Charles S. Peirce on Objects of Thought and Representation
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Charles S. Peirce on Objects of Thought and Representation[1]

(MS 318, Prag 11-50, 1907)
introduced and edited
by

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INTRODUCTION

Charles Sanders Peirce (1839-1914), has made many original and versatile contributions to philosophy (and about 20 other disciplines and sciences). As a philosopher he proposed to ground all knowledge in a sort of generalized logic, that is, in a theory of all types representation. He called it "semeio'tic" in accordance with the greek spelling. This theory is the pivot of his philosophical system. A philosopher should be celebrated and honored by a discussion and appraisal of his or her contribution to the discipline. For this reason, I have chosen a MS dealing with the concept of an object of a sign that plays a crucial role in Peirce's late work in phenomenology, semeiotics and metaphysics.

Peirce's writings, especially about semeiotic, are notorious for their obscurity. To enable some understanding of the text and the sort of exotic distinctions introduced between "immediate" and "dynamical (or real)" object and "emotional", "energetic" and "logical" interpretant that Peirce is discussing in MS 318, I will, first give some overall account of the general theory of signs in Peirce's philosophy and next explain the role of the concept of an object in his semeiotic.

For the late Peirce, from about 1898 onward, philosophy is independent of the special sciences because it starts with a theory of experience presupposing only everyday observations and some pure

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mathematics. Semeiotics takes a position in the middle of the philosophical disciplines:

Phenomenology → Normative Sciences → Metaphysics

i. Aesthetics
↓
ii. Ethics
↓
iii. Semeiotics (or logic, in a broad sense)

1.) Speculative Grammar (semeiotics in a strict sense)
↓
2.) Critic (logic, in a strict sense)
↓
3.) Methodeutic (epistemology & philosophy of science)

The arrows, '→', or '↓' here stands for the relation 'provides theoretical and methodological principles for'. The task for the phenomenologist is to determine the indecomposable and universal elements of all experience, that is, the categories. Seen from within phenomenology, the universal categories are nothing but conceptions of the omnipresent elements of all experience turned into objects that are to be abstracted from every experience whatsoever. But Peirce clearly saw that phenomenology is notoriously a very subtle and uncertain business, because it can advance no claims that something is true or false and has to rely on rather special types of observation and abstraction dealing with what is present in all sorts of experience. For this reason, the results of our phenomenological inspection of experience should be made confirmable in some independent way or other. This can be done by treating the results of phenomenology as basic principles of semeiotics and of speculative grammar in particular. We can link the results of phenomenology to semeiotics by the following equivalence:

(P-S:Equ) Phenomenology has discovered the correct set of categories if and only if semeiotics shows that a universal theory of representation can be derived from the phenomenological principles and according to the order of the categories.

The categories are not only concepts of the omnipresent elements of experience, they are also principles for the ordering of all types of knowledge, and representation in general. For example, it must be possible for all humanities and sciences, to assign a place to them in an overall framework constructed according to the results of phenomenology and semeiotics. They deal with types of activity that semeiotics treats in a more general fashion: representations. In

philosophy in particular, it must be possible to erect an ontology by interpreting some of the laws and principles of semeiotics as principles of being.

What kind of phenomenological principle do we need in order to build up semeiotics? Let us take a look at Peirce's three categories, his firstness, secondness and thirdness. We will concentrate on what is relevant for the derivation of semeiotics. The three categories are degrees of external complexity or of dimensionality for representations. That is to say, it is possible to construe an ordering relation that holds between every two representations.[3] We can formulate Peirce's categorical principle in the following way:

(PCP) There are exactly three degrees of external complexity of phenomenological elements: every dyadic element involves a monadic one, every triadic element involves dyadic and monadic ones and that all n-adic elements are reducible, i.e. are compounds of, triadic ones.

From (PCP) it follows immediately that all phenomenological elements are either involved in or reduced to triadic ones. We assume, of course, that the involvement of one phenomenological element in another because of the greater external complexity of dimensionality of the second is not a reduction.

Let us now turn to semeiotics and interpret the external complexity of the phenomenological elements as representations of relations of varying degree. Our task is to define all concepts by assigning them to exactly three categorical types of external complexity. The mathematico-logical equivalent of this problem—which of course Peirce never formulated in this fashion—was solved only some years ago. As Hans G. Herzberger has shown,[4] if we define a bonding algebra with relative product as the basic definitional process and restricted to exactly one algebraic type, namely $(n + m - 2)$ we can prove both of the following:

(PCP-1.) All n-adic relations ($n > 3$) are reducible to triadic ones (given a sufficiently large domain);

and

(PCP-2.) All n-adic relations ($n < 3$) are irreducible to triadic ones.

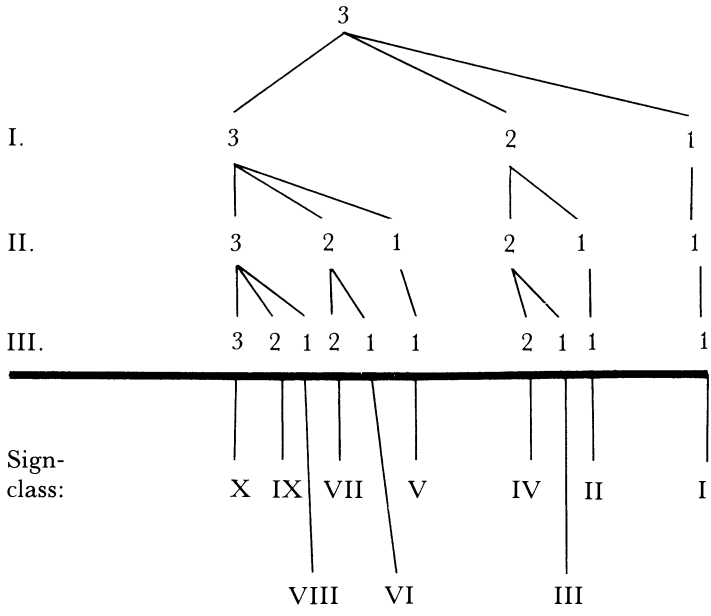
Now, if we drop the restriction of algebraic type, what happens is that we can define, e.g. a triadic relation, by two dyadic ones if we allow relative products of the type $(n + m - 1)$, e.g. $(2 + 2) - 1 = 3$. According to Peirce, this is a "degenerate" type of operation which employs the triadic relation that it defines in

