

# C. S. Peirce's Definition of Symbol in §14 of the *New List*<sup>1</sup>

Masato Ishida  
Department of Philosophy  
Pennsylvania State University  
mzi101@psu.edu

## Abstract

The main body of this paper consists of a commentary on §14 of Peirce's 1867 paper "On a New List of Categories," in which Peirce derives the concept of Symbol within his general theory of representations. Rather than aiming at a comprehensive study of the *New List*, the paper closely observes how Peirce arrives at his definition of Symbol in the *New List* by elucidating its main ideas. The paper suggests that Symbol occupies a unique conceptual locus in Peirce's theory of categories and that his definition of Symbol in the *New List* is consistent with Peirce's later formulations of Symbol. The paper includes five brief case studies of Peirce's formulations of Symbol over the years 1866 - c.1911.

## 1 Introduction

On 14 May 1867, C. S. Peirce presented a brief article entitled "On a New List of Categories" to the American Academy of Arts and Sciences, which was published in its *Proceedings* in the following year. In §14 of this article, Peirce demonstrated how signs could be classified into Icon, Index, and Symbol. The article — hereafter abbreviated as the *New List* — remained a significant achievement for Peirce. The "gift I make to the world," he wrote around the time of its composition, continuing: "In it I shall live when oblivion has me — my body" (W 2: 1, 1867). Twenty-eight years later, Peirce famously commented that the article was "perhaps the least unsatisfactory" paper he ever produced from a "logical point of view" (CP 2.340, c.1895). After more than forty years, Peirce still perceived "the substance of my central achievement" to be focused in the *New List* (MS L 387b: 327, 1908). These, together with other similar remarks, indicate that the *New List* had fundamental significance for Peirce.

There are, however, much debated mysteries about the *New List* as well. The *New List* is not only an important paper but exhibits obscurity in a number of ways. Thus Murray Murphey writes: "Certainly of all Peirce's published papers there is none which is so cryptic in its statement of essentials, so ambiguous in its definition of terms, so obscure in its formulation of the central doctrine, or so important in its content."<sup>2</sup> The obscurity, not incidentally, extends to the definition of Symbol in the *New List*, which is on my reading this: A Symbol is a sign

---

<sup>1</sup> In writing this paper I owe particular thanks to David Agler and Daniel Brunson for their detailed comments and suggestions; to Tom Short for his critical reading of a previous draft; to Doug Anderson for sustained encouragement; and to several other readers, including the peer reviewers of this journal, whose suggestions I have found very helpful.

<sup>2</sup> Murphey, *The Development of Peirce's Philosophy*, p.66.

whose quality is imputed to its object. As readers of Peirce may notice, however, this definition of Symbol sounds very different from the many formulations of Symbol Peirce offers in his later writings. It would then be natural for us to wonder whether Peirce's definition of Symbol in the *New List* produces a coherent echo with the many subsequent formulations of Symbol he offers.

My own view on this last matter is that the definition of Symbol in the *New List* is remarkably consistent with most of what Peirce says about Symbol in later years, hence in part explaining Peirce's high evaluation of the *New List*. It would be, however, premature to make such a judgment at this point. For it is necessary to analyze and understand how Peirce arrived at his definition of Symbol in the *New List* before developing a much broader opinion. In what follows, my primary aim is to reconstruct Peirce's derivation of Symbol in the *New List* in some detail. More specifically, I will focus on §14 of the *New List*, in which Peirce draws the conclusion that there are three kinds of representations, of which the last, the third, is Symbol.

I assume that readers have some idea of what 'sign,' 'icon,' 'index,' and 'interpretant' mean for Peirce, although I will very closely follow the derivation of Index as well. We shall not attempt to do justice to the *New List* in its entirety.<sup>3</sup> Instead, the paper concentrates upon the central ideas that lead to the derivation of Symbol in the *New List*. Once this is done, an independent section will be devoted to five brief case studies of well-known formulations of Symbol given by Peirce, which range from 1866 to c.1911. The texts considered there are of course highly selective, but enable us to observe how the idea of Symbol in the *New List* could survive in the later semeiotics of Peirce.

The argument of §14 of the *New List* is extremely dense. It is, therefore, helpful to note in advance that Peirce's argument consists of two steps. First, Peirce will differentiate Index from Icon. Second, he will differentiate Symbol from Icon and Index. With this in view, in sections 2 and 3 below, which correspond to these two differentiations, I will present Peirce's text and a series of commentaries on it. The first step is explained by Peirce in fewer than 150 words, the second step in fewer than 90 words. Another complicating issue is that the *New List* was written under the strong influence of the opus magnum *Critique of Pure Reason* (1781) by Immanuel Kant.<sup>4</sup> Minimal information concerning Kant will be provided in 2.2.3.

Finally, a remark on terminology: For the sake of simplicity, we will not distinguish between 'representation' and 'sign' or between 'likeness' and 'icon' in this paper. In doing so we follow Max Fisch<sup>5</sup> as well as the editors of the *Collected Papers of Charles Sanders Peirce*.<sup>6</sup> Readers who do not specialize in Peirce studies are well advised to take them as synonymous.

<sup>3</sup> For a more comprehensive analysis of the *New List*, including the genesis of the text, see De Tienne, *L'Analytique de la Représentation chez Peirce: La Genèse de la Théorie des Catégories* (1996).

<sup>4</sup> Peirce later writes: "My own list grew originally out of the study of the table of Kant"(CP 1.300, c.1894).

<sup>5</sup> Fisch, *Peirce, Semeiotic, and Pragmatism: Essays by Max H. Fisch*, p.324.

<sup>6</sup> See the editorial notes on p. 295 of the *Collected Papers*, volume 1.

## 2 The Derivation of Index

### 2.1 Peirce's Text

The first step of the argument occupies roughly two thirds of §14. The theoretical consideration is done in just one sentence, from which Peirce proceeds to declare that there are two kinds of 'relation.' The last two paragraphs are additional explanations which I will return to in 2.2.6. Here is the text that differentiates Index from Icon (W 2: 55.20-34, CP 1.558):

§14. A quality may have a special determination which prevents its being prescinded from reference to a correlate. Hence there are two kinds of relation.

1st. That of relates whose reference to a ground is a prescindible or internal quality.

2d. That of relates whose reference to a ground is an unprescindible or relative quality.

In the former case [the '1st'], the relation is a mere *concurrence* of the correlates in one character, and [therefore] the relate and correlate are not [sharply] distinguished. In the latter case [the '2d'] the correlate is set over against the relate, and there is in some sense an *opposition*.

Relates of the first kind are brought into relation simply by their agreement. But mere disagreement (unrecognized) does not constitute relation, and therefore relates of the second kind are only brought into relation by correspondence in fact.

### 2.2 Commentary

#### 2.2.1 Keywords in the First Two Sentences

The above in 2.1 is the entire text that purports to show that there are, to this point, exactly two kinds of representations, or signs, which will be termed Likeness or Icon, and Index. Once again, the first two sentences from §14 read:

A quality may have a special determination which prevents its being prescinded from reference to a correlate. Hence there are two kinds of relation.

Note that the first sentence is the only theoretical explanation Peirce offers. In order to decipher these two sentences, I will explicate what Peirce means by **Quality**, **Correlate**, **Relation**, and **Precision** (its verb is *prescind*). These are fundamental ideas that cannot be skipped. The concepts underlie both Peirce's differentiation of Index from Icon, and Symbol from Icon and Index.

