly and in whose behalf he fought with all his intellectual might; and for a systematic account of the details of Peirce's contributions to the theory of inquiry, the reader must turn to Dr. Buchler's sympathetic but critical exposition. But a few broad features of that theory are perhaps worth stressing in this place. Peirce conceived inquiry as a process beginning with specific problems and terminating in their resolution, and he identified knowledge as the end-product of inquiry. Accordingly, knowledge cannot be divorced from the character of the methods employed in reaching it, so that, as Peirce repeatedly emphasized, science is more assured of the general, long-run validity of its methods than of any one of the specific conclusions obtained with them. The notion that science is a body of final knowledge, rather than the *pursuit* of those who are devoured by a desire to find things out, is therefore incongruous with the facts in the case; the history of science itself exhibits its conclusions as essentially corrigible, though supported by the character of the inquiry they terminate. No conclusions are above criticism, because there is no ultimate "last analysis" and no intrinsically indubitable basis for our knowledge, though not all conclusions are in fact dubious. This is the substance of Peirce's fallibilism, perhaps the most far-reaching of his methodological principles. Consequently, he rejected a psychological as well as an ontological

atomism. For he saw clearly that inquiry neither begins nor terminates with simples, although it may isolate certain relatively less complex features of a subject-matter explored in order to explore and control it more successfully. And by holding fast to his fundamental characterization of the relation between inquiry and knowledge, he avoided the traditional puzzles of philosophy and logical theory; for these derive almost entirely from isolating knowledge from the procedures which lead up to it, so that it becomes logically impossible to attain it. It is not the least merit of Peirce's conception of scientific method that he identified knowledge as the terminus of inquiry, capable of being studied as to the conditions of its occurrence, as to its functions and consequences, by the same methods which serve to unravel the mutual relations of other facts of nature.

Peirce's analysis of the conditions for significant discourse is intimately related to his general theory of signs, as Dr. Buchler clearly demonstrates. The pragmatic criterion he proposed for the clarification of ideas, in terms of their applicability to matters of observation and experiment, has become an almost universally adopted intellectual disinfectant in almost every branch of inquiry. He was the first, or among the first, to work out an empiricism which could combine recognition of the indispensable function in inquiry of strict logic and other regulative principles, with a recognition of the equally indispensable rôle of sensory observation. Perhaps far too little attention has been given to his interpretation of the meaning of terms and propositions as habits of (organic) action, possessing generality or universality in proportion to the range of their applicability to particular situations. This suggestion, never adequately worked out by Peirce himself, provides a clue for understanding how principles are generated out of the non-cognitive matrix of inquiry, how they acquire operative efficacy, and how they can serve as norms or standards of procedure. On the other hand, Peirce's views

on the status and rôle of mathematics, topics which have always been the Achilles-heel of traditional empiricism, have come to play a dominant rôle in contemporary researches upon the foundations of the subject—although it should be added that they have been arrived at independently of him and elaborated with a fulness and subtlety of which he knew little. It was in consonance with his general theory of signs that he advanced what in his day were remarkably bold views on the nature of mathematics: the validity of mathematical demonstrations rests entirely upon the syntactical properties of systems of signs, and the function of mathematics in inquiry lies in the transformations of discourse it performs. Peirce's views on the subject are a touch-stone of the empiricism he espoused; they enabled him to offer an account of mathematics free from obscurantism, from irrelevant ontological interpretations, and from the sensationalism which bedevilled traditional empiricists.

Peirce once explained that his writings are for people "who want to find out", and that "people who want philosophy ladled out to them can go elsewhere. There are philosophical soup shops at every corner, thank God!" Peirce makes no easy reading, and Dr. Buchler's book, in supplying the details and the background of Peirce's empiricism, does not minimize its difficulties. He does not present Peirce's logical theory as a tightly-knit system of ideas, for such a system is not to be found in Peirce; he does organize and clarify the remarkably rich and suggestive ideas of Peirce, and indicates their interrelations, their excellencies, and their shortcomings. The present book is therefore an invaluable critical guide to a rich mine of ideas awaiting further exploration. Dr. Buchler does not ladle out Peirce, and his essay also is for people who want to find out.