the process of definition, "for every combination of relatives to make a new relative is a triadic relation irreducible to dyadic relations." (CP 8.331) This is indeed the crucial move:

(PCP.-3) In Peirce's categorical scheme triadic relations are basic in being indefinable by all other n-adic relations whether n is < 3 or is > 3.

We have now prepared the ground for the derivation of the 10 sign-classes which Peirce advances in 1903. Suppose that signs are a genuine case of a triadic relation. Then we can deduce with the help of (PCP.-3) that the property of a sign to be a triadic relation is an indefinable property. Furthermore, it follows that all types of signs must be construed as determinations (that is, specifications) by categorical aspects whose external complexity is > 3. For convenience, let us use simply 1, 2, 3 to stand for these categorical aspects implicit in different types of sign. Then we can construct the following tree structure of the "degeneration" of a "genuine" triadic relation. At the same time, because of the independence of the other categorial aspects and their lower complexity, the genuine triadic relation becomes more concrete with every additional step of degeneration. In the tree, every lower stage is a determination of the higher ones:

DIAGRAM I:



According to diagram I, the ten sign-classes are the outcome of a III. level degeneration. On the first level, we have the three correlates which in Peirce's 1903 definition of the sign are described in the following way:

> A *Representamen* is the First Correlate of a triadic relation, the Second Correlate being termed its *Object*, and the possible Third Correlate being termed its *Interpretant*, by which triadic relation the possible Interpretant is determined to be the First Correlate of the same triadic relation to the same Object, and for some Interpretant. A *Sign* is a representamen of which some interpretant is a cognition of a mind. (CP 2.242)

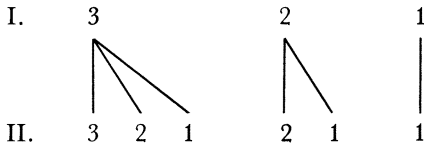
To derive the internal properties of the ten sign-classes of level III, Peirce introduces a new way of applying the categories. Until now, we have simply replaced "phenomenological element" either by "relation" or by "categorical aspect of a sign". However, as we pointed out above, the phenomenological elements have only *external* complexity. But if we turn to the aspects of signs and the corresponding of sign-classes, we can use the categories to identify internal properties because they are compounds of categorical elements. Therefore, Peirce assumes that signs have, with respect to the categories, a Hausdorff-dimension. That is to say, we may use the categories to subdivide the three correlates continuously, or at least to any extent useful to us.[5] These internal subdivisions may also be regarded as "degenerate aspects" of the sign. They give Peirce's three most famous trichotomies:

1. Sign in itself	*2. Object*	*3. Interpretant*
i. Quali-Sign	Icon	Rhema (concept)
ii. Sin-Sign	Index	Dicent (assertion)
iii. Legi-Sign	Symbol	Argument

The internal properties by which Peirce classifies his ten classes of signs in 1903 are nothing but a cross-classification between these three trichotomies. If we were to consider all possible combinations of these trichotomies, we would, of course, get $3 \times 3 \times 3 = 27$ classes of signs. But the combination of internal properties was restricted by the external degeneration of phenomenological elements given by diagram I. Therefore, in 1903 he worked out the properties of the ten classes only in terms of combinations of the three trichotomies, treating the interpretant as only a possible (i.e. rhematic) one as long as possible. For this reason there are six rhematic sign-classes. That is to say, Peirce assigned to the category of thirdness, which acts as a degenerative specification on level one, the lowest internal value as long as possible. By this move all other

interpretants, that is, all propositions and arguments, are shown to be independent of the value of non-propositional or non-argumentational signs.

In 1903 Peirce did not take level II. the for the external degeneration of the sign into account. Only after 1904 and in particular in MS 318 in 1907, when he tried to approach semeiotics in a completely new way, did he advance an interpretation of this level. To understand what happened in this approach of 1904 and later on, let us take a look at level II.:



3: Interpretant
2: Object
1: Representamen (sign in itself)

According to the mechanism of external determination of the original thirdness, we get on the second level three determinations for the third correlate of the sign, namely

3:3 the logical interpretant,
3:2 the energetic interpretant,
3:1 the emotional interpretant.

There are two determinations of the second correlate, namely:

2:2 the dynamical (real) object
2:1 the immediate object.

In the late theory of signs, in contrast to the 1903-theory, the distinction between the three correlates of level I as well as these five distinctions on level II are used in the classification of signs. The ten distinctions of level III then become ten aspects of the sign to which the categories are applied to determine the internal properties of sign-classes. This classification delivers ten trichotomies.[6] The sign-classes have to be determined by cross-classification—now from a number 3^{10} possible combinations, that is, 59049 possible classes. It is of course an open question whether all these classes are independent of one another.

