

Peirce's Other Ten-Class Typology

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Abstract

In the manuscript of the 1903 *Syllabus* intended to accompany his Lowell lectures on logic, Peirce developed what is one of his best-known semiotic constructions, namely a ten-class, three-division typology of signs. The nine subdivisions in the typology define, amongst others, the icon-index-symbol division much used in visual semiotics and even in competing theories of the sign, and were based upon the three phenomenological categories as Peirce conceived them at the time. However, within five years he had developed a different ten-class typology left as a scrap of information in a post-scriptum to a draft letter intended for, but never sent to, Lady Welby. Now, this new typology was established following a period in which Peirce's thinking on signs had undergone considerable developments; it was underwritten by a different set of theoretical choices from which it was impossible to construct the earlier icon-index-symbol division. The paper seeks to tease out the differences between the two typologies, the interpretation of the latter presenting Peirce scholars with an interesting theoretical challenge. After summarising the 1903 system for purposes of comparison, the paper examines the theoretical developments leading to the 1908 post-scriptum typology, establishes the ten classes it yields and attempts to illustrate some of them. The two ten-class taxonomies show in a striking manner how significantly Peirce's criteria for the classification of signs developed in the five years between the *Syllabus* and the draft post-scriptum. It is to be hoped that this will contribute to our understanding of how Peirce came later to conceive the sign and the way it functions.

Keywords: phenomenology, category, pragmatism, universe, semiosis, intentionality, post-scriptum

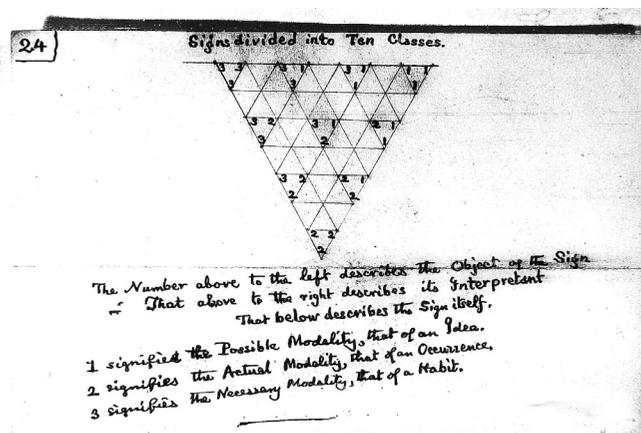
1. Introduction

We know from a page in the Logic Notebook, R339, dated 27 December 1908, and from various drafts intended for Lady Welby from 24-28 December, that Peirce didn't cease working on his ten-division typologies after the 23 December letter to his British correspondent. Now, at the end of the final draft of 28 December, he left a series of scraps, including an intriguing table of only three divisions of signs:

P.S. 1908 December 28. Well, dear Lady Welby, you deserve this infliction, for having spoken of my having "always been kindly [!!!] interested in the work to which my life is devoted", when I have myself have been entirely absorbed in the very same subject since 1863, without meeting, before I made you acquaintance, a single mind to whom it did not seem very like bosh. I add some scraps. (RL463: 143, 1908)

The four scraps set out on the following page of the manuscript were separated by short horizontal lines. The scraps themselves included a desire to read an encyclopaedia article that Lady Welby had written, a rather testy reference to British want of finesse occasioned by her misunderstanding of his term "attractive fancy", and a reference to a comical slip in her type-written letter concerning the term "corollarial". At the top of the page, however, Peirce had left a V-shaped diagram containing 10 classes of signs (Figure 1), without any explanation of its purpose, and with only a note below the diagram indicating as to how the table was to be read.

Figure 1. The post-scriptum diagram plus Peirce's notes, RL463: 144, 28 December, 1908



Owing, presumably, to the singular dearth of information provided by Peirce, the diagram seems not to have been much investigated, with the exception of Farias and Queiroz (e.g. 2003, 2004, 2014a, 2014b, 2017), authors of pioneering studies investigating the ways in which diagrams bring out the formal aspects of the relations between Peirce's various classifications, including the post-scriptum (i.e. Farias and Queiroz's "Welby") table. Indeed, diagramming Peirce's various typologies seems to be a predominantly Brazilian enterprise: see also Borges (2010, 2016); Romanini (2014); but see, also, Marty (2020) for a different approach. Most important for present purposes is one particular paper, Farias and Queiroz (2014a), which specifically investigates ways in which Peirce employs diagrammatic methods to model two very different ten-class systems of signs. Towards the conclusion to 2014a Farias and Queiroz note:

However, we must remember that, in the *Welby* diagram, what we are calling Object is described as "the mode of being of [the Sign's] Object" (and not the relationship of the Sign with its Object), and, similarly, that what we are calling Interpretant is described as "the mode of being of [the Sign's] Interpretant". The implication of this is that Peirce seems to be showing us here, with this diagram, is that the mode of being of the Sign's Object (immediate or dynamic) determines the mode of being of the Sign, which determines the mode of being of its Interpretant (immediate, dynamic or final). This is not the order of determination that generates the 10 classes of signs described in the *Syllabus*, but is also not in contradiction with it. This is the basic structure of the order of determination which gives rise to another classification, the 28 classes of signs. This is, in fact, the number of triangular cells with vertex down in the Welby diagram, although only ten of them are occupied by classes, expressed in Arabic numbers. (2014a, p. 668)

The authors make an important point here, namely, the placing of the correlates in the classes corresponds to the order described by Peirce for the twenty-eight classes mentioned in the letter to Lady Welby. What must be added is that the numerical values accorded the correlates as they are placed in each cell correspond to the order of determination in all Peirce's definitions of the sign. We return to this issue below.

It is notable that the classes on either table (Figures 1 and 2) are defined by three respects, with the bottom vertex in each case seemingly having classes with similar but not identical structure. However, the orders of grandeur of the classes with respect

to each other within the tables are inverted, the most complex, the Argument class, occupying top right in 1903 (Figure 2), whereas the most complex class, 333, the class of (collective) habit-producing types, occupies top left in Figure 1. One of the purposes of this article, then, is to offer possible reasons for this inversion, since such differences between the two systems show strikingly how Peirce's semiotics developed over the five years separating the *Syllabus* and post-scriptum sets of classes. Before returning to the differences between the two sets of classes, what follows summarily records some of the ways in which Peirce's thinking on signs developed between the years 1903 and 1908.

2. The System of 1903

This section summarises the materials to be found in the logic system Peirce developed in the *Speculative Grammar* composing the *Syllabus* (R478, R540; EP2: 267-299, 1903), in which, after outlining the principles of phenomenology and introducing the categories of Firstness, Secondness and Thirdness on which the system is based, Peirce offered the following definition of the sign:

A Sign, or *Representamen*, is a First which stands in such a genuine triadic relation to a Second, called its Object, as to be capable of determining a Third, called its *Interpretant*, to assume the same triadic relation to its Object in which it stands itself to the same Object. The triadic relation is *genuine*, that is its three members are bound together by it in a way that does not consist in any complexus of dyadic relations.... A Sign is a Representamen with a mental Interpretant. Possibly there may be Representamens that are not Signs. (EP2: 272-273)

With its reference to "First", "Second" and "Third", the definition integrates the theory of triadic relations he was to define explicitly in the second part of the *Syllabus*, manuscript R540, which was also based upon the phenomenology (EP2: 289, 1903). When we examine the disposition of the classes of signs as schematized by Peirce on Figure 2, it is striking from a theoretical point of view that two of the three respects by means of which he classifies signs (Table 1) are not directly related to the correlates informing the definition given above—they are relational: the second respect is formed from the relation between the sign and what was identified in later taxonomies

as the dynamic object, and the third from the relation between the sign and what was later identified as the final interpretant. Since neither the dynamic object nor the final interpretant is directly involved in the establishment of the ten classes of signs, none of the ten classes can identify the origin of the sign—the process that triggers it—or the reaction it might produce.

Now, although object and interpretant are by definition indispensable participants in every act of representation, they are not in themselves the concern of Speculative Grammar as they only occur or appear in some actual act of representation, which means that they cannot be classified in advance. This is especially understandable in the case of the interpretant, the effect that the sign has on an interpreter, as the reaction in an interpreter that a sign produces, even if deliberately “targeted”, obviously cannot be determined with certainty before it has been produced. Thus, Speculative Grammar as described in the *Syllabus* is restricted to the conditions which determine whether some entity qualifies as a sign or not, together with its mode of representation and with its informational value. In 1867, in his paper “On a New List of Categories”, Peirce had initially worked with a single division, the one we would now recognise as the Sign-Object relation, in which the symbol constituted a complex subdivision itself composed of term, proposition and argument (EP1: 6-9). In 1903, on the other hand, after having outlined his phenomenology and given the definition of the sign quoted above in manuscript, Peirce proceeded to introduce two divisions, the original Sign-Object division plus a now autonomous Sign-Interpretant division composed of sumisigns (rhemes), dicisigns—a class far broader than the proposition—and arguments (EP2: 272-277, 1903). The Sign subdivisions were added in R540, making it possible for Peirce to establish his ten classes (EP2: 291, 1903).