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PART I

CRITICAL COMMON-SENSISM

I WISH to state, as accurately as possible without sacrificing typical details, Peirce's doctrine of critical common-sensism.¹ Peirce is habitually obscure and very often confused, but it is not so much the content as the order of his ideas that requires reconstruction. The designation 'critical common-sensism' first appears in 1905,² after almost forty years of thinking and writing. It must be said at once that I use the term to cover much more in Peirce's thought than he himself does. In his own sense the doctrine is a "variety" of the Scottish philosophy of common sense marked by certain "distinctive characters"; it is first adumbrated, he says, nine years before his formulation of pragmatism, which means in 1868. He acknowledges his "adhesion, under inevitable modification, to the opinion of that subtle but well-balanced intellect, Thomas Reid, in the matter of Common Sense. . . ." (5.444; cf. 5.504). But the similarities between Peirce and the Scottish school cannot be found by a superficial comparison. In fact, the series

¹ The Collected Papers of Charles Sanders Peirce are in six volumes (Harvard University Press, 1931-1935) of an originally projected series of ten. The editors are Charles Hartshorne and Paul Weiss, who have entitled these volumes as follows: I "Principles of Philosophy"; II "Elements of Logic"; III "Exact Logic"; IV "The Simplest Mathematics"; V "Pragmatism and Pragmaticism"; VI "Scientific Metaphysics".

Following the practice of the editors, all citations of the text will here be by volume and paragraph number. Thus '4.320' will mean 'volume 4, paragraph 320'. If a paper by Peirce is cited simply as appearing in an independent source of publication, this means that it has not been reprinted in the Collected Papers.

Italics in quotations from Peirce are his if not otherwise specified. In the one or two cases where I have added my own italics to his in the same quotation this is indicated explicitly.

² In "Issues of Pragmaticism", the *Monist*. (Coll. Papers, 5.438-463.)

of 1868 papers¹ referred to by him not only lacks mention of that school but is based on an opposition to it. If the 1905 paper together with manuscripts of the same period states the similarities, then the 1868 papers state the dissimilarities—historically more important. In the second of these papers Peirce says that he writes in a “spirit of opposition to Cartesianism”. We shall see later how, by breaking with certain dogmas best expressed in Reid and Stewart, Peirce did in fact break with the Cartesian tradition;² and we shall also see how he made use of opinions of Reid and Stewart to formulate critical common-sensism in the narrow, i.e. in his own, sense (§ 14 ff.). ‘Critical common-sensism’ as we use it designates collectively all the subjects considered in the sections that follow.

Thus, in this broader sense, the doctrine is both an attack on certain presuppositions employed by Scottish philosophy (the aspect which concerns us in the first half of this Part), and an adoption of the Scottish emphasis on ‘common sense’ beliefs in the light of this critique (which we show later).

I do not intend to deal with Peirce chronologically, but for various reasons it is desirable to begin with the papers of 1868. In §§ 1-8 I shall dwell on them³ to a large extent, and state their burden with the help of some conceptions

¹ “Questions Concerning Certain Faculties Claimed for Man”, “Some Consequences of Four Incapacities”, “Grounds of Validity of the Laws of Logic”, in *Journal of Speculative Philosophy*. (Coll. Papers, 5.213-357.)

² Aside from internal evidence, there is no explicit statement by Peirce that those whom he had in mind when attacking the ‘Cartesian’ psychological tradition in 1868 were the Scottish representatives of this tradition. But it is significant that in a note at the beginning of the first 1868 paper he calls attention to the meanings of ‘intuition’ given by Hamilton in the Notes on Reid appended to his edition. The term ‘cognition’, which is perhaps the most prominent in the 1868 papers, is a term systematically introduced into British philosophy by Hamilton. That Peirce was thoroughly familiar with Reid and Stewart is quite certain. His close knowledge of Hamilton’s Reid, which would help to confirm the supposition that he had these men in mind in 1868, is attested by other statements and references to the Notes. Cf. e.g. 6.590, 5.608, and 2.533.