#### 2.2.2 Quality

A quality in the *New List* refers to a determination of an underlying substance that we are conscious of in a proposition. An example Peirce gives in the *New List* is the proposition, "This stove is black." The predicative part 'is black' is the **Quality**. The abstract blackness considered in itself is called a 'ground' by Peirce. 'This stove' refers to the underlying substance that the proposition describes as being black. Thus the latter, substance, is predicated of by the former, the **Quality**, which results in a formation of a proposition.

### 2.2.3 Correlate

In a proposition some property is ascribed to an object. More importantly, it is through the formation of a proposition that we become aware of what we were thinking about a given object. That is, I form for instance the proposition “This stove is black” in my thought, and *then* I can say that I am definitely grasping what I was thinking about the perceived object.

Peirce's *New List* develops an analysis of this process of proposition-formation. It aims at analyzing the ordered structure of the successive phases of cognition that results in the formation of a proposition. In this context, **Correlate** refers to each phase of an object that appears in the stream of that formation. Although Peirce uses the term **Correlate** in much a wider sense than Kant does, a helpful analogue of the idea can be found in Kant's *Critique of Pure Reason*. Kant writes (p.225 [A198-199/B244]):

The situation, then, is this: there is an order in our representations in which the present [stage of cognition], so far as it has come to be, refers us to some preceding state [preceding cognition] as a correlate [Korrelatum] of the event which is given; and though this correlate is, indeed indeterminate, it none the less stands in a determining relation to the [present] event as its consequence, connecting the event in necessary relation with itself in the time-series.

Kant is saying many things here, but we shall confine our attention to just three points. First, a **Correlate** is at the preceding stage of cognition if seen from the perspective of the present. Second, determination increases as we move along the time-series. Third, the succession is not arbitrary: It has a logical structure, a determining relation, involved. These lead to the view that thought becomes structured as well as determinate when a judgment is formed (Kant's view) or when a proposition is formed (Peirce's view). This is the base line.

Every stage of thought thus has a preceding stage. The phase of an object appearing at each stage, however indeterminate, is called a **Correlate** by Peirce in this context. Therefore, a **Correlate**, if you please, refers to each of the many transitional ‘snap-shots’ of an object that will eventually be described in the proposition as having such and such a quality. This is why in the *New List* Peirce warns us that the objects indicated by the subject term of a proposition is to be seen as *always potentially plural* (W 2: 57.33-58.3, CP 1.559):

The objects indicated by the subject (which are always potentially a plurality,— at least, of phases or appearances) are therefore stated by the proposition to be related to one another on the ground of the character indicated by the predicate.

The phrase ‘related to one another on the ground of ...’ indicates the *logical structure* which would correspond to the “determining relation” mentioned by Kant above. In this manner ‘phases’ and ‘appearances’ — note the highly Kantian term ‘appearance’ — of objects are all **Correlates** for Peirce.

More generally, if X represents Y, this roughly means, for both Kant and Peirce, that ‘Y is seen through X’ or equivalently ‘X is a representation of Y.’ In this more general context, Peirce calls Y, namely, that which is seen through the representation, the **Correlate**, whereas X, namely, that through which we see the object of representation, is called the ‘relate.’ Thus if a person reads off the direction

of wind through the motion of a weathercock, the weathercock is the *relate*, the wind is the **Correlate**. I mention this because the use of the term 'relate' in this last sense is found in the text presented in 2.1. The weathercock example will be discussed again in 2.2.6.

#### 2.2.4 Precision

**Precision** is a method of differentiation introduced in §5 of the *New List*. Its nearest meaning is *non-reciprocal abstraction*. The method is used to (1) derive Peirce's *categories* (which is why the *New List* is entitled "On a New List of Categories"); and (2) to differentiate Index from Icon, and Symbol from Icon and Index. Obviously, (2) is an application of (1). Hence we need to take a look at (1) before dealing with (2). It is important to note that **Precision** is the very key to the understanding of the two central derivations in the *New List*. I will, therefore, divide the explanation into three stages: **(i)** I will give an **Overview** of the idea; **(ii)** I will turn to **Peirce's Explanation** and give a **Definition** based upon it; **(iii)** I will consider three **Examples** to flesh out the idea.

**(i) Overview of the Idea.** I said in the previous section that the *New List* aims at analyzing the ordered structure of the successive phases of cognition that results in the formation of a proposition. The intuitive idea of **Precision** is to reverse this formation process. That is, **Precision** is used to determine the logical order in which the indeterminate thought without explicit structure has been shaped into a determinate propositional structure.

The philosophical view on which the method of **Precision** is conceived by Peirce may require several more lines of explanation. Following Kant, Peirce sees *cognition* as a development of thought in terms of determination and unity. 'Unity,' a word used many times in the *New List*, is borrowed from Kant's famous concept of 'apperception [Apperzeption].' In simplest outline, 'apperception' refers to the synthesis of representations through the forms of intuition and understanding. Categories are forms of the latter, of understanding, that work as *unifiers* of representations. Hence the more the categories are employed, the more the immediate substance is unified, synthesized, and shaped into a more mediated structure of thought. For Peirce the process comes to a temporary arrest with the formation of a proposition, which is the most developed form of unity in this picture.

But how is a proposition formed? In what order are such categories employed? To answer these questions, Peirce works backwards by reversing the formation process. That is, assuming that a proposition is formed in thought, Peirce uses **Precision** to peel off, one by one, the categories that effected the higher unities. In other words, starting from the surface structure, we want to reveal the deeper conceptual layers that have constructed the object of cognition into what it is. Thus the *first* category we shall discover by **Precision** would be the *last*, or the shallowest, category that was added to or integrated into the object at the final stage. The *last* category that we shall discover by **Precision** would be the *first*, or the deepest, category that was applied to the object at the beginning of this pro-

cess.<sup>7</sup> Accordingly, when we have two categories *X* and *Y*, Peirce needs a method to determine which of the two was the deeper or the more immediate category that was integrated into the object prior to the other. **Precision** is designed to do this work. The idea will become clearer after we give a definition of **Precision** in (ii), and also after seeing examples in (iii) below.

**(ii) Peirce's Explanation and Our Definition.** Peirce discusses **Precision** in §5 of the *New List*. Since readers can always go back to the original paper, I will only consider the first two sentences of §5. Peirce's explanation is this (W 2: 50.25-30, CP 1.549):

§5. The terms "precision" and "abstraction," which were formerly applied to every kind of separation, are now limited, not merely to mental separation, but to that which arises from *attention* to one element and *neglect* of the other. Exclusive attention consists in a definite conception or *supposition* of one part of an object, without any supposition of the other [part(s) of the same object].

Here is what Peirce is saying. Imagine you see a square object colored red. You form the proposition 'The square thing is red.' But the 'thing' is recognized as such because the conceptions of 'square' and 'red' were attributed to it. Such conceptions play the role of categories. The question is this: 'Square' or 'red' – which was the more immediate category that was applied to the 'thing' first? Read the passage above again. Observing the red square thing, we (a) *attend* to the 'red' color of the thing to the *neglect* of the 'square' shape; (b) we *attend* to the 'square' shape of the thing to the *neglect* of the 'red' color. If (a) is successfully performed while (b) fails, the 'red' is the more mediate or shallower conception, and the 'square' is the more immediate, or deeper, conception that was applied prior to 'red.' Conversely, if (b) is successfully performed while (a) fails, the opposite is the case. If both (a) and (b) fail or obtain *simultaneously*, no conclusion follows. Based upon this, we give the definition of **Precision** as follows:

**Definition**

Let *X* and *Y* be categories in the sense just explained.

