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Peirce's General Theory of Signs

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Charles. S Peirce was one of the founders of Pragmatism, alongside William James and John Dewey. This paper looks at Peirce's later work on his theory of signs, or semiotic. Peirce's semiotic is a broad one, including as signs things that other semioticians may reject. Peirce's semiotic includes a key division of signs into the three categories of Icon, Index and Symbol. This trichotomy and the breadth of Peirce's semiotic makes it well suited to, for example, a semiology of cinema. The basic structure of the sign in Peirce is also triadic, being a relation between sign-object-interpretant, and this brings us to a further appreciation of the sign as sign-action: a move from semiotic to semiosis.

Peirce's approach to the philosophy of language goes beyond language to a theory of signs in general, and this 'semiotic' is deeply embedded within his broader systematic philosophical works. To understand it therefore, it is helpful to do two things: 1) to understand the breadth of Peirce's semiotic and 2) to differentiate it from other philosophical theories in the field. Both these approaches help to clear a space for it to be understood on its own terms.

When Max Fisch asks 'Just how general is Peirce's general theory of signs?', he argues that 'everything that is a sign for any other semiotician is a sign for Peirce' (Fisch, 1986, p. 357). Fisch asks us to pay special attention, therefore, to those things that are signs for Peirce that are not signs for other semioticians. While students of the philosophy of language may not be familiar with Peirce's semiotic, they are more likely to know the term 'semiotic' as employed by Saussure. Here a very instructive contrast can be made along the lines that Fisch suggests, that will lead us directly into what is perhaps the most key division within Peircean semiotic, viz, the division of signs into the categories of *icon, index* and *symbol*.

Saussure's definition of a sign is a narrower definition than Peirce's. For Saussure, a sign is arbitrarily connected to the object is signifies (Wollen, 1998). That is, the connection between a sign and its object is based on convention. To view language as a system then is to understand it as based on *rules*. These rules determine which words denote which objects, and together comprise a system which is social in that they are collectively agreed or accepted. It follows that *language*, for Saussure as semiotician, is the paradigm case for semiotics and foundational to all other sign use. Following Saussure's lead, Barthes later concludes that semiotics itself is, in fact, a branch of linguistics (*ibid.*).

Not so for Peirce. The conventional sign, based on an arbitrary association with its object and governed by a rule for its use, is just one of three categories of sign identified by Peirce; it is called by Peirce a *symbol*. So he describes a symbol thus:

A Symbol is a sign which refers to the Object that it denotes by virtue of a law, usually an association of general ideas, which operates to cause the Symbol to be interpreted as referring to that Object (Peirce, 1998, p. 292).

The following year, Peirce summarises the threefold division of signs as follows:

An icon	is a sign fit to be used as such because		it possesses the quality signified.
An index	"	"	it is in real reaction with the object denoted.
A symbol	"	"	it determines the interpretant sign

(p. 307).

It will be seen from the diagram above that a *symbol* is the third category of *signs*. Now Peirce, by his own confession, is entirely preoccupied by such threefold divisions and his entire philosophy is systematically structured by division into these three recurrent categories. Each category has its own distinct character wherever in his philosophy the triad is manifested. The first category is the most simple, often described as quality or feeling. The second builds on the first, but is characterised as reaction and is dyadic. The third introduces generality or law, is triadic in nature and requires the previous two categories to subsist. These three categories then are not just ordinal (in a sequence) but are cumulative, dependent on the categories previously given.

When this threefold division is applied to the theory of signs therefore, we can see that an *icon* is a first, monadic, type—the most basic of the three types of sign. Peirce describes it thus:

This is defined as a sign of which the character that fits it to become a sign of the sort that it is, is simply inherent in it as a quality of it. For example, a geometrical figure drawn on paper may be an *icon* of a triangle or other geometrical form. If one meets a man whose language one does not know and resorts to imitative sounds and gestures, these approach the character of an icon. The reason they are not pure icons is that the purpose of them is emphasized. A pure icon is independent of any purpose. It serves as a sign solely and simply by exhibiting the quality it serves to signify (p. 306).[1]
It will be observed that the icon is very perfect in respect to signification, bringing its interpreter face to face with the very character signified (p. 307).