What is so special about the object of the sign? Why not rather concentrate entirely, e.g. on the interpretant?[7] The reason is that Peirce is an ontological realist in the modern and in the medieval sense of the term. In the modern sense he is a realist because he claims that there are objects independent of what we think and know about them. In the medieval sense he is a realist because he holds that universals are realized *in re*, that is, they are instantiated in forms that constitute the objects of our knowledge. Peirce was not

a Platonic realist, that is to say, he did not believe in the existence of individual universals. The universals are real, but they don't exist. For Peirce, the relation of instantiation between a universal and its manifestation is a triadic relation. Given the assumption that triadic relations can't be reduced to dyadic ones, but that dyadic relations, which are sufficient to cover all existential relations between individuals can be involved in triadic relations, the reality of universals cannot be reduced to a set or compound of purely existential facts, whether this set is infinite or not. This is of course a special case of (PCP.-2): The reality of universals is their thirdness and cannot be reduced to their existence, that is, their secondness.

But how is an interaction between real universals and existent individuals instantiating these universals brought about? In particular, how is it possible for a token of a sign, that is, a degenerated form of a genuine triadic relation, to be related to an individual object or to be instrumental in producing an object, e.g. by being a formula of action according to which the object is constructed? For Peirce this way of putting the question rests on a mistake. There cannot be a theory of reference in the sense that we can describe a clear cut one-to-one mapping between, e.g. singular terms and individuals. Rather, by introducing the notion of an independent object, we assume that a sort of regulative idea is at work. Let us call this Peirce's principle of objective unification:

(PPU) A sign has an independent object, if and only if for this sign it holds that
a) we are able to bring about a situation in which some dyadic relation holds between some mental effect and a token of the sign that indicates this object;
b) there is sequence of signs interpreting the same object as the ultimate cause of this sign.

According to (PPU), clause a) there cannot be any objects that do not exist, i.e. that cannot be indicated. However, this existence is identified relative to our use of tokens of a sign and according to clause b) there has to be a sequence of interpretations confirming consistently the contingent identity of the object as the cause of the sign representing it. In short, the object of a sign is an interpretation used to unify contingent identities between different situations of indexical experience. Reference, therefore, is not a property of the sign-system itself but rather of its use. What our objects are, depends on the experiential situation we are in. Or, to put it in Peirce's terms:

> In order that a thing may be a true sign its proper significate mental effect must be *conveyed* from another object which the sign is concerned in indicating and which is by this conveyance the ultimate cause of the mental effect. In order to be the cause of an effect,—or *efficient cause*, as the old phrase was,—it must either be an existent thing or an actual event. Now such things are only known by observation. It cannot be itself any part of the mental effect, and therefore can only be known by collateral observation of the context or circumstances of utterance, or putting forth, of the sign. But the sign may describe the kind of observation that is appropriate and even indicate how the right object is to be recognized. The meaning of the sign is not conveyed until not merely the interpretant but also this object is recognized (MS 318, Prag 41-42, from an alternative draft)

But what happens to cases of winged horses and golden mountains where there is no object to be indicated? These cases are dealt with by introducing the distinction between the *immediate* and the *dynamical* object. The immediate object is internal to the sign—just the idea of an object to which the sign gives rise to. The *dynamical* object is the external object of the sign, an intersubjective item that different people at different times locate in their experience as the same as the object that these people have experienced before.

THE TEXT: MS 318, PRAG 11-50

> The following text is a transcription from a photocopy of the manuscript. We will use the following signs to signal changes in the MS: brackets are used to indicate that something was inserted above the line or in the margin. If something in the text is replaced by what was written above the line the old version follows the new one, enclosed by a double backslash. "Prag X", enclosed in braces gives Peirce's page numbering.

(Prag 11) My pragmatism, having nothing to do with qualities of feeling, permits to hold that the predication of such a quality is just what it seems, and has nothing to do with anything else. Hence, could two qualities of feeling everywhere be interchanged, nothing but feelings could be affected. Those qualities have no intrinsic significations beyond themselves. Intellectual concepts, however,—the only sign-burdens that are properly denominated "concepts",—essentially carry some implication concerning the general behaviour either of some conscious being or of some inanimate object, and so convey more, not merely than any feeling, but more, too, than any existential fact, namely the "would-acts" // "would-dos"// of habitual behaviour; and no agglomeration of actual happenings can ever completely (Prag 12) fill up the meaning of a "would-be".

But that the *total* meaning of the predication of an intellectual concept consists in affirming that, under all conceivable circumstances of a given kind, the subject of the predication would (or would not) behave in a certain way, —that is, that it either would, or would not be true that under given experiential circumstances (or under a given proportion of them, taken *as they would occur* in experience) certain facts would exist, *that* proposition I take to be the kernel of pragmatism. More simply stated, the whole meaning of an intellectual predicate is that certain kinds of events would happen, once in so often in the course of experience, under certain kinds of existential circumstances.

But how is this pregnant principle to be proved true? For it seems (Prag 13) to be in violent contrast to what one will read, [let us say for example, in] Mr. Bradley's "Appearance and Reality", and [in] the other works of the high metaphysicians; as it [no less decidedly] conflicts with the simpler doctrines of Haeckel, [Karl Pearson], and other nominalists. I might offer half a dozen different demonstrations [of the pragmatist principle]; but the very simplest of them would be technical and lengthy. It would not be such as a reader of this journal[8], a student of current literature, could be expected to undertake critically to examine. Such a reader would like to know the color of the thought that supports the positive assertion of pragmatism, without entering [too minutely] into details. Just such a desire I shall endeavor to satisfy, though the smallest sufficient measure of detail will scare away some readers who if they were to persevere would find the detail interesting.