1. [Meaning of *Precision*] If we can *attend* to, or definitely comprehend, *X*, to the *neglect* of *Y*, we say that *X* can be *precinded* from *Y*. If *X* cannot be *attended* to, or definitely comprehended, to the *neglect* of *Y*, we say that *X* cannot be *precinded* from *Y*.

2. [Use of *Precision*] Suppose *X* can be *precinded* from *Y*, but *Y* cannot be *precinded* from *X*. Then we judge that *X* is the more mediate category than *Y*, meaning that *Y* is the more immediate category and was employed prior to the employment of *X*.

I know this is confusing. But there is a relatively quick way to keep track of the principle. **Precision** means non-reciprocal abstraction. Thus successful **Precision** of *X* from *Y* — and in this direction alone — implies that *X* is more abstract and hence more mediate than *Y*. On the contrary, if *X* cannot be *precinded* from *Y*, but *Y* can be *precinded* from *X*, then *X* is the more concrete or immediate category which is nearer to 'substance' in the sense briefly explained in 2.2.2. A diagram

<sup>7</sup> The adjectives 'deep' and 'shallow' are used for expository purposes. If the spatial metaphors of 'deep' and 'shallow' sound misleading, take 'deep' to mean 'immediate' or 'external,' 'shallow' to mean 'mediate' or 'internal.' The latter adjectives are actually used by Peirce.

would be helpful: If *X* can be precinded from *Y* but *not* vice versa, *X* is more abstract and mediate, meaning that *Y* lies deeper toward substance in comparison to *X*. See Figure 1 below.<sup>8</sup>

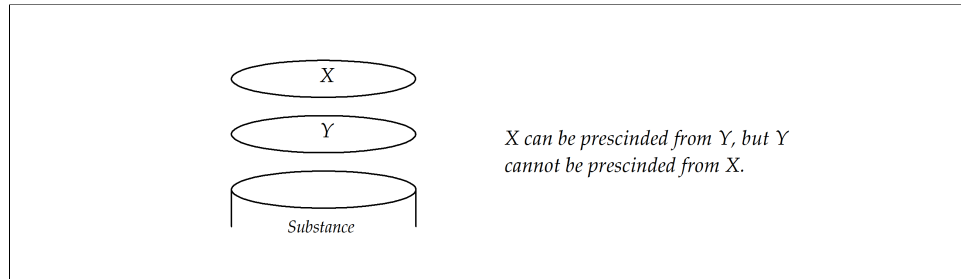


Figure 1. Precision. Layer *Y* is more immediate or nearer to Substance than layer *X*.

**(iii) Examples.** Since we are not concerned with the legitimacy of **Precision** in this paper, I will only consider three examples in order to flesh out the idea a little further. The first example is the **Precision** of space from color, which Peirce explains in §5 as follows (W 2: 51.1-4, CP 1.549):

I can precind red from blue, and space from color (as is manifest from the fact that I actually believe there is an uncolored space between my face and the wall); but I cannot precind color from space, nor red from color.

Recalling that **Precision** is useful only when it fails in one direction, we see that the only *full* example Peirce mentions is the **Precision** of space from color but *not* vice versa. The question returns: ‘Space’ or ‘color,’ which is the more mediate category? Thus we start with a colored space. By the *definition* of **Precision**, we have to do the following: (a) *attend* to the ‘space’ to the *neglect* of its ‘color’; (b) *attend* to the ‘color’ to the *neglect* of the ‘space’ it colors. As Peirce explains in the parentheses, it is obvious that (a) can be successfully performed. However, if we start with the colored space and try to *attend* to the color to the *neglect* of the space it colors, the space will have to lose all its dimensions, such that there remains no dimension that the color can cover at all, meaning that (b) fails. Thus space is the more mediate, color the more immediate.

Unfortunately, this is the only full example Peirce explains in the *New List*. But we can think of other examples on our own. Imagine you hear a note from a musical instrument. It is heard with pitch and tone. “A violin has played a B-flat” you might say to yourself. ‘Pitch’ and ‘tone,’ which is the more mediate? We can *attend* to the pitch of the note to the *neglect* of tone, since this is what musicians do when they tune the strings. We cannot, however, *attend* to the tone to the *neglect* of pitch, because a tone without pitch is auditorily impossible. Accordingly, pitch is the more mediate, tone the more immediate. This makes natural sense because if we hear a physical sound, such as someone knocking on the door, we can perceive its qualitative tone quite immediately, but even the trained ear of the musician will require a moment of reflection to determine its pitch.

<sup>8</sup> Figures in this paper are merely auxiliary. They are not meant to replace definitions or verbal explanations in general.

Finally, since Peirce was a scientist as well as a mathematician, consider the equation of a circle with radius  $r$  centered at the origin of the Euclidean plane. That is, we start with the equation  $x^2 + y^2 = r^2$ . We see the structure of the equation, the constant  $r$ , and the two variables  $x$  and  $y$  embedded in the equation. Which is more immediate, the structure of the equation or the two variables? We can *attend to*, or definitely comprehend, the variables  $x$  and  $y$  to the *neglect* of the structure of the equation, but we cannot *attend to*, or definitely comprehend, the structure of the equation to the *neglect* of the variables. Thus the structure of the equation is more immediate, the variables more mediate and abstract. This makes natural sense, too, because the variables, taken by themselves, refer to any real number, whereas when embedded in the equation their ranges are restricted and hence particularized to small subsets of the real numbers. When prescinded and liberated from the equation, therefore, they will certainly have greater, abstract generality. Further examples are left to the reader.

### 2.2.5 Relation

**Relation** is the second of the three categories Peirce derives in the *New List* by the method of prescision. It is better to have a sense of the overall derivation of the categories, which I referred to as derivation (1) at the very beginning of 2.2.4. I will first present the 'new list' of categories Peirce arrives at in §11 of the article (W 2: 54.33-39, CP 1.555):

§11. The five conceptions thus obtained, for reasons which will be sufficiently obvious, may be termed *categories*. That is,  
 BEING,  
     Quality (Reference to a Ground),  
     **Relation (Reference to a Correlate)**,  
     Representation (Reference to an Interpretant),  
 SUBSTANCE.

The boldfaces on the line of **Relation** are my emphasis. Note that the 'list' has the form of a sentence, with four commas and a period, indicating that the list is ordered. In the interest of space we will not concern ourselves with the technical terms. But the minimal observation that has to be made is that Quality, **Relation**, and Representation are *defined* by Peirce, respectively, as 'Reference to a Ground,' '**Reference to a Correlate**,' and 'Reference to an Interpretant.' That is, when Peirce uses the phrase 'reference to a correlate,' for instance, we squarely take it to mean **Relation**, and vice versa.

Why is **Relation** located where it is in the list? To start with, the top category BEING and the bottom category SUBSTANCE are located where they are because the whole business is to analyze the process of proposition-formation as explained in 2.2.2 and 2.2.3. Seen from this angle, BEING and SUBSTANCE are just markers, so to speak, of the two ends of the analysis. That is, BEING is the copula of the proposition, the most mediate of the categories; SUBSTANCE is the material to be structured and organized into a propositional structure, hence considered in itself the most immediate — that's all. Since BEING and SUBSTANCE are only markers, it is appropriate for our purpose to leave them with no further scrutiny.