The *icon*, in short, is related to the object it denotes by dint of similarity or likeness. An *index*, next, is a dyadic relation. The index denotes its object; it exists in virtue of a real, existential connection with its object, and in doing so it assures us that the object it represents really exists. Peirce describes it thus:

It is defined as a sign which is fit to serve as such by virtue of being in a real reaction with its object. For example, a weathercock is such a sign. It is fit to be taken as an index of the wind for the reason that it is physically connected with the wind … A pure index simply forces attention to the object with which it reacts and puts the interpreter into mediate reaction with that object, but conveys no information (p. 306).[2]

While language, then, is the primary example of *symbols*, within language pronouns for example operate as indices, denoting existent objects. An index might equally be a gesture such as pointing, or a symptom that is a sign of an illness, or a natural sign as a footprint is to the tracker of a deer. Icons, operating a step further away from the symbolic elements of language, might include a painted portrait (the resemblance being to the person's appearance), or a swatch of coloured fabric to match a thread, but would also include such common things as a child's doll, or a painting the child may make, or the pictures in a picture book.

THE CASE OF CINEMA

It will be seen that the extension of the term 'sign' in Peirce is far broader than that in the semiotic of Saussure. Thus Saussure's account touches only the tip of the iceberg in terms of what can function as a sign for Peirce. But why should we follow Peirce, and employ a far broader use of sign, a far broader semiotic and one that potentially allows anything (almost anything?) to operate as a sign, given the right circumstances? In particular, what do we gain by extending the notion of a sign so far beyond its traditional paradigm case of language? One clear area to benefit from the broader semiotic of Peirce is the cinema, as Wollen so astutely identifies in his 1968 essay *The Semiology of Cinema*.

   Now, it will be noticed that I gave an example of an icon as a painting of a person, due to the resemblance. But had I given the example of a photograph of a particular individual, I would have had to revise this categorisation to an index, since a photograph corresponds to its subject in virtue of a physical connection brought about by the effect of light reflectance from the sitting subject to the chemical substance that comprises the print. Peirce is quoted as saying:

> this resemblance is due to the photographs having been produced under such circumstances that they were physically forced to correspond point by point to nature (Wollen, 1998, p. 84).

The accompanying presence of iconicity (the resemblance to the sitter) in this primarily indexical sign is not a problem for Peirce, since indexicality, as the second category, cannot occur anyway without the prior category of iconicity. But there is not yet in this example any of the characteristics of the third category of symbol; no conventional, rule based association that the photo is dependent on in order to signify its sitter.

This—the escape from the necessity of symbol in the Peircean or Saussurean sense—is of importance, for instance, in the medium of silent cinema, which eludes analyses based on language as the primary form of signification. Whether a film be iconic (as in animation) or indexical (as in photographic), as a medium, it gives less recourse to analyses based on the conventional forms of language as symbol. In fact, even where the silent film does have recourse to the use of language, as in the verbal commentaries added by 'explainers' in the era of silent movies in Japan, this inclusion of the symbolic can be added to the film without detracting from the more prominent iconic and indexical aspects of the cinema as sign.

The possibility that cinema can incorporate all three types of sign—icon, index, symbol—as evidenced in the examples above affords Wollen the basis on which to give an account of film *style* that draws upon these three types of sign, according as each is given more or less prominence by the cinema in question. So we see in cinema the school of Realism, which emphasises the indexical: employing non professional actors, shooting on location, realistic lighting effects and editing cuts, and representing real life plots. Alternatively, early cinema in particular, deprived of speaking and so doubly free of the verbal code of language, developed Expressionism, an iconic and symbolic, but essentially visual presentation: strangely unreal, staged, and (in black and white) involving evocative and atmospheric use of lighting, and employing techniques of falsification such as unrealistic cuts, and exaggerated make up and costume. These characteristics of Expressionism contrast strikingly with the later Realist movement.