To begin with, every concept and every thought beyond immediate perception is a sign. So much was well made (Prag 14) out by Leibniz, Berkeley, and others about two centuries ago. The use of the word λόγος shows that the Greeks, before the development of the science of grammar, were hardly able to think of thought from any other point of view. Let anybody who may desire evidence of the truth of what I am saying just recall the course of what passed in his mind during some recent sincere and fervid self-deliberation. If he is a good introspector, he will remark that [his deliberations] took a dialogic form, the arguer of any moment appealing to the reasonableness of the ego of the succeeding moment for his critical assent. Now it is needless to say that conversation is composed of signs. Accordingly, we find the sort of mind that is least sophisticated and is surest to betray itself by its language is given to such (Prag 15) expressions as "I says to myself, says I", or even to audibly talking to himself, like Launcelot Gobbo, according to //that// [the] subtile psychologist [who created him] //his creator//. Oh, I am confident the reader will grant that every thought is a sign.

Now how would you define a *sign*, Reader? I do not ask how the word is ordinarily used. I want such a definition as a zoologist would give of a fish, or a chemist of [a fatty body] //aliphatic//, or of an aromatic body,—an analysis of the essential nature of a sign, if the word is to be used as applicable to everything which the most general science of semeio'tic must regard as its business to study; be it of the nature of a significant quality, or something that once uttered is gone forever, or an enduring pattern, like our (Prag 16) sole definite article; whether it professes to stand for a possibility, for a single thing or event //happening//, or for a type of things or of truths; whether it is connected with the thing, be it truth or fiction, that it represents, by imitating it, or by being an effect of its object, or by a convention or habit; whether it appeals merely to feeling, like a tone of voice, or to action, or to thought; whether it makes its appeal by sympathy, by emphasis, or by familiarity; whether it is a single word, or a sentence, or is Gibbon's Decline and Fall; whether it is interrogatory, imperative, or assertory; whether it is [of the nature of a jest], or [is] sealed and attested, or relies upon artistic force; and I do not stop here because the varieties of signs are by any means (Prag 17) exhausted. Such is the definitum which I seek to fit with a rational, comprehensive, scientific, structural definition,—such as one might give of "loom", "marriage", "musical cadence"; aiming, however, let me repeat, less at what the definitum conventionally does mean, than at what it were best, in reason, that it should mean.

Everybody recognizes that it is no inconsiderable art, this business of "phaneroscopic" analysis by which one frames a scientific definition. As I practice it, in those cases, like the present, in which I am debarred from a direct appeal to the principle of pragmatism, I begin by seizing upon that [predicate] which //character// appears to be most characteristic of the definitum, even if it does not quite apply to the entire extension of the definitum. If the predicate be too narrow, I [afterward] seek for some ingredient of it which shall be broad enough for an amended definitum and, at the same time, be still more scientifically characteristic of it.

Proceeding in that way with [our definitum] "sign", we note, as highly (Prag 18) characteristic, that signs mostly function, [each] between two minds, or theatres of consciousness, of which the one is the agent that *utters* the sign, (whether acoustically, optically, or otherwise,) while the other is the *patient* mind that *interprets* the sign. Going on with my account of what is characteristic of a sign, without taking the least account of exceptional cases, for the present, I remark that, before the sign was uttered, it already was virtually present to the consciousness of the utterer, in the form of a thought. But,

as already remarked, a thought is itself a sign, and should itself have an utterer, [namely, the ego of a previous moment,] [to whose consciousness] it must have been already virtually present, and so back. Likewise, after a sign has been interpreted, it will virtually remain in the consciousness of its (Prag 19) interpreter, where it will be a sign,—perhaps, a resolution to apply the burden of the communicated sign,—and, as a sign should in its turn have an interpreter, and so on forward. Now it is undeniably conceivable that a beginningless series of successive utterers should all do their work in a brief interval of time, and that so should an endless series of interpreters. Still, it is not likely to be denied that, in some cases, neither the series of utterers nor that of interpreters forms an infinite collection.

When this is the case, there must be a sign without an utterer and a sign without an interpreter. Indeed, there are two pretty conclusive arguments on these points that are likely to [occur to] the reader. But why argue, when signs without utterers are often employed? I mean such signs as symptoms of disease, signs of the weather, (Prag 20) [groups of experiences] //perceived facts// serving as premisses, etc. Signs without interpreters less manifestly, but perhaps not less certainly exist. Let the cards for a Jacquard loom be prepared and inserted, so that the loom shall weave a picture. Are not those cards signs? They convey intelligence,—intelligence that, considering its spirit and pictorial effect, cannot otherwise be conveyed. Yet the woven pictures may take fire and be consumed before anybody sees them. [A set] //One// of those models that the designers of vessels drag through the water may have been prepared; and with [the set] //it// a complete series of experiments may have been made; and their conditions and results may have been automatically recorded. There, then, is a perfect representation of the behaviour of a certain range of forms. Yet if nobody takes the trouble (Prage 21) to study the record, there will be no interpreter. So the books of a bank may furnish a complete account of the state of the bank. It remains only to draw up a balance sheet. [But] if this be not done, while the sign is complete, the human interpreter is wanting.

Having found, then, that neither an utterer, nor even, perhaps, an interpreter is essential to a sign, characteristic of signs as they [both] are, I am led to inquire whether there be not some ingredient of the utterer and some ingredient of the interpreter which not only are so essential, but are even more characteristic of signs then the utterer and the interpreter themselves. We begin with seeking the essential ingredient of the utterer.