Next, we only need to look at three sets of sentences taken from the last parts of §7, §8, §9 of the *New List*. Each set is followed by my two-sentence commentary.



**(i) Last Sentence of §7** (W 2: 53.4-5, CP 1.551)

Reference to a ground [Quality] cannot be prescinded from being, but being can be prescinded from it [Quality].

**Commentary:** By definition, this means that ‘being,’ which can be successfully prescinded from quality, is the more mediate or abstract. Equivalently, quality is one step more immediate, or deeper, down toward SUBSTANCE than being in the list of categories.

**(ii) Last Sentence of §8** (W 2: 53.13-15, CP 1.552)

Reference to a correlate [**Relation**] cannot be prescinded from reference to a ground [Quality]; but reference to a ground [Quality] may be prescinded from reference to a correlate [**Relation**].

**Commentary:** By definition, this means that Quality, which can be successfully prescinded from **Relation**, is the more mediate or abstract. Equivalently, **Relation** is one step more immediate, or deeper, down toward SUBSTANCE than Quality in the list of categories.

**(iii) Last Sentence of §9** (W 2: 54.14-15, CP 1.553)

Reference to an interpretant [Representation] cannot be prescinded from reference to a correlate [**Relation**]; but the latter [**Relation**] can be prescinded from the former [Representation].

**Commentary:** By definition, this means that **Relation**, which can be successfully prescinded from Representation, is the more mediate or abstract. Equivalently, Representation is one step more immediate, or deeper, down toward SUBSTANCE than **Relation** in the list of categories.

What Peirce is doing should now be clear. He is deriving a hierarchy of ‘categories’ by the method of precision, which he alludes to as a “gradation” among “conceptions” (W 2: 49.6-7, CP 1.546) at the very beginning of the *New List*. The higher a category sits in the list, the more mediate it is, namely, further away from substance at the bottom, which is nearest to immediate experience. Hence the list is intended to reflect the structure of cognition, which starts from having sense impressions, such as sensing colors, and terminates with the formation of a proposition, such as ‘This stove is black.’ A modified list of categories is presented in Figure 2. Compare this with Figure 1 and with the first quotation from Peirce in the current section 2.2.5.

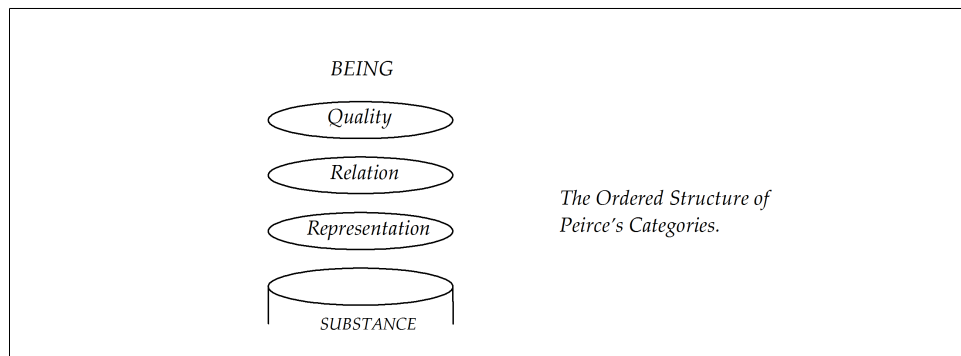


Figure 2. Relation as the Second Derived Category in the *New List*.

As we can see, **Relation** sits below Quality and above Representation. Its nature consists in its reference to a correlate, a phase of some experienced object, but without reference to an interpretant. In short a **Relation** is just the pointing of a quality to a correlate without giving rise to an interpretation. It is *naked pointing*, if you like. Before moving on, it is also useful to observe in Figure 2 that the *deepest* of the three *derived categories* is *Representation*. It reaches into the most immediate or external layer of cognition, and for this reason Peirce says in §10 of the *New List* that representation “unites directly the manifold of substance itself.” He then adds: “It is, therefore, the last conception [category] in passing from being to substance”(W 2: 54.30-32, CP 1.554). Observe that this category, derived *last*, is the *first* category applied to substance since it *directly* unites substance. This is how the reversion mentioned in 2.2.4 (i) operates in the *New List*.

### 2.2.6 The Text Revisited

As I said, the arguments in the *New List* are complicated. Just to see the four basic key concepts appearing in the first two sentences of §14 — that is, quality, correlate, precision, relation — we needed all the discussion from 2.2.2 through 2.2.5. We now make a revisit to the first part of the text (W 2: 55.20-27, CP 1.558):

§14. A quality may have a special determination which prevents its being prescinded from reference to a correlate [relation]. Hence there are two kinds of relation.

1st. That of relates [signs] whose reference to a ground [quality] is prescindible or internal quality.

2d. That of relates [signs] whose reference to a ground [quality] is unprescindible or relative quality.

Look at the “1st” case. Unless the reader is a Peirce specialist, “relates” above may be taken to mean ‘signs’ as I have indicated in the brackets (see the last paragraph of 2.2.3). Now recall that a quality is generally prescindible from relation, since it sits higher in the list. The idea was that the more mediate or abstract can be *attended to* or definitely comprehended to the *neglect of* the more immediate, but the more immediate — hence lower in the hierarchy — cannot be definitely comprehended to the neglect of the more mediate. Accordingly, in the **Last Sentence of §8** we saw a moment ago, Peirce says that a relation ‘cannot’ — that is *never* — be prescinded from quality, but quality “*may be prescinded*”(my emphasis) from relation. In other words, it is also possible that quality may *not* be prescinded from relation.

Thus what the first sentence of §14 considers is this: What if, for some reason, a quality cannot be prescinded from relation? This means that, by the *definition* of precision, the quality can *not* be definitely comprehended to the neglect of the relation in which the quality stands to a correlate. When this happens, Peirce says that the quality has “a special determination,” whence it is differentiated into the “2d” case. Now since the whole consideration is intended to introduce the differentiation of Index from Icon, let us first examine what this “2d” case of Index says, by taking the familiar example of a weathercock considered as an Index of wind. After this, the same weathercock example will be used to consider the “1st” case as well.

So suppose I see my weathercock through the window of my house. When it is working, it is a sign of the direction of the wind. I think, for example, that there is a wind blowing along the driveway in the direction the weathercock heads. The *directedness* of the weathercock, its heading in a certain direction in response to the wind, is the essential quality of the sign, in the sense of ‘quality’ Peirce talks about in the first sentence of §14. As explained earlier, we may regard the weathercock to be the ‘relate,’ namely the sign, and the wind, its correlate. In order to see what an Index is, we consider the *prescision* relation.

If we attend to the *directedness* of the weathercock to the neglect of the relation between the weathercock and the wind, the *directedness* no longer makes sense, because without that particular relation, we will have to think that the weathercock is moving in some random way unrelated to the wind. It is important to see that this is perfectly possible. For instance, if my weathercock had been replaced by a fake weathercock with an internal motor, it may have been turning around for amusement not serving as a sign of the wind. Obviously, I cannot tell if this is *not* the case, by just watching the motion of the weathercock through my window. This means that the very quality of *directedness* I see in the weathercock vanishes, if that *relation* is neglected. Thus the quality of *directedness* cannot be *prescinded* from the *relation* in which the relate, the weathercock, and the correlate, the wind, stand. Look at Peirce’s passage again at the beginning of this section. For this reason, Peirce says that the quality is a “relative quality.” This means that the *relation* between the relate and correlate is essential to the very nature of the quality considered. This is what Peirce says in the “2d case,” and a sign with such a ‘relative quality’ is termed Index.