These give us one example of the application of Peirce's sign trichotomy at the level of style rather than of individual sign. While there are conventional codes at work in the cinema, cinema syntax seems to prefer the indexical e.g. the use of editing to indicate simultaneity, or the iconic e.g. the close up used in personally poignant moments, to the symbolic e.g. the pages of a calendar peeling off to indicate the passage of time. In addition, the invention of animation enabled an iconic style free from even the necessary indexicality of photograph film, where imagination and style could conjure up any invented creation, as painters had been able to do for so long.[3]

Despite the prevalence in medium and in style of iconicity and indexicality in cinema, I think we can still see a particular place for symbol in cinema when we consider one of Peirce's further threefold divisions within his semiotic. Peirce further divides *symbol* into *term*, *proposition* and *argument*. Cinema has little use for terms since it can show what terms must say; for example, it show us the wide blueness of the sky. Nor are propositions often required since cinema can reveal or indicate what propositions must state; for example, it shows us the revolver in the hand of the murderer. But I think an association can be made between narratives and arguments. A film can be seen as constructing an argument by what it selects to present to us—a combination of script, direction and editing. The 'general law' or principle that unites these selected particulars or circumstances is the narrative. Leaving aside the rhetoric of film, or how it appeals to us psychologically, we can see that its temporality enables narrative and argument in a way that a still photograph or a painting would struggle to. The multiplicity of presentation, the suggestion of a hypothesis that may unite these instances, and we have the parts we need, functionally, to reach the conclusion, be it a general claim or a resolution. So a film may teach a lesson in the same way that a story can, like the boy who cried wolf, or it may leave our conclusion open ended, but furnish our imagination with the raw data to construct our own hypothesis, our own understanding of the film.

So following Jakobson we might agree with Wollen that the symbolic is the *submerged* aspect in cinema, whereas in literature we experience the iconic as submerged—in alliteration, the pathetic fallacy, metaphor and meter—and the indexical as non explicit, if not entirely submerged, as in the use of pronouns and the indirect denotations of objects in the narrative world (Wollen, 1998). Rather than minimising the iconic and indexical aspects of cinema by imposing the sign functions of literature onto the medium of film, we need to see that the sign functions of cinema operate differently. But to do this a semiotic is required which allows for an analysis *which does not have to prioritize the verbal language code above all others*. Such a semiotic also opens the way to a deeper appreciation of the semiotic functioning in mediums where the verbal or symbolic code is primary but not exclusive, such as poetry and literature; to an understanding, in other words, of the qualitative (iconic), indexical (factual or fictional), metaphoric and poetic (both iconic for Peirce) aspects of literature or verbally conveyed narratives. These literatures may be prima facie symbolic, in that they are constructed in words, but the experience we gain from them is perhaps more akin to cinema in its iconic and indexical aspects.

These 'submerged' iconic and indexical elements of language, as opposed to its symbolic aspects, may be indicated in, for example, Sartre's distinction between poetry and prose. According to Sartre, prose passes by the medium it inhabits, the words, to the object it signifies. It is entirely purposeful and does not even linger on the words that it uses to achieve its end (Sartre, 1948). Similarly, we saw Peirce's definition of symbol as 'a sign fit to be used as such because it determines the interpretant sign' (Peirce, 1998, p. 307). Poetry, for Sartre, possesses a different nature, requiring us to attend to the words themselves if not as objects, at least to their *qualities*. This is an iconic sense in Peircean terms. Further, if we look at Peirce's description of metaphor we see an account consistent with the creation of an iconic interpretant via the medium of (symbolic) language.[4]

THE TRIADIC SIGN RELATION

The trichotomy of icon/index/symbol is an important and useful division of signs. But there is a more fundamental triad at work in Peirce's conception of signs, since for Peirce, all signs have in their essence a triadic nature. There are *three* parts that stand together in this triadic 'sign-relation', viz, an object, a sign, and an interpretant.[5] So the basic sign structure is this:

> I define a sign as anything which is so determined by something else, called its Object, and so determines an effect upon a person, which effect I will call its interpretant, that the latter is thereby mediately determined by the former (p. 478).

Signs must have an irreducibly triadic structure. The *parts* termed 'sign' and 'object' can be taken roughly in their common usage here, and it is the relation between the sign and its object that the icon/index/symbol trichotomy primarily pertains to. The interpretant is to be understood as that which is interpreted or understood by, for instance, a person. The interpretant is our understanding of the sign-object relation, the effect or the experience we gain. So, if the sign-object relation is one of iconicity

then the interpretant is iconic. The interpretant is grounded in this sign-object relation: since the interpretant is an outgrowth of this relation, it replicates this relation so that the object must stand in the same relation to the interpretant as it does to the sign. The existence of the sign-relation depends upon there being an *interpretant*, as well as a *sign* and an *object*. The relation between sign and object can subsist independently of the interpretant, but it is only with the inclusion of the interpretant that we can truly call a sign a sign.