³ Strictly, on the first two of the three papers.

of later date. Of these papers James said, "They are exceedingly bold, subtle and incomprehensible and I can't say that his [Peirce's] vocal elucidations helped me a great deal to their understanding";¹ and further, that these "very acute and original psychologico-metaphysical articles . . . are so crabbedly expressed that one can hardly get their exact sense."²

I. Terminology. The most important and most frequently occurring terms in the papers of 1868 are 'cognition', 'intuition', and 'thought'. 'Cognition' and 'thought' are synonymous. As in most other writers, cognition is spoken of sometimes participially, to mean the act of cognizing, and sometimes substantivally, to mean an instance of knowledge (as when we speak of 'a cognition'). Cognition in both senses corresponds to Locke's 'thinking': it is the most general term for mental operation or kind of knowledge. Reasoning, abstraction, belief, sensation, conception, etc. are each a kind of cognition. What applies to cognition in general, applies of course to each kind of cognition: belief, for instance, is used both in the sense of a mental process and of an assertion entertained in this process. It is hardly necessary to mention the point except in order to note that the confusion between the two senses does not occur in Peirce; and it will not be necessary to point it out again when we use such words as 'belief' and 'judgment'.

'Cognizing' (and 'cognition'), 'knowing' (and 'knowledge'), 'thinking' (and 'thought') are, to repeat, synonymous; a cognition, a thought, and an instance of knowledge are identical. Whatever peculiarity may at first appear in this usage will be dispelled later. I prefer, in what follows, to use the term 'cognition' most often, first because Peirce himself does, second because it is less awkward than 'instance of knowledge', and third because it is more suggestive of

¹ Letter to Henry Bowditch, 1869 (in Perry, *Thought and Character of William James*, I, p. 292).

² Letter to Bowditch, 1869 (*Ibid.*, I, p. 296).

knowledge than is 'thought' (though to use the latter term will sometimes be convenient).

Cognitions are of two fundamental classes: first, cognitions which are 'determined' by previous cognitions; second, cognitions which are not determined by previous cognitions. A cognition of the second class Peirce calls an 'intuition'. 'Determined by' means, roughly, 'inferred from'. An intuition, then, is a "premiss not itself a conclusion" (5.213). But Peirce holds that an intuition would have to be 'determined' directly and immediately by its 'object'. We shall therefore shortly distinguish different senses of 'determine'.

2. Cognition; Material Quality of Cognition; Theory of Signs. A basic distinction in Peirce is that between a cognition and the 'material quality' of a cognition. For instance, we are said to have a 'sensation of redness'. In this 'sensation' two elements can be distinguished. There is, first of all, the brute feeling of redness. This brute feeling is private, cannot be duplicated in another person by mere linguistic description, and is a fact, like any other fact in the physical world. But, secondly, we may speak of a knowledge of redness, of redness as a cognition. Knowledge is public, and communicable in language. For Peirce the reason why redness-as-a-cognition is more than a mere qualitative feeling-occurrence is that it is a *representation* or *sign*. In order to understand his distinction, we must sketch very briefly what is involved in his notion of a sign.

A sign is something that *stands for* something else. The mark 'house' on paper is a sign, because it is said to stand for a house; and we are able to talk about the house because we can manipulate the sign which stands for it, together with other signs, according to rules agreed upon. The house is the *object* of the mark 'house'. This mark consists of five individual marks in black type. So that it not only stands for an object but has a definite *material quality* of its own. Every sign has an object, and every sign has some material quality. Signs may be very complex. The sign 'This house

is red' has a different material quality from 'house', and its object is, roughly, the fact that the house is red. But something further is required to fulfil the function of a sign. No sign can function as such unless there are (a) other signs in terms of which the given sign is describable and understandable, and (b) some mind which interprets the given sign in terms of these other signs. A man who uses a sign is always able to, and does, translate it into another sign (or other signs) in terms of which he understands it. A material sign thus has the function of representing or standing for something (to some one) by means of a sign or signs which interpret it. In addition, then, to the material quality of a sign, and the object of this material sign, we must distinguish the interpretation or translation (i.e. another sign), which is the third essential feature. Peirce calls the sign that functions as interpretation or translation the *interpretant* of the given sign. For example, the interpretant of 'house' might be 'square structure with entrance and windows'. The interpretant of a sign is what would ordinarily be called the meaning of a sign.¹ In general, the conception of sign or representation involves a triadic relation between a physical object or quality (the material thing taken as a sign), something which this denotes or refers to (its object), and another sign which it is said to 'mean' or 'connote' (its interpretant).²