Now the “1st” case. Suppose I happen to see another weathercock in my neighbor’s yard, which appears very similar to mine. After a couple of seconds I notice that it is the similar colors of the two weathercocks that make them look alike. In such a case I am conscious of a pair of objects in which two similar colors are brought together in comparison. As before we must consider the *prescision* relation. Let the color of my weathercock be the quality I attend to, and remove the consciousness of that *paring relation*. Clearly, this does not alter the color of my weathercock at all, since what I have before my mind remains exactly the same. In such a case Peirce proposes to regard the quality as non-relative, or internal, since it can be attended to or definitely comprehended to the neglect of the relation in which the relate, one of the two similar colors, and the correlate, the other color, stand. This is, therefore, the case in which the quality is ‘prescindible’ from the relation or ‘reference to a correlate.’ Look at Peirce’s passage again. For this reason, Peirce says that the quality is “internal” to the relate. Since the quality of the sign is prescindible from the relation, it can be said to only depend on its own nature, and such a sign is termed Icon (or Likeness in the *New List*).

We can now return to the middle and last parts of the text presented in 2.1. With regard to the “1st” and “2d” cases, Peirce adds as follows (W 2: 55.27-30, CP 1.558):

In the former case [the ‘1st’], the relation is a mere *concurrence* of the correlates in one character, and [therefore] the relate and correlate are not [sharply] distinguished. In the latter case [the ‘2d’] the correlate is set over against the relate, and there is in some sense an *opposition*.

To see what the first sentence says, consider as an example the pattern of a polka-dot necktie. When we perceive such a tie, the slightly different but very similar colors of the detached dots will instantly merge together and form a single quality of interrelated dots. To use Peirce's favorite expression, the colors of the individual dots become 'welded together.' Take one dot as the relate, through which you see the other dots, or the 'correlates.' We do perceive the dots in relation to each other, which is why the dots work *together* as forming one unified pattern. But what is the nature of this *relation* in which the dots stand to each other? Clearly, we can prescind the relate — the one dot you focus upon — from its *relation* to other dots without changing its quality. Thus the "relation" is "a mere *concurrence* of the correlates in one character," and "the relate and correlate are not distinguished," for the dots appear welded together in one pattern or 'character.'

On the other hand, the second sentence of the citation above is better understood when taken together with the last part of Peirce's explanation. Here is what Peirce said (W 2: 55.31-34, CP 1.558):

Relates of the first kind [Icons] are brought into relation [with correlates] simply by their agreement [in some qualitative respect]. But mere disagreement (unrecognized) does not constitute relation, and therefore relates of the second kind [Indices] are only brought into relation by correspondence in fact.

The first sentence needs no explanation. But the second sentence moves fast. Peirce considers a situation in which there is no consciously recognized agreement among things, which are *nevertheless* brought together. The point is that, when the disagreement as such is unrecognized, no mind has brought them together as in the perception of a polka-dot pattern. But examples of this case abound. Most of the objects around us, say a cup and a pen, by no means share a recognized quality, but they accidentally sit together on the desk. Since their relations are not formed by virtue of any recognized agreement, Peirce simply says that we can characterize them as "correspondence in fact." This is why an indexical relation stands out conspicuously when there is but the slightest similarity between the relate and correlate(s). The relation is just 'brute fact,' as Peirce would put it. For this reason Peirce says that "there is in some sense an *opposition*." The boundary between two polka-dots, for example, is felt as much blurred, whereas the boundary between a cup and a pen is felt sharp once recognized. In the latter "a sense of *opposition*" is involved.

We now come to this: What is the central idea in the differentiation of Index from Icon? No doubt, it is the high degree of generality of the method of *prescision*, not the naive or intuitive way of classifying signs into two kinds. Although I did use the weathercock as a familiar example, it is not that we first identify the weathercock as a fine example of an index and then seek for explanations and excuses for that identification. The kernel of the idea Peirce presents in §14 of the *New List* is to check if the represented quality is *prescindible* from the *relation* in which it stands to its object, or to its 'correlate.' If yes, then it is an Icon. If no, it is not an Icon, but an Index, so far (we shall consider Symbol in the next section). It is this *prescision relation* that constitutes the proper distinction between Icon and Index.

But once this is observed, the account should come natural to readers of Peirce as well. It is for the same reason that a portrait is mainly an Icon while a photo-

graph is mainly an Index. Note that a poorly focused photograph may resemble a person less than a well painted portrait, but the *degree* of such resemblance is inessential to the theoretical differentiation of the two kinds of signs. We cannot base the proper definitions of Icon and Index upon how much you or I feel that a sign resembles its object. It is the *prescission relation* that *defines* the distinction between Icon and Index.

### 3 The Derivation of Symbol

#### 3.1 Peirce's Text

The second step differentiates Symbol from the two representations already obtained, namely Icon and Index, which Peirce does in fewer than 90 words. The following is his entire argument (W 2: 55.35-56.12, CP 1.558):

A reference to a ground [quality] may also be such that it cannot be prescinded from a reference to an interpretant [representation]. In this case it may be termed an *imputed* quality. If the reference of a relate to its ground [quality] can be prescinded from reference to an interpretant [representation], its relation to its correlate is a mere concurrence or community in the possession of a quality, and therefore the reference to a correlate [relation] can be prescinded from reference to an interpretant [representation]. It follows that there are three kinds of representations.

1st. Those whose relation to their objects is a mere community in some quality, and these representations may be termed *Likenesses* [Icons].

2d. Those whose relation to their objects consists in a correspondence in fact, and these may be termed *Indices* or *Signs*.

3d. Those the ground of whose relation to their objects is an imputed character, which are the *general signs*, and these may be termed *Symbols*.

#### 3.2 Commentary

As we are engaging on our main consideration of Symbol, I will divide the explanation into three stages: **3.2.1** will present some **Textual Exegesis**; **3.2.2** offers an **Intuitive Illustration**; and **3.2.3** finally introduces the **Definition** of Symbol in the *New List*.

##### 3.2.1 Textual Exegesis

First, as before, we remind ourselves that a quality, the more mediate, is in principle prescindible from representation, the more immediate, since the shallower in the list is always prescindible from the deeper in the list. This does not work in the other way round because if we try to lift up the deeper structure, we will have to necessarily bring the superstructure together with it. Although the superstructure is generally prescindible from the deeper structures, Peirce considers, once more, in the first sentence quoted above: What if a quality cannot be prescinded from representation? That is, what if a quality, which is at the very surface in the hierarchy of the derived categories, is for some reason, so tightly connected to the deeper layer of representation, such that the quality cannot be prescinded from representation? Thus there are two cases to consider again.

The third sentence of Peirce in 3.1 considers the case in which a quality *can* be prescinded from representation. In this case Peirce quickly observes that if a quality survives precision from an interpretation, this means that the quality is unaffected by the specific interpretation of the relation between the relate and correlate. Then its nature is not affected by the specific relation between the relate and correlate, from which it follows that the quality is internal to the relate. This is why Peirce almost repeats above, “its relation to its correlate is a mere concurrence or community in the possession of a quality,’ which is nothing but the explanation of Icon he stated earlier (see 2.1 and 2.2.6). In other words, the *first case* reduces to Icon. Therefore, such representation of a quality in a propositional structure will *not* give rise to a different kind of sign. Hence Peirce is done with the case where the quality is prescindible from representation.