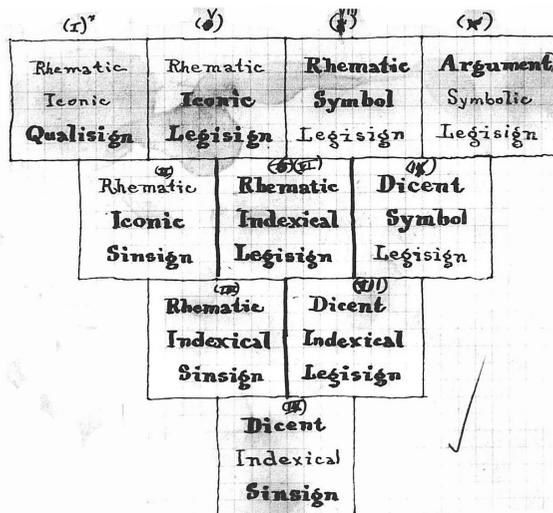
Table 1. The three trichotomies of 1903

	Category		
	Firstness	Secondness	Thirdness
Respect			
Sign	qualisign	sinsign	legisign
Sign-Object	icon	index	symbol
Sign-Interpretant	rheme	dicisign	argument

The foregoing information can conveniently be summarized on Table 1, on which the three divisions are realized as the sign plus the two relational trichotomies mentioned earlier, respectively the sign's mode of representation and its informative capacity, while the phenomenological status of the various subdivisions is determined by one or other of the three categories. These, when a division's various subdivisions are correctly combined with subdivisions from the following divisions yield the ten classes which Peirce schematized on Figure 2, although he never explained how he obtained them, stating simply:

The affinities of the ten classes are exhibited by arranging their designations in the triangular table here shown, which has heavy boundaries between adjacent squares that are appropriated to classes alike in only one respect. All other adjacent squares pertain to classes alike in two respects. Squares not adjacent pertain to classes alike in one respect only, except that each of the three squares of the vertices of the triangle pertains to a class differing in all three respects from the classes to which the squares along the opposite side of the triangle are appropriated. The lightly printed designations are superfluous. (EP2: 296, 1903)

Figure 2. Peirce's table of the ten classes of signs from R540: 16, 1903



Nevertheless, there is an indication of how these belong to a categorial hierarchy described in Peirce's discussion of the principle of mental abstraction called precision

in the *Syllabus*: “It is possible to prescind Firstness from Secondness But it is impossible to prescind Secondness from Firstness So likewise it is possible to prescind Secondness from Thirdness. But Thirdness without Secondness would be absurd” (EP2: 270, 1903). This means that Secondness being more complex than Firstness and Thirdness more complex than both since it is impossible to prescind Secondness from Firstness, and by implication Thirdness from either, there is a hierarchy determining the relative status of the categories such that a less complex subdivision earlier on the table cannot combine with any subsequent subdivision of greater complexity. This means that a sign of Secondness status cannot combine with a member of the Sign-Object division of Thirdness status—for example, a sinsign cannot combine with a symbol, being restricted phenomenologically to combination with either an index or an icon. By combining subdivisions in this way Peirce obtained ten classes of signs, which he numbered in order of increasing phenomenological and semiotic complexity (EP2: 294-296, 1903), given on Table 2, with an example of each borrowed from Jappy (2020, p. 25).

Table 2. The ten classes of signs from 1903

1. Qualisign	the black colour of mourning in the west
2. Iconic sinsign	any figurative painting or sketch
3. Rhematic indexical sinsign	the cry <i>Ouch!</i>
4. Dicent sinsign	the sudden change of direction of a windsock
5. Iconic legisign	the iconicity of the ‘thumbs-up’ sign
6. Rhematic indexical legisign	the demonstrative adverb <i>Yonder!</i>
7. Dicent indexical legisign	the <i>Chemist</i> sign or a green Greek cross or a caduceus above a high-street shop
8. Rhematic symbol	common nouns such as <i>liberty, equality, fraternity, cat</i>
9. Dicent symbol	the utterance <i>Yonder lies Dover!</i>
10. Argument	typically, any syllogism

3. How the Semiotics Developed

3.1 Pragmaticism and the graphs

The evolution from the *Syllabus* of 1903 to ten-class typology of 1908 is characterized by changes of viewpoint and approaches to the problem of the sign, the way it functions and the changing theoretical background adopted by Peirce, and can only be dealt with summarily in this paper (see Jappy 2016 for a more exhaustive

presentation). This evolution is presented in a number of stages, these being dealt with thematically for convenience, and they take us to a point where it is possible to explicate the derivation of the second ten-class system.