(Prag 22) By calling this quaesitum an *ingredient* of the utterer,

I mean that where this quaesitum is absent the utterer cannot be present; and further what where there is no utterer, it cannot be that this quaesitum together with all the others of a certain body of "ingredients" should all be present. This latter clause, however, has so little importance and is so nearly self-evident that I need not insist upon it. A fact concerning our quaesitum, which we can know in advance of all study, is that, because this quaesitum will function as a sort of substitute for an utterer, in case there be no utterer, or at any rate fulfills nearly the same, but a more essential, function, it follows that since it is not the sign that constructs or voices [or represents] the utterer, but, [on the contrary,] the utterer that constructs, (Prag 23) voices, and sets forth the sign, therefore, although *ex hypothesi* the quaesitum is something quite indispensible to the functioning of the sign, yet it [cannot be fully revealed or brought to light by any study of the sign alone, as such] //is something whose meaning the sign cannot, of itself convey, or at any rate will not actually show.// Knowledge of it must come from previous or collateral source. [Moreover, since it is conceived to act upon the sign, it must be conceived as singular, not general]. But perhaps this is not very clear and needs illustration.

Example 1. Suppose I chance to overhear one man at a club say to another "Ralph Pepperill has bought that mare Pee Dee Kew". Never having heard before either of Ralph Pepperill or of Pee Dee Kew, it means to me only that some man has bought some famous trotter; and since I knew already that some men do make such purchases, it does not interest me. But the next day I hear somebody inquire where he can find a copy of Stevens's edition (Prag 24) of Plato; to which reply is made that Ralph Pepperill [says he has] a copy. Now although I never was knowingly acquainted with any purchaser of crack trotting-horses, yet I should not have supposed that such a person would be aware of possessing an old edition of Plato whose chief [value is due to the circumstance] that modern citations from the Dialogues usually refer to it. After this, I begin to pay attention to what I hear of Ralph Pepperill; until, at length, that which the name means to me probably represents pretty fairly what it would mean to an acquaintance of the man. This imparts, [not merely an interest, but also] a *meaning* to every little scrap of new information about him; —to scraps that would have conveyed no information whatsoever, had they first introduced [his name] to my ears. Yet the name itself will remain a designation devoid of essential sig- (Prag 25) nification, and so much of the accidental kind as it may at any time have acquired will not have been derived, [in however slight measure,] form the utterer

of [any] sentence which it may furnish with informatory interest,—at least, not from him in his capacity as utterer of that sentence.

Example 2. I remember a blazing July noon in the early sixties when a fellow-student in the chemical laboratory, in whose company I was crossing the Harvard 'College Yard', while the grass shone like emeralds, and the red-brick buildings, not red enough [by nature] for the taste of the curator, were blazing in a fresh coat of something like vermillion, —when this fellow student casually remarked upon the pleasing harmony of color: between the grass, the foliage, and the buildings. With eyes feeling as if their balls were being twisted by some (Prag 26) inquisitor, I at first understood the remark as a sorry joke, like the gibes of some Indian captive at the want of skill of his tormentors. But I soon found that it was the utterance of a sincere feeling, and then, by a series of questions, soon discovered that my friend was blind to the red element of color. A man may have learned that he is color-blind, but it is impossible that he should be conscious of the stupendous gulf between his chromatic impressions and those of ordinary men; although it is needful to take account of this in all interpretations of what he may say about colors. In the course of my examination of that young gentlemen, which occupied several days, I learned a more general lesson, worth multiples of the time it lost me from the laboratory.

Example 3. Toward the end of a sultry afternoon, three young gentlemen (Prag 27) are still lounging together; one in a long chair, one supine upon a lounge; the third standing by the open casement that looks down seven stories upon the Piazza di Spagna form its Pincian side, and seems to be half glancing at the newspaper that has just been brought to him. His is one of those natures that habitually hold themselves within the limits of extreme calm, because they too well know the terrible expense of allowing themselves to be stirred. In a few moments, he breaks the silence with the word, "Verily, it is a terrible fire". What does he mean? The other twain are too lazy to look. The long-chaired one thinks [the utterer] was looking at the newspaper when he made [his exclamation] //explanation//, and concludes that there has been a conflagration in Teheran, in Sydney, or in some such place, appalling enough to be flashed round the globe. But the couched man thinks the utterer was looking out [of] the window, and that (Prag 28) there must be a fire down in the Corso, or in that direction. [Here] is another case in which the whole burden of the sign must be ascertained, not by closer examination of the utterance, but by collateral observation of the utterer.

Example 4. I find (let us suppose) among my books, a quarto volume among the leaves of which an old MS. letter has got bound, which gives some details about a fire, —apparently a considerable conflagration since the writer speaks of it as "the fire", as if the addressee could not possibly mis-identify it, and since different houses being consumed [are mentioned as] small details. If it refers to the great fire of London, it is certainly of remarkable interest. But how am I to know whether it does so or not? I need not say that the binder in trimming the edges has cut off the date; since the oath of their trade, [as it would seem, must] oblige binders to do this (Prag 29) whenever the margins carry matter of special interest. I can, therefore, only submit the MS. to some expert in diplomatics who can pronounce on the date of the writing and of the paper. In this case, again, the whole significance of the sign depends upon collateral observation.

Example 5. Pronouns are words whose object is to indicate what kind of collateral observation must be made in order to determine the significance of some other part of the sentence. "Which" directs us to [seek the quaesitum in the previous context;] the personal pronouns to observe who is the speaker, who the hearer, etc. The demonstrative pronouns [usually] direct [this sort of] observation to the circumstances [of the utterance] (perhaps to the way a [finger] points) rather than to the words.