The new case, therefore, is when a represented quality *cannot* be prescinded from representation. Note that such a sign has to be at least an Index since *representation* is not prescindible from *relation*, and that this is the *only possible new case*, since representation is already the deepest determination that *directly unites* substance. That is, nothing lies beneath representation, except for the substance itself to be united. Thus Peirce thinks that he only needs to label anew the last kind of representation. To repeat, this is the case in which a represented quality cannot be prescinded from reference to an interpretant, or in short from ‘representation.’ Hence Peirce concludes (W 2: 56.4-12, CP 1.558):

It follows that there are three kinds of representations.

1st. Those whose relation to their objects is a mere community in some quality, and these representations may be termed *Likenesses* [Icons].

2d. Those whose relation to their objects consists in a correspondence in fact, and these may be termed *Indices* or *Signs*.

3d. Those the ground of whose relation to their objects is an imputed character, which are the same as *general signs*, and these may be termed *Symbols*.

We have no space to define the term ‘ground’ in this paper, but it will suffice to put it this way: The “ground” in the “3d” case above connotes the abstracted content of the quality represented in the propositional structure. Note that Peirce is trying to characterize the *relation* of such a ‘ground’ to *their object* in the condensed phrase “the ground of whose relation to their objects,” whence he says that the ground is an ‘imputed character.’ Since the term ‘character’ in Peirce’s writings can be taken to mean the ‘quality’ of a sign, an “imputed character” can be also phrased ‘imputed quality.’ I will give below a more intuitive account of what is going on.

So here is a quick summary. Index was derived from Icon in the first step considered in section 2. The current section turned to the derivation of Symbol from Icon. Figure 3 below presents four diagrams that show how the precision relation differentiates Index from Icon, and Symbol from Icon and Index. The *heavy lines* indicate that the bonds between the represented quality and the more immediate categories are *tight* and hence *not* prescindible. The diagram third from the left corresponds to the case in which the quality *can* be prescinded from representation. That is, the representation reduces to Icon, as we saw in the second paragraph of the current section.

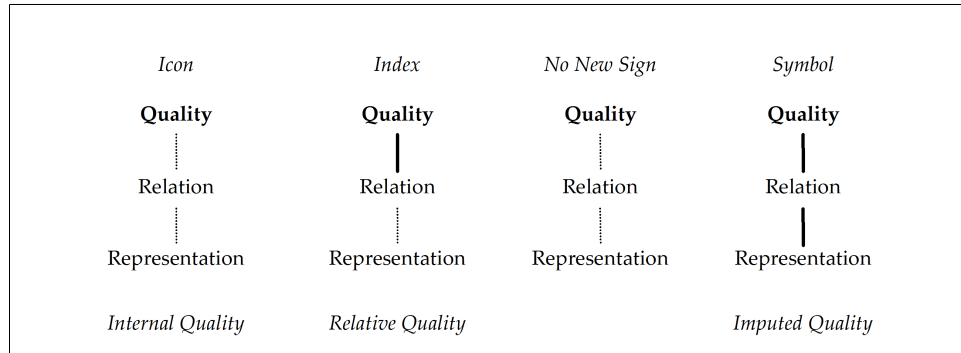


Figure 3. The derivations and the precision relation. The heavy lines signify that the Quality cannot be prescind from Relation or from Representation.

It is worth remarking that Peirce did *not* decide in advance that there should be three kinds of signs with regard to their relations to their objects. The precision relation first distinguished Index from Icon, and then Symbol from Icon. To put it another way, the analysis of the *New List* forces that there are three kinds of representations, and no more than three. Note also, that it is *only* in the *New List* that Peirce rigorously demonstrates *why* there are *exactly* three kinds of representations or signs in relation to their objects. In his later writings, he discusses examples, gives formulations of the three signs, but no such rigorous demonstration is found.

3.2.2 Intuitive Illustration

If a sign is a Symbol, Peirce thinks that the qualitative respect in which it is related to its object is an ‘imputed character.’ What does this mean? The quickest way to grasp what Peirce is saying is to combine what we have observed up to this point. Figure 4 below collects our knowledge together.<sup>9</sup>

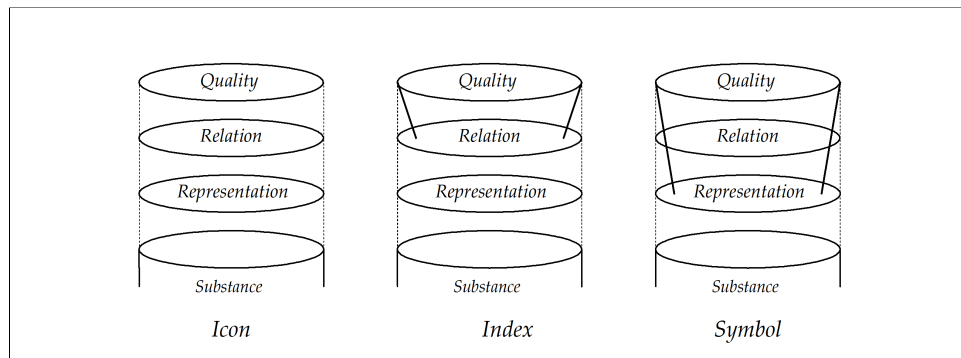


Figure 4. Icon, Index, and Symbol in the *New List*. The dotted lines on the sides signify that they all directly unite substance, while differing from each other in terms of the precision relation.

An Icon, as illustrated on the left, can be seen as a representation that refers its object to our mind without directly touching the layer of Relation beneath. This

<sup>9</sup> Since BEING plays no role in subsequent considerations, I will omit it from Figure 4 and Figure 5 below.

indirectness or detachedness is visualized by the vertical dotted lines on the sides. Figuratively speaking, therefore, an Icon only mirrors something below without actually reaching it. This is why Peirce for instance stresses that an Icon “really stands unconnected with them [objects]” (EP 2: 9, c.1894). If, however, a quality is *not* prescindible from relation, the quality of the sign, being a ‘relative quality,’ strikes its root much deeper into the structure such that it comes into direct contact with the correlates on the level of *Relation*. As the second diagram illustrates, in this case the quality drops off much deeper into the middle layer, stretching toward the more immediate, although it does not deepen further. This is the Index. Further, if a quality is not prescindible from reference to an interpretant, or ‘representation’ in short, it descends even deeper toward the most immediate or external layer of substance as illustrated on the right. In this specific sense, the Symbol expresses the deepest or the most far-reaching kind of qualities of the three signs.

Now recall the following three things in the *New List*.

1. A **Quality** is a determination of substance (see 2.2.2).
2. **Correlates** are phases of objects (see 2.2.3).
3. **Relation** is defined as ‘reference to a correlate’ (see 2.2.5).

Based upon this, we can modify the model of Symbol in Figure 4 above into a model like the one in Figure 5, by replacing the thin middle layer of *Relation* by phases of correlates, which constitute the *object* of the sign, or Symbol in this case.