3.1.1 *The sign as medium*

The years 1905-1906 constituted a period during which Peirce also undertook a thorough revision of his logic, producing a number of ten-division typologies in his Logic Notebook (R339) between October 10, 1905 and August 31, 1906. This, too, was the period in which he began to see more clearly how the sign, which had always mediated between object and interpretant in the definitions, could now be clearly shown to *function* as a medium. In the period 1905-1906, too, no doubt partly as a consequence of the expanded set of six correlates—two objects, the sign and three interpretants presented initially in a letter to Lady Welby dated 12 October 1904—he considerably modified the function of the sign, and, by virtue of integrating the two objects and the three interpretants in his conception of the action of the sign, explicitly attributed to the sign itself a more precisely defined mediating role, as we see in the following extract from RL463, a draft letter to Lady Welby dated 9 March 1906:

I use the word “*Sign*” in the widest sense for any medium for the communication or extension of a Form (or feature). Being medium, it is determined by something, called its Object, and determines something, called its Interpretant [. . .] In order that a Form may be extended or communicated, it is necessary that it should have been really embodied in a Subject independently of the communication; and it is necessary that there should be another subject in which the same form is embodied only as a consequence of the communication. (EP2: 477, 1906)

From this it follows that by defining the sign as a medium Peirce was also beginning to attribute far more specific roles to both the dynamic and the immediate objects, the medium becoming a sign as soon as it is “informed” by the immediate object, itself a determination of the dynamic. This is because the determining influence of the object now explicitly involves the communication of “form” via the immediate object to whatever medium is involved in the action of the sign—blackboard, airwaves, written page, computer screen, etc.—which then communicates a version of this form to the series of interpretants.

3.1.2 *Quasi-minds and the object*

A further indication of Peirce's changing conception not only of the sign but of the process in which it is produced can be seen in his introduction in the period 1905-1906 of the concept of the quasi-mind. As can be seen from this extract from manuscript R283, a version of the "Basis of Pragmaticism", Peirce is moving towards the introduction of intentionality in the signifying process:

A sign, on the other hand [as opposed to a vehicle, TJ], just in so far as it fulfills the function of a sign, and none other, perfectly conforms to the definition of a medium of communication. It is determined by the object, but in no other respect than goes to enable it to act upon the interpreting quasi-mind; and the more perfectly it fulfills its function as a sign, the less effect it has upon that quasi-mind other than that of determining it as if the object itself had acted upon it. Thus, after an ordinary conversation, a wonderfully perfect kind of sign functioning, one knows what information or suggestion has been conveyed, but will be utterly unable to say in what words it was conveyed, and often will think it was conveyed in words, when in fact it was only conveyed in tones or in facial expressions.

It seems best to regard a sign as a determination of a quasi-mind; for if we regard it as an outward object, and as addressing itself to a human mind, that mind must first apprehend it as an object in itself, and only after that consider it on its significance; and the like must happen if the sign addresses itself to any quasi-mind. It must begin by forming a determination of that quasi-mind, and nothing will be lost by regarding that determination as the sign. (LI: 280, 1905-1906)

Signs do not appear from nowhere, they are the determination of the dynamic object, but for a logician like Peirce, just how that dynamic object initiates a process of determination requires explanation. Although he cites ordinary conversation as an ideal example of communication, he eschews any form of appeal to the fallible human element in such communication, and adopts the far more abstract concept of two quasi-minds, between which, he suggests, the sign is the medium of communication. This irreversible introduction of a theoretical context for the exchange of representations by signs paves the way for the later concept of semiosis. Moreover, the two quasi-minds seem to parallel the use of the Graphist and Interpreter pair that Peirce introduces in the Graph conventions for "discussions" in the later Prolegomena article (L1: 326-329, 1906).¹

3.1.3 Renaming the most complex subclass of the icon

Now, in the course of his description of the icon in the *Syllabus* Peirce had made a very interesting distinction, confirming a statement made in a Harvard lecture on pragmatism presented earlier in the year: “Now the Icon may undoubtedly be divided according to the categories” (EP2: 163, 1903). In the *Syllabus*, Peirce was now suggesting that there were three ways in which entities might resemble other entities, in effect, three ways in which a sign might resemble its object, and in the same paragraph of R478 in which he had defined the icon, he derived these three ways by applying the analytical principle which had earlier yielded icon, index and symbol to the Firstness of the icon itself. In this way, he obtained three hypoicons, or subclasses of the icon.