(Prag 30) Since the most acute minds, in dealing with conceptions unfamiliar to them, will blunder in ways that astonish those who are habituated to such dealings, I will propose, as an additional example, that of a weather-cock. Now a weather-cock is one of those natural signs, like a sign of the weather, which depends upon a physical connection between the sign and that of which it is the sign. But a weather-cock having been devised, as everyone knows, to show which way the wind blows, itself signifies to what it refers; and consequently it may be argued that no collateral observation is called for to complete its significance. But this reasoning commits two faults. In the first place, it confuses two incompatible ways of conceiving of a weather-cock; as a natu- (Prag 31) ral sign, and therefore [as] having no utterer; and as a human contrivance to show the direction of the wind, and as such, uttered by its [original inventor. (For I speak of the weather-cock, —the type, not the single instrument.)] In the second place, the reasoning overlooks the obvious truth that when thoughts are determined or revealed by a sign, the sign exists first, (virtually, at any rate,) and those thoughts subsequently. Hence, thoughts applied to devise a weather-cock cannot be revealed by the weather-cock, but come under the head of

''previous or collateral'' information. To this all-sufficient reply, it may be added, by way of surplusage, that prudent persons, in consulting a weather-cock, watch it to see whether it veers, as a security against the possibility of its being jammed by rust or otherwise, and against its being deflected by any other force than that of the wind.

(Prag 32) It is now easy to see that the ''*requaesitum*'', which we have been seeking is simply that which the sign ''stands for'', or the idea of that which it is calculated to awaken. We now have a clearer idea of the *requaesitum* than we had, at first, of the ''object of the sign''. Our remarks may be regarded as attempts to analyze the idea of ''standing for'' or ''representing''. The ''requaesitum'', when there [are both] an utterer and an interpreter, is that which the former has in mind, but which it does not occur to him to express, because he well knows that the interpreter will understand that he refers to that, without his saying so. I am speaking of cases in which the sign stands alone without any context. Thus if the utterer says ''Fine day!'' he does not dream of any possibility of the interpreter's thinking of any mere *desire* for a fine day that a Finn at the North Cape [might] have entertained on April 19, 1776. He means, of course, to refer to the actual weather, then and there, where he and the (Prag 33) interpreter are alike influenced by the fine weather, and have it near the surface of their common consciousness. Marine fossils found on a mountain, considered as a sign of the sea-level having been higher than the level of deposit of those fossils, refer to a distant but indefinite date. Here, there is no utterer; but this is what might have remained unexpressed in the mind of the utterer, though essential to the significance of the sign, if that sign had been devised and constructed to give the human race a first lesson in geology. Where the sign is only a part of another sign, so that there is a context, it is in that context that the requaesitum is likely, in part at least, to be found; [though] it is not [absolutely] necessary that it should be found in any part of the sign.

This *requaesitum* I term the *Object* of the sign; —the *immediate* object, if it be the idea which the sign is built upon, the real object, if it be that real thing or circumstance upon which that idea is [founded as on bed-rock].

(Prag 34) The object [of a Sign], then, is necessarily unexpressed in the sign, taken by itself. Indeed, we shall soon see that whatever is so expressed comes under quite a different [category]. But the above examples show that that [idea] which though essential to the functioning of a sign can only be attained by collateral observation

is [the idea of] a strictly individual thing, or individual collection or series, or an individual event, or an individual *ens rationis*. This sufficiently proves the truth of the proposition. There are deeper causative reasons that cannot be given here. The proposition does not amount to so much as it has the air of doing, since whatever actually exists is an individual. For a finite plural is nothing but the singular of an indefinite collective (Prag 35) noun; while the endlessness of an infinite collection is of a hypothetical, or ideal, nature, and lacks completed existence. The object of a sign, though singular, may nevertheless be multiple, and may even be infinitely so. Take a verb in the indicative mood out from its context, and what is its object? What, for example, is the object of ''runs''? *Answer*: it is something, a runner. What is the object of ''kills''? *Answer*: it is a pair of indesignate individuals, the one a killer, the other killed by him. So ''gives'' has for its object a triplet of related indesignate singulars, a giver, a gift, a recipient of that gift from that giver. ''Buys'' is predicated of a quartette [composed of the seller, the buyer], the legal right that is transferred from the former to the latter, and the price. (Prag 36) The different members of the set which is the object of a verb, —its *partial* objects, as they may be called,—often have distinctive characters which are the same for large numbers of verbs. Thus, the partial objects of an ordinary transitive verb are an agent and a patient. These distinctive characters have nothing to do with the form of verb, as a sign, but are derived from the form of the fact signified. By taking note of this, one may avoid some perplexity when the verb itself expresses the functioning of a sign. For example, one of the partial objects of [the verb] ''expresses'', is of course the thing expressed, which in some drowsy moment might seem [an instance refuting] the principle that the object of a sign cannot be expressed by the sign itself. [To avoid the puzzle, one need but] note that the verb ''expresses'' not only *is* a sign, and ex- (Prag 37) presses something, but also signifies the action of a sign, or expresses its expressing something. Its accusative is the object of the outer sign, but not of the other, inner sign which this outer sign implies.

It should be mentioned that though a sign cannot express its Object, it may describe, or otherwise indicate, the kind of collateral observation by which that Object is to be found. Thus, a proposition whose subject is distributively universal (not plural or otherwise collectively universal) such as ''Any man will die'', allows the interpreter, after collateral observation has disclosed what [single] universe is meant, to take any individual of that universe as the Object of the (Prag 38) proposition, giving, in the above example,

the equivalent "If you take any individual you please of the universe of existent things, and if that individual is a man, it will die". If the proposition had been, "Some Old Testament character was translated", the indication would have been that the individual must be suitably selected; [while] the interpreter would have been left to his own devices to identify the individual.

(If it be desired to break the paper into two, here is a good place.)