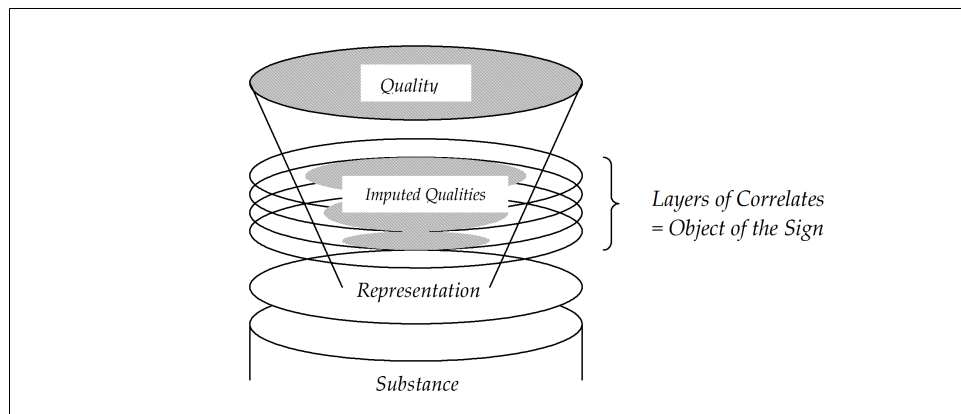


Figure 5. Intuitive illustration of Symbol in the *New List*.

As illustrated, the quality, whose abstracted content is the ground, does not merely reach the correlates beneath it but permeates them, as it were. This is why Peirce says that the quality, when seen in abstraction, is an ‘imputed character.’ Metaphorically speaking, the quality in the propositional structure drains down toward the layer of *Representation* by which it ‘imputes’ its own nuance to the correlates, namely to its ‘object.’ In this regard we may say that a Symbol bottoms far deeper than Icons and Indices, so as to influence our world view by imputing its own character to the very root of experience.

To avoid confusion, however, it is to be remembered that Icons and Indices do respond to the deepest layer as well, since they are forms of *Representations*. Icons and indices, therefore, do *not* fall short of directly uniting the manifold of sub-



stance.<sup>10</sup> They work in their own ways. But what we should underscore in the current section is the *unique locus* that Symbol occupies in Peirce's theory of representations. Symbol is the deepest or the most far-reaching of all three signs, and in turn Representation is the deepest or the most external of the three derived categories. We may thus say that it is precisely this *unique locus* that defines the unique nature of Symbol in Peirce's theory of signs.

### 3.2.3 Definition of Symbol

From these considerations, we may give the definition of Symbol in the *New List* as follows. It is, of course, merely a rephrasing of the "3d" kind of representation we saw above.

#### **Definition**

A Symbol is a sign whose quality is imputed to its object.

Of course we could always say that a Symbol is a sign whose quality cannot be prescinded from reference to a correlate and from reference to an interpretant. That is the most rigorous definition. But its meaning is not intuitively graspable if put that way, which is why I have attempted to spell out the idea, and suggest the definition above. Note that in a letter to Lady Welby drafted in December 1908, Peirce still mentions the idea of imputation in reference to the *New List* (EP 2: 481-482, CP 8.342, 1908).

It is, on the other hand, natural to wonder if such a concise definition of Symbol in the *New List* is consistent with the other things Peirce says about Symbol in his writings. As far as I see, the answer is, Yes. In the rest of this paper, therefore, I will briefly go over five sets of Peirce's well-known passages on Symbol as case studies. Needless to say, the passages are extremely selective and allow for varying interpretations. But they will mostly confirm the consistency of the definition above.

## 4 Case Studies

### 4.1 Peirce's Text 1866

#### **(i) Lowell Lectures on the Logic of Science (W 1: 468)**

The third and last kind of representations are *symbols* or general representations. They connote attributes [qualities] and so connote them as to determine what they denote. To this class, belong all *words* and all *conceptions*. Most combinations of words are also symbols. A proposition, an argument, even a whole book may be, and should be, a single symbol.

#### **(ii) Lowell Lectures on the Logic of Science (W 1: 475)**

A symbol is a general representation like a word or conception. [...] A symbol is a representation whose essential Quality and Relation are both unprecindible — the Quality of being Imputed and the Relation ideal.

**Commentary:** The peculiarity of the first quotation consists in the *determination* of denoted objects by "attributes" or qualities that the Symbols connote. For re-

---

<sup>10</sup> See the last paragraph of 2.2.5.

call that in Peirce's formulation of the sign relation, it is *always* the *object* that *determines* the sign, which in turn determines the interpretant, such that the *object* mediately *determines* the interpretant. For the sake of simplicity, take the phrase "what they denote" to mean 'objects.' Then Peirce is saying here that the Symbols connote attributes by which they determine their objects. This is because Symbols *impute* their attributes to their objects. The second passage, on the other hand, defines Symbol in the same way as in the *New List*. I will not discuss the phrase 'the Relation [is] ideal' here — Peirce roughly means that the determining relation is degenerate.

#### 4.2 Peirce's Text 1895

##### **Short Logic** (EP 2: 17, CP 2.295)

A *symbol* is a sign naturally fit to *declare* that the set of objects, which is denoted by whatever set of indices may be in certain ways attached to it, is represented by an icon [representation of a quality] associated with it.

**Commentary:** The italics on 'declare' are mine. A symbol *declares* what quality or icon *should* represent the set of objects of the Symbol. This is done *without* regard to indices attached to it, since whatever the objects are, Symbols are able to impute qualities to them. If I declare that X, whose quality is Q, is a symbolic representation of an object Y, I can always *impute* that quality Q to the represented object Y.<sup>11</sup> Hence Peirce says elsewhere that a symbol "is a law [artificial or otherwise] *governing* its Object" (EP 2: 276, 1903, my italics).

#### 4.3 Peirce's Text 1902

##### **(i) Minute Logic** (CP 2.92)

A Genuine Sign is a Transuational Sign, or *Symbol*, which is a sign which owes its significant virtue to a character [quality] which can only be realized by the aid of its Interpretant. Any utterance of speech is an example. If the sounds were originally in part iconic, in part indexical, those characters have long since lost their importance. The words only stand for the objects they do, and signify the qualities they do, because they will determine, in the mind of the auditor, corresponding signs.

##### **(ii) Dictionary of Philosophy & Psychology** (CP 2.304)

A *symbol* is a sign which would lose the character [quality] which renders it a sign if there were no interpretant. Such is any utterance of speech which signifies what it does only by virtue of its being understood to have that signification.

**Commentary:** A symbol, by definition, can neither be prescinded from Relation nor from Representation (recall Figure 3 in 3.2.1). By Representation is meant 'reference to an interpretant.' Peirce says in the second passage that a symbol would lose its quality 'if there were no interpretant.' Evidently, this is just what the definition of Symbol requires, for without the interpretant the symbol would not impute its quality to objects (note the 'were' in subjunctive mood). In the first passage, on the other hand, Peirce says that words 'signify the qualities they

<sup>11</sup> Compare this with the "conventional imputation" Peirce talks about back in the 1860's (EP 1: 51, CP 5.309, 1868).

do,' because they will 'determine' the corresponding signs, which are of course interpretants. Determination thus means *imputation* here.

#### 4.4 Peirce's Text 1903 - c.1904

##### (i) Sundry Logical Conceptions (EP 2: 274, CP 2.292, 1903)

A *Symbol* is a Representamen whose Representative character consists precisely in its being a rule that will determine its Interpretant.

##### (ii) New Elements (EP 2: 307, c.1904)

A symbol is defined as a sign which is fit to serve as such simply because it will be so interpreted.

[...]

A symbol is a sign fit to be used as such because it determines the interpretant sign.