Let us return to cognition. According to Peirce, every cognition is a sign (e.g. 1.538, 5.250). We should now understand why a cognition is more than a mere brute feeling. The feeling is merely the *material quality* of the cognition, and there is no cognition without some material quality. Every cognition or thought is in one sense a feeling, it is a particular event. But on the other hand the thought stands for something, it is a thought *of* something; and moreover, it is interpreted or translated by a subsequent thought, its interpretant. Every thought *A* has an interpretant thought

¹ We reserve exactitude on this point for Part II (cf. § 30).

² Strictly, as we have indicated, there is a fourth element, the mind or interpreter (cf. § 30).

B. *B* is itself a sign of the same object of which *A* is a sign, and is interpreted by another subsequent thought *C*. *C* is a sign of the object of which *B* and *A* are signs, and is interpreted by another thought *D*. And so on.¹

3. **Every Cognition is Judicative.** It follows from the nature of cognitions as signs that every cognition is at least a tacit predication or judgment. If a mere image involving absolutely no judgment were called a cognition, it could not be distinguished from the material quality of a cognition. In order that brute feeling, such as an image of redness, should occur, it is necessary only that the sense organs should operate. But in order that there should be said to be a cognition, some possibility² of interpretation is essential. We cannot call a mere qualitative feeling of redness a sign, because there is no sense in speaking of an interpretant of such a feeling. Redness is not 'translated' or 'interpreted'; it simply occurs as an instantaneous feeling, and is followed perhaps by a feeling of a different quality. In order, therefore, that a sensation of redness should involve cognition, it must consist not merely in a brute feeling but in *tacitly predicating red of some object*. Only then can it be called a representation, and be said to have an interpretant.³

4. **Different Senses of 'Determine'.** Peirce distinguishes three senses of 'determine', not in 1868 but in 1905 (5.441). (1) A cognition may be determined by another cognition or by several cognitions, in the sense that it is consciously inferred from them. By 'consciously inferred' is meant

¹ "Thought . . . is in itself essentially of the nature of a sign. But a sign is not a sign unless it translates itself into another sign. . . ." (5.594; cf. 5.138).

² "It is not necessary that the Interpretant should actually exist"; an interpretant "*in futuro* will suffice" (2.92).

³ Both 'feeling' and 'sensation' are often used by Peirce in a cognitive sense. We shall, however, use 'feeling' in the non-cognitive sense, i.e. as synonymous with 'material quality of cognition', except where otherwise indicated. We shall, on the other hand, use 'sensation' in the cognitive sense, except where otherwise indicated.

inferred according to a rule of inference or, as Peirce calls it, a 'leading principle' of inference.¹ It is not necessary that such a leading principle should be explicitly in the mind of one who makes the inference, in the sense that he should be able to express it precisely (cf. 4.476), but only that he should be conscious of such a principle as governing the inference. Thus a cognition as conclusion may be determined by other cognitions as premisses, in the sense of being inferred in this way. Such determinations or inferences Peirce calls *reasonings*. "Reasoning . . . at the very least conceives its inference to be one of a general class of possible inferences on the same model, and all equally valid" (6.497). Thus the inferences drawn by mathematicians are properly called 'reasonings' because they employ conscious rules for validity, such as the rule of replacement, which govern a whole class of inferences of a given form. (2) A cognition may be determined by another in the sense that it is inferred from that other in a conscious inference but without one's being aware that the inference is governed by a leading principle. Of such a rudimentary inference Peirce gives as example the familiar 'cogito, ergo sum'. These instances of determination he calls *acritical inferences*. (3) In still other instances, a cognition may be determined by another "without our being at all aware of it" (5.441). Such determinations he calls *associational suggestions*, and we shall give examples of them in § 14.