[Now that we have] attained, [you and I, Reader,] as I hope, a pretty clear notion of what, in strictness of speech, must be meant by the Object of a sign, it becomes pertinent to inquire how far such strictness of speech is practicable and convenient. Of the two (Prag 39) loosely synonymous terms, "individual" and "singular", the former translates Aristotle's τὸ ατομον (see 3a35, about the middle of the 5th chapter of the Categories,) the latter his τὸ καθ' Σκαστον (see the 27th chapter of the 1st Prior Analytics, where Cleon and Callias are given as examples.)

"Individual" is usually and well defined as that which is absolutely determinate; the "singular" is that which is absolutely determinate as long as the time is so, or to generalize this definition, is variable only in two precisely opposite and converse ways of varying. Now it is quite impossible that any collateral observations, however they might be eked out by imagination or thought, should ever approach a positive idea of a singular, let alone an individual; that is, that we should actually think it is determinate in [each one of] the more than (Prag 40) millions of respects in which things may vary. Suppose, for example, that it is visible; and consider only the outline of [a single] aspect of it. Even though this outline were restricted to being one of a family of curves, say ellipses, the different possible shapes between any two limiting shapes are more than innumerable; for there is a continuum of them. It would be impossible to complete our collateral observation, aided though it were by imagination and thought, even in this one, almost insignificant, respect. It is plainly impracticable, therefore, to restrict the meaning of the term "object of a sign" to the Object strictly so called.

For, after all, collateral observation, aided by imagination and thought, will usually result in some idea, though [this] need (Prag 41) not be particularly determinate; but may be indefinite in some regards and general in others. Such [an] apprehension, approaching, however, distantly, that of the Object strictly so called, ought to be, and usually is, termed the "immediate object" of the sign in the [intention] of its utterer. It may be that there is no such thing or fact in existence, or in any other mode of reality; but we surely shall not deny to the common picture of a phoenix or to a figure

of naked truth in her well the name of a "sign", simply because the bird is a fiction and Truth an *ens rationis*.

If there be anything *real* (that is, anything whose characters are true of it independently of whether you or I, or any man, or any number of men think them as being characters of it, or not,) that (Prag 42) sufficiently corresponds with the immediate object (which, [since it is] an apprehension, is not real,) then whether this be identifiable with the Object strictly so-called or not, it ought to be called, and usually is called, the "real object" of the sign. By some kind of causation or influence it must have determined the significant character of the sign.

So much for the object, or that by which the sign is essentially determined in its significant characters in the mind of its utterer. Corresponding to it there is something which the sign in its significant function essentially determines in its interpreter. I term it the "interpretant" of the sign. In all cases, it includes feelings; for there must, at least, be a sense of comprehending the meaning of the sign. If it includes more [than mere feeling], it must evoke some (Prag 43) kind of effort. It may include something besides, which, for the present, may be vaguely called "thought". [I term these three kinds of interpretant the "emotional", the "energetic", and the "logical" interpretants. If a sign has no interpreter, its interpretant is a "would be", i.e. is what it would determine in the interpreter if there were one.]

In its general nature, the interpretant is much more readily intelligible than the object, since it includes all that the sign of itself expresses or signifies. But there is some difficulty in defining the three kinds of interpretant. It may possibly be, for example, that I am taking too narrow a conception of the sign in general in saying that its initial effect must be of the nature of feeling, since it may be that there are agencies that ought to be classed along with signs and yet that at first begin to act quite unconsciously. But since this error, if it be one, does not seem to have anything to do with the subject of pragmatism, I do not now stop to consider it. A much more serious (Prag 44) question, especially in the present connexion, concerns the nature of that logical interpretant, [the] conveyed thought, which we easily assure ourselves that some signs have, [though we] do not [straightway] discern in what it consists. Here is another place where the essay might be broken in two.

I am now prepared to risk an attempt at defining a sign,—since in scientific inquiry, as in other enterprises, the maxim holds, *Nothing hazard, nothing gain*. I will say that a sign is anything of whatsoever mode of being, [which] mediates between an object and an inter-

pretant; [since it is both] determined by the object *relatively to the interpretant*, and determines the interpretant *in reference to the object*, in such wise as to cause the interpretant to be determined by the object through the mediation of this "sign".

(Prag 45) The object and the interpretant are thus merely the two correlates of the sign; the one being antecedent, the other consequent of the sign. Moreover, the sign being defined in terms of these correlative correlates, it is confidently to be expected that object and interpretant should precisely correspond, each to the other. In point of fact, we do find that the immediate object and emotional interpretant correspond, both being apprehensions, [or are "subjective"; both, too, appertain to all signs without exception]. The real object and energetic interpretant also correspond, both being real facts or things. But to our surprise, we find that the logical interpretant [does] not correspond with any kind of object. This [defect of correspondence] between object and interpretant must be rooted in the essential difference [there is] between [the nature of] an object and (Prag 46) [that of an] interpretant; which difference is that former [antecedes while] the latter succeeds the sign. The logical interpretant must, therefore, be in a relatively future tense.

To this may be added the consideration that is not all signs that have logical interpretants, but only intellectual concepts and the like; and these are all either general or intimately connected with generals, as it seems to me. This shows that the species of future tense of the logical interpretant is that of the conditional mood, the "*would-be*".