It is therefore the interpretant—the effect of the sign-relation, based on the sign-object relation—that interests us in determining the nature of a sign within the trichotomy of icon/index/symbol, and not the prima facie medium of the original sign. It is our recognition of the sign-object relation that determines the interpretant, and not some feature inherent to the *medium* of the sign. So, to refer to a word as a symbol is to fail to recognise that a word may function in different sign-object relations. For example, a pronoun may be an index, a general term a symbol, and a metaphor an icon.

Potentially, then, apparently the *same* sign may operate in different aspects. For example, as a graphologist (handwriting expert) I may attend to your signature iconically, to see which aspects of the lines and curvature resemble features of other handwriting. Or as a teacher I may attend to your signature indexically, as when you write your name in a register indicating that it was you who attended the class. Or as a lawyer I may attend to your signature symbolically, as your signature on a contract can be viewed as your assertion of the proposition that you agree to the terms and conditions wherein. While the sign-object relation is key to the distinction, it is through the interpretant that I come to recognise this relation in the sign. Signs may well exist in potentiality as signs prior to this triadic relation, but the interpretant is my key to the sign relation pertaining now. The trichotomy of icon/index/symbol as sign-object relation is the *ground* of the interpretant.

We can understand Peirce's claim that 'anything can be a sign', since the essential triadic sign relation can employ any item as a sign: so long as the relation of sign-object interpretant is satisfied, the medium of the initial sign may be anything—a word, an idea, a picture, a sound, a smell, an object, a gesture, a feature. A sign is not a type of thing but a triadic relation completed by the formation of the interpretant, so any semiotic based on the notion that signs can be understood or categorised according to what type of thing or medium they are (i.e. picture/word/gesture) will be mistaken.[6]

But in understanding this we must accept two provisos 1) the person who recognises the sign cannot dictate the interpretant—the sign has an independence of its receiver in virtue of the prior sign-object relation and 2) that a sign must be understood under a paradigm of action—sign-action—in order to be understood at all. Here Fisch is helpful:

> The fundamental distinction is not between things that are signs and things that are not, but between triadic or sign-action and dyadic or dynamical action. So the fundamental conception of semiotic should be defined in terms of semiosis rather than sign ... (Fisch, 1986, p. 330).

The sign-action therefore begins, but is not completed, before that sign becomes understood by an interpreter. Grounded as it is in the sign-object relation, this use may

be conventionally grounded as in a symbol as rules of use, or it may be grounded in the pre-existing relationship between a sign and its object, such as similarity (icon) or existential connection (index). It is the step to an interpretant that makes this action triadic.

What is notably absent in this triadic sign-relation however is a role for the intention of the author of the sign. We begin with the sign (or representamen), we consider its relation to its object, and the reception of this relation in the interpretant. Is there no role for the author's intention in the sign-action then? The author of the sign creates it and puts it in the public domain. Here the sign takes on an independence of the author and a dependence on its audience. The interpreter makes the sign-action, grounded on the sign-object relation. The act of writing, for example, is therefore essentially dependent on the engagement of the writer with her audience, on the engagement and fulfilment of the sign in its social world, as we find in Sartre (1948). That is not to say that the novel or painting does not exist as an imaginary object or artwork in some sense independently of the audience—it also has an existence, albeit imaginary, beyond the pages or the canvas that can be burnt and destroyed. But it is in abeyance until it is read or seen. Dufrenne identifies this aspect as the 'performance' of the aesthetic object (1973). If we remember that the performance can be located in this way, for example, in the reading of a novel by an individual, we can equate it to the sign-action of the interpreter in Peirce. This focus in Sartre, Dufrenne and Peirce on the reception of the aesthetic object, its 'performance', the sign-action that completes the sign, takes an opposite approach to say the Intentionalism of Stephen Neale (2010) where the sign is understood fundamentally in terms of the intentions of the author. The sign then, for our trio here, retains an independence of the author: it essentially or logically invokes an other than its creator (even if this other is the creator taking the role of other as in dialogic thought). And to be known by another, even logically, requires that the sign gain its independence of the author since it must be *exposed* to another. Dufrenne sees this as the essential sensory aspect of the aesthetic object, Sartre the unconditional engagement of the author in her social world, and Peirce the essential logical structure of the sign-action relation.