There is a fourth sense of 'determine', not mentioned by Peirce perhaps because of its obviousness, but all the more worthy of mention; namely, (4) causal or physiological determination. In this sense there is no doubt that a cognition may be determined by its object, as well as by other cognitions. Thus when we look at a book and involuntarily think 'This book is large', we may in a proper sense regard the thought as determined by the book and its bulk. For Peirce determination is a *logical* relation, hence his usage comprises only the first three senses mentioned. Tacitly, of

¹ Sometimes, 'guiding principle'.

course, he must admit the fourth sense. But what he does not admit—a denial which in fact constitutes the thesis we are at present concerned with—is that a *cognition* may be determined (even in the fourth sense) *immediately* by its object. This denial we shall elaborate gradually in the following sections.

If we consider, then, a series of thoughts succeeding one another, we may say that any thought is determined (in the fourth sense) by the object to which it refers, as well as by other thoughts. But every thought determines (in one of the first three senses) another succeeding thought, its interpretant. So that thoughts are related to one another inferentially. However, only a thought occurring in that kind of cognition known as external perception can be said to be somehow causally determined by its 'object'; the thoughts determined by this thought may also be said to be determined by their object, but not in the same way. They are determined *via* this thought. They refer to their object by referring to the thoughts from which they are inferred (cf. p. 110, i). Every thought is, as we have said, a sign of its object. The interpretant of every thought is a sign of the same object,—but only because it is a sign of the thought whose interpretant it is. In the series of thoughts each thought is thus (as interpretant) a sign of the preceding thought, and hence, indirectly, a sign of the same object.

5. **Peirce's Thesis; Further on the Usage of 'Intuition'.** The dominant idea in the papers of 1868, recurring constantly in Peirce's work, is that *there are no intuitive cognitions*. That is to say, no thought in the series of thoughts is determined directly and immediately, in the fourth sense or, a fortiori, in any of the other three, by its object. In still other words, no thought that can be genuinely called a thought arises solely and immediately on sensory contact with its object: *every* thought is inferred, in one of the first three senses, from some other thought. Any thought *has*

an interpretant thought and *is* the interpretant of some other thought.¹ A thought directly determined by its object would be an intuition. It is important to remember that for Peirce 'intuition' means 'intuitive cognition'. It does not mean sense appearance; that is, it is not to be confused with the material quality of cognition. Peirce does not deny that *this* is determined directly and immediately by an external object. This "mere feeling . . . is determined only by an inexplicable, occult power" (5.291). For Peirce an intuition is understood to be a cognition, but a cognition not inferred from any other. As a cognition, an intuition would be a predication, it would be judicative; and so the thesis that there are no intuitions should be understood as meaning that there are no intuitive judgments. Those who hold that empirical intuitions² do exist are primarily interested in showing that some of our cognitions yield immediate and certain knowledge. They often hold that this certain knowledge is nothing other than 'direct experience'. But 'direct experience' is simply, so far as Peirce is concerned, a term synonymous with 'material quality of cognition'. Consequently, "Direct experience is neither certain nor uncertain, because it affirms nothing—it just *is*. There are delusions, hallucinations, dreams. But there is no mistake that such things really do appear, and direct experience means simply the appearance. It involves no error, because it testifies to nothing but its own appearance. For the same reason it affords no certainty. It is not *exact*, because it leaves much vague; though it is not *inexact* either; that is, it has no false exactitude" (1.145). Thus only cognitions can be said to be certain or uncertain.

Perhaps it is advisable to add another elucidation of the distinction between cognition and its material quality (cf. 5.261, 5.467). Suppose two persons A and B, and two

¹ Cf. 1.339, and p. 110 below.

² 'Intuition' in Peirce's use means only empirical intuition. It is non-discursive cognition in the sense that it is uninferred, not in the sense that it is asymbolic or mystical.