At the time I was originally puzzling over the enigma of the nature of the logical interpretant, and had reached about [the stage] where the discussion now is, being in a quandary, it occurred to me that if I only could find a moderate number (Prag 47) of concepts which should be at once highly abstract and abstruse, and yet [the whole nature of] whose meanings should be quite unquestionable, a study of them would go far toward showing me how and why the logical interpretant should in all cases be a conditional future. I had no sooner framed a definite wish for such concepts, than I perceived that in mathematics they are as plenty as blackberries. I at once began running through the explications of them, which I found all took the following form: Proceed according to such and such a general rule. Then, if such and such a concept is applicable to such and such an object, the operation will have such and such a general result; and conversely. Thus, to take an extremely simple case, if two geometrical figures of dimensionality N should be equal in all their parts, an easy [rule of] construction

(Prag 48) [would] determine, in a space of dimensionality N + 1 containing both figures, an axiom of rotation, such that a rigid body [that should fill not only that space but also a space of dimensionality N + 1, containing the former space, turning about that axis,] //filling that space// and carrying one of the figures [along with it,] while the other [figure] remained at rest, [the rotation] would bring the movable figure [back into its original space of dimensionality N, and when that event occurred, the movable figure would be in] //into// exact coincidence with the unmoved one, in all its parts; while if the two figures were not so equal, this would [never] //not// happen.

Here was certainly a stride toward the solution of the enigma. For the treatment of a score of intellectual concepts on that model, only a few of them being mathematical, seemed to me to be so refulgently successful as fully to convince me that to predicate any such concept of a real or imaginary object is equivalent to declaring that a certain operation, corresponding to the concept, if performed upon that object, (Prag 49) would (certainly, or probably, or possibly, according to the mode of predication) be followed by a result of a [definite] //certain general// description.

Yet this does not quite tell us just what the nature is of the essential effect upon the interpreter, brought about by the *semio'sis* of the sign, which constitutes the logical interpretant. It is important to understand what I mean by *semiosis*. All dynamical action, or action of brute force, physical or psychical, either takes place between two subjects (whether they react [equally] upon each other, or one is agent and the other patient, entirely or partially) or at any rate is a resultant of such actions between pairs. But [by] "semiosis" I mean, [on the contrary,] an action, or influence, which is, or (Prag 50) involves a coöperation of *three* subjects, such as a sign, its object, and its interpretant, [this tri-relative influence not being] resolvable into actions between pairs. Σημείωσις in Greek of the Roman period, as early as Cicero's time, if I remember rightly, meant the action of almost any kind of sign; and my definition [confers to] //gives to// anything that so acts the title of a "sign".

Notes

[1]Editor's statement: This edition of a hitherto unpublished part of MS 318, 1907 is meant to celebrate the 150th birthday of Charles Sanders Peirce who was born September 10, 1839, in Cambridge, Massachusetts, as the second son of Sarah Hunt Mills Peirce and the mathematician Benjamin Peirce. I would like to thank the Harvard Philosophy Department and its chairman Hilary Putnam who has granted me the right to publish this part of MS 318, 1907.

[2]I would like to thank Christian Strub and my wife, Astrid Pape, for their help in preparing the text.

[3]In 1908, Peirce remarks "how is it possible for an indecomposable element to have any differences of structure? Of internal logical structure it would be clearly impossible. But of external structure, that is to say, structure of its possible compounds, limited differences of structure are possible." (*Collected Papers of C. S. Peirce*, ed. by Charles Hartshoren and Paul Weiss, Harvard U.P. 1965, Vol. 1, § 289, in what follows cited as "CP" and "1.289", with the first numeral referring to the volume and the other numerals to the paragraph.

[4]Hans G. Herzberger "Peirce's Remarkable Theorem", in: *Pragmatism and Purpose: Essays Presented to Thomas A. Goudge*, ed. by L.W. Sumner, J. G. Slater, F. Wilson, University of Toronto Press, 1983, pp. 41-58.

[5]In Peirce's terminology, distinguishing between degenerate and genuine signs, this means that signs are genuine triads which are constituted by three correlates that are themselves, internally, tripels—although they are, in relation to one another, the first, second and third correlate. Cf. CP 1.537, 1903: ". . . in genuine Thirdness, the first, the second, and the third are all three of the nature of thirds, or thought, while in respect to one another they are first, second, and third." The correlates have to have this internal complexity because in a genuine relation, every two correlates may be used to form the relative product which defines the remaining third correlate. For example, the sign in itself and the interpretant may be used to define the object of a certain sign.

[6]In fact, the 1908 list of the ten respects given below delivers in each case the categorical aspect of level II. and III. of the tree to describe a respect of signs. I leave it to the reader to figure out the correlation between the 1,2,3 notation of the diagram and Peirce's terminology: "The ten respects according to which the chief divisions of signs are determined are as follows:
1st, According to the Mode of Apprehension of the Sign itself,
2nd, According to the Mode of Presentation of the Immediate Object,
3rd, According to the Mode of Being of the Dynamical Object,
4th, According to the Relation of the Sign to its Dynamical Object,
5th, According to the Mode of Presentation of the Immediate Interpretant,
6th, According to the Mode of Being of the Dynamical Interpretant,
7th, According to the Relation of the Sign to the Dynamical Interpretant,
8th, According to the Nature of the Normal Interpretant,
9th, According to the Relation of the Sign to the Normal Interpretant,
10th, According to the Triadic Relation of the Sign to its Dynamical Object and its Normal Interpretant." (CP 8.344)

[7]According to many critics, we would do better by building up a theory of signs without the notion of an object. This is what, e.g. A. Ayer argued for: "The greatest obstacle which we have found to giving a coherent account of Peirce's theory of signs is the obscurity of his notion of the object of a sign. I believe that his obscurity is not, as often with Peirce, a matter of formulation but that it results, at least in part, from some confusion of thought." (A. Ayer, "The Origins of Pragmatism", London 1968, S. 166) D. Greenlee in his book "Peirce's Concept of Sign" (Paris, 1973) took roughly the same point of view.

[8]The article for which this manuscript is a partial draft was written in the form of a letter to the editor of *The Nation*, a journal for which Peirce from 1869-1908 wrote roughly 400 reviews.