POST SCRIPT

All of this may be well and good as an account of Peirce's theory of signs, given the types of example used—language, cinema, novels, artworks. However, Peirce's theory of signs is described as general for good reason. I have made a presumption in this account of Peirce that is in fact not necessarily correct. I have presented the interpretant as something which is to do with an effect on a person, an interpreter. In many cases this would be true.[7] But Peirce's is a general theory of signs and as such does go beyond the realm of persons.

I am indebted to Fisch on this point, who cites the following passage from Peirce on the nature of the interpretant and the interpreter, from Peirce's correspondence with Lady Welby, both in 1908:

> I define a Sign as anything which is so determined by something else, called it Object, and so determines an effect upon a person, which effect I call its

Interpretant, that the latter is thereby mediately determined by the former. My insertion of "upon a person" is a sop to Cerberus[8], because I despair of making my own broader conception understood (Peirce cited in Fisch, 1986, p. 342-343).

Given Peirce's commitment to the idea of synechism or continuity, we can perhaps assert that the difference between the world and thought is one only of degree.[9] If sign-action can pertain to thought, then perhaps sign-action can pertain in the world also. Perhaps semiosis in not an action only of persons, but also applies to the actions of the world. The action of general laws in nature, the operation of machines, even the structures in the building blocks of physics and biological organisms might be understood as operating akin to Peirce's sign-relation. This may seem far too general an idea of semiosis, but it would accord with one area of Peirce's philosophy where a social position is also most entrenched—the acquisition of knowledge of the world. In Peirce thought and reality have an interdependence: the 'real' is that towards which the community tends in its definite increase in knowledge. But if there is a deep continuity between thought and reality, if semiosis is indeed a common feature of both mind and world, this could help to explain how it is that we come to know the world as it really is.

NOTES

1   'An *Icon* is a sign which refers to the Object that it denoted merely by virtue of characters of its own and which it possesses, just the same, whether any such object actually exists or not ... Anything whatever, be it quality, existent individual, or law, is an icon of anything, in so far as it is like that thing and used as a sign of it' (Peirce, 1998, p. 291).
2   'An *Index* is a sign which refers to the Object that it denotes by virtue of being really affected by that Object' (p. 291).
3   This pictorial use of cinema, being perhaps the most iconic, can in fact be achieved by photographic or animated means, or a combination of both: consider the various animation and CGI techniques.
4   The three divisions of Icon (Peirce uses the term Hypoicon at this stage) are as follows in full:
     'Hypoicons may be roughly divided according to the mode of Firstness of which they partake. Those which partake of simple qualities, or First Firstnesses, are *images*; those which represent the relations, mainly dyadic, or so regarded, of the parts of one thing by analogous relations in their own parts, are *diagrams*; those which represent the representative character of a representamen by representing a parallelism in something else, are *metaphors*' (p. 274). Metaphors, as the third division of Icons, are grounded in the similarity or likeness of the representative functions.
5   Peirce alternatively refers to them as the representamen (sign), object and interpretant.
6   We can understand now how a verbal metaphor can be an iconic sign: where the superimposition of two representative functions in the form of words can partake of a connexion of likeness or similarity that grounds the iconicity of the interpretant.
7   For example Peirce writes '... I now limit it, so as to define a sign as anything which is on the one hand so determined (or specialized) by an object and on the other hand so determines the mind of an interpreter of it that the latter is hereby determined mediately, or indirectly, by that real object that determines the sign ... The determination of the Interpreter's mind I term the interpretant of the sign' (Peirce cited in Fisch, 1986, p. 342).
8   In the classical world, to get past Cerberus (the three headed dog who guarded the underworld), he had to be given something: so 'a sop to Cerberus' means, you have to pay a small price to the guardian (in Greek mythology it was cakes dipped in honey) to get access to the further mysterious or higher realms or to avert or avoid a significant discomfort.
9   Peirce does in fact claim that matter is effete mind.

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