**Commentary:** For our purpose, it suffices to observe that the passages are consistent with the general definition of Symbol. However, it might now occur to the reader, after seeing similar remarks, why a Symbol is said by Peirce to *determine* its interpretant. For once again, Peirce's definition of sign *always* has it that the *object* mediately *determines* its interpretant. Are not the explanations of Symbol in these texts in conflict with his basic definition of sign? My reply is, No. There is a step of reasoning unexpressed by Peirce, and moreover, it is at this point that our definition in 3.2.3 starts to speak more. For consider this: If a Symbol imputes its own quality to its object, and hence behaves as 'a law governing its Object' (see 4.2), it follows that the determination of the interpretant by the object is now part of a larger cycle of determination. That is, the semiosis,

Object → Symbol → Interpretant,

is now understood as

Symbol ⇒ Object → Symbol → Interpretant,

where → designates the usual determining relation, while ⇒ designates *imputation* (do not take the arrows to simply mean temporal succession). Since the first chain is a *subchain* of the second, Peirce's explanations are consistent. Note that without the notion of *imputation* it is hard to explain why Peirce thinks that *both* the object determines the interpretant *and* the Symbol (also) determines the interpretant. Observe, too, that a symbolic semiosis, the second chain, appears to have a self-feedback structure, and that it nevertheless requires an object — its instantiation, if you please — in order to realize its effect. As Peirce specialists would recognize, this is what Peirce holds about the operation of 'laws.'

#### 4.5 Peirce's Text c.1911

##### A Sketch of Logical Critics (EP 2: 460-461)

But, I had observed that the most frequently useful division of signs is by trichotomy into firstly Likenesses, or, as I prefer to say, *Icons*, which serve to represent their objects only in so far as they resemble them in themselves; secondly, *Indices*, which represent their objects independently of any resemblance to them, only by virtue of real connections with them, and thirdly *Symbols*, which represent their objects, independently alike of any resemblance or any real con-

nection, because dispositions or factitious habits of their interpreters insure their being so understood.

**Commentary:** In the *New List* Peirce uses 'Likeness' for Icon, but note that he still mentions 'Likeness' around 1911. The descriptions of Icon and Index are standard. Symbol is, however, explained 'independently' of 'any resemblance or any real connection' to its object, which sounds slightly different from what we saw in the differentiation of Symbol from Icon in section 3. It is, however, for this very reason that our definition of Symbol has explanatory value. Peirce is now emphasizing the law-like *imputing* behavior of Symbols, such that whatever imputes its quality to objects in law-like manner should be seen as a Symbol. That is, if events conform to the qualities of X by virtue of dispositions or habits in their interpreters, then X should be seen as a Symbol. This is of course why *natural laws* are regarded as Symbols by Peirce.

## 5 Conclusion

Throughout this paper I have maintained that the definition of Symbol given in section 3 claims fundamental significance in Peirce's semeiotics. This coheres well with Peirce's high evaluation of the *New List*. My point can also be further highlighted through a reflection upon the implication of the last few remarks in 4.5. As is well known, conventional signs, and hence most artificial signs including words, are Symbols in Peirce's semeiotics. But so are *natural laws*. What is the common property shared by words and natural laws? There is nothing conventional or artificial about natural laws, especially for a scientist like Peirce. It is in view of such extremely divergent classes of signs, identically regarded as Symbols by Peirce, that the significance of the definition of Symbol in the *New List* becomes more perceptible.

The various considerations in this paper lead us to make another suggestion, which is this: Peirce's semeiotics may give rise to one, unique definition of Symbol, despite the fact that Peirce offered numerous formulations. This is a *uniqueness thesis* about Symbol, namely, the thesis that there is but one and only one definition of Symbol for Peirce. A seemingly strong claim would make more sense if considered in the following way. Symbols as representations have to eventually find their place in Peirce's theory of categories, since there is no evidence that he ever abandoned them. Following Peirce's argument in the *New List*, I have characterized Symbol as the deepest form of Representation, or more correctly, the class of representations that reach out to the most external layers of cognition and impute their qualities to them. Thus if we wish to hold that there is more than one definition of Symbol, we would have to show that Symbol can have a more internal or external locus in Peirce's theory of representations, which seems very difficult. If so, however, the *uniqueness thesis* follows. That is, symbols as representations occupy a unique conceptual locus in Peirce's theory of categories, which in turn *uniquely* defines what Symbol is for Peirce.

Finally, it goes without saying that I have left aside many important aspects of Symbol in Peirce's semeiotics. I do not profess to have shown, for instance, how the arguments of §14 of the *New List* stand to the broader background of Peirce's philosophy. But I will look for other occasions to discuss such matters.

## References

- Buzzelli, D. E. (1972). "The Argument of Peirce's 'New List of Categories,'" *Transactions of the Charles S. Peirce Society* 8(2): 63-89.
- De Tienne, A. (1989). "Peirce's Early Method of Finding the Categories," *Transactions of the Charles S. Peirce Society* 25(4): 385-406.
- De Tienne, A. (1996). *L'Analytique de la Représentation chez Peirce: La Genèse de la Théorie des Catégories*. Bruxelles: Facultés Universitaires Saint-Louis.
- Esposito, J. L. (1979). "The Development of Peirce's Categories," *Transactions of the Charles S. Peirce Society* 15(1): 51-60.
- Fisch, Max H. (1986). *Peirce, Semeiotic, and Pragmatism: Essays by Max H. Fisch*. Ed. by Kenneth L. Ketner and Christian J. W. Kloesel. Bloomington: Indiana University Press.
- Kant, I. (1965) *Immanuel Kant's Critique of Pure Reason*. [Unabridged edition based upon the 1929 Macmillan edition.] Translated by Norman Kemp Smith. New York: ST Martin's Press.
- Michael, F. (1980). "The Deduction of Categories in Peirce's "New List"," *Transactions of the Charles S. Peirce Society* 16(3): 179-211.
- Murphey, Murray G. (1961). *The Development of Peirce's Philosophy*. Cambridge, MA: Harvard University Press. [Reprinted by Hackett Publishing Company, 1993.]
- Peirce, C. S. (1931-1958). *Collected Papers of Charles Sanders Peirce*. Vols. 1-8. Ed. by Charles Hartshorne and Paul Weiss (vols. 1-6), and by A. W. Burks (vols. 7-8). Cambridge, MA: Harvard University Press. [This edition is abbreviated as 'CP,' followed by volume number, a decimal point, and paragraph number.]
- Peirce, C. S. (1963). *The Charles S. Peirce Papers*. Harvard University Library Microreproduction Services. [This edition is referred to as 'MS,' or in the case of letters 'MS L,' followed by the Robin Catalogue number, a colon, and page number.]
- Peirce, C. S. (1982f.). *Writings of Charles S. Peirce: A Chronological Edition*. Ed. by Max H. Fisch, E. C. Moore, et al. Bloomington: Indiana University Press. [This edition is abbreviated as 'W,' followed by volume number, a colon, and page number. For the *New List* in this edition, I have included line numbers after a decimal point. ]
- Peirce, C. S. (1992, 1998). *The Essential Peirce: Selected Philosophical Writings*. Vols. 1-2. Ed. by Nathan Houser and Christian J. W. Kloesel (vol.1), and by the Peirce Edition Project (vol.2). Bloomington: Indiana University Press. [This edition is abbreviated as 'EP,' followed by volume number, a colon, and page number.]
- Robin, R. S. (1967). *Annotated Catalogue of the Papers of Charles S. Peirce*. Amherst: The University of Massachusetts Press.