Although it appears later in the manuscript, together with a number of “false starts” in Peirce’s attempts to introduce his Speculative Grammar, this is the first of at least four formulations of the icon’s subclasses:

Icons may be distinguished, though only roughly, into those which are icons in respect to the qualities of sense, being *images*, those which are icons in respect to the dyadic relations of their parts to one another, being *diagrams* or dyadic analogues, and those which are icons in respect to their intellectual characters, being *examples*. (R478: 209, 1903)

This was followed by what is now considered the standard definition of the explicitly termed “hypoicons”, singularized in the Collected Papers as the individual paragraph, CP: 2.277:

Hypoicons may roughly [be] divided according to the mode of Firstness 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*. (R478: 62; EP2: 274)

The subclasses of the icon turned out to be a relatively unstable concept,

however. The following extract is from the Logic Notebook, dated 12 October, 1905, written exactly a year after a letter to Lady Welby introducing an initial hexadic typology involving the sign and five relational divisions (SS: 32-35, 1904), and this is symptomatic, too, surely, of the way Peirce was working towards the published version of his pragmatism and the Graphs, namely the Prolegomena text of 1906. The *examples* and *metaphors* constituting the most complex subclasses of the icon in the two 1903 definitions of the hypoicons from the *Syllabus* have now been reformulated as *diagrams*, with the phenomenologically less complex earlier *diagrams* redefined as *analogues*, Peirce here reverting to two terms—“likeness”, “analogue”—introduced in the 1860s:

A sign may represent its dynamical object simply by virtue of its own abstract quality. It thus represents whatever else has that quality. Such a sign is termed an Icon. Icons either represent unanalyzed qualities, when they are simple *likenesses* or they have structures like the structure of the object, when, [...] they are *analogues*, or if made for the purpose are *diagrams*. (R339: 257r, 1905)

In the following extract from manuscript R284, another of the draft attempts at a “Basis of Pragmatism” from 1905, the earlier *diagram* in the *Syllabus* definitions is now simply described as bearing “brute Secundan relations of parts”, whereas the *diagram*, here again the most complex of the three subclasses, “partakes of a symbolic flavor”, echoing the way in which the *examples* of the earliest definition were referred to in 1903 as “those which are icons in respect to their intellectual characters”:

Icons are subdivided according to the nature of their significant likeness to their Objects which may be 1st in Priman characters or qualities of feeling; these alone have the iconic character in its purity; or 2nd in brute Secundan relations of parts; or 3rd in intellectual relations of parts. The last which are the most important may be called *Diagrams*. These partake of a symbolic flavor. (R284: 61v-63, 1905)

Such modifications indicate both the relinquishing of the strict phenomenological principles framing the earlier hypoicons and a shift towards a more “symbolistic” or “symbolcentric” conception of the diagrammatic system founding the Graphs, which we see quite clearly in manuscript R298 (“Phaneroscopy”) of 1906, where Peirce

writes:

But you have seen (or should you not be satisfied of it, the next following sections of this article shall make it clear to you), that Existential Graphs furnish a moving picture of the action of the mind in thought,—that is, to so much of that as is common to thoughts on all subjects. The study of that system, then, must reveal whatever common nature is necessarily shared by the significations of all thoughts. You “catch on”, I hope. I mean, you apprehend in what way the system of Existential Graphs is to furnish a test of the truth or falsity of Pragmaticism. Namely, *a sufficient study of the Graphs should show what nature is truly common to all significations of concepts.* (LI: 352, 1906, emphasis added)

Clearly, the diagram has now to be capable of revealing the commonality of the meanings of concepts, hence its “promotion” to the most complex of the subclasses of the icon, no longer referred to as the “hypoicons”. The exact redefinitions of the subclasses of the icon effected between the years 1903 and 1905 are displayed on Table 3:

Table 3. Four versions of the subclasses of the icon

	R478a 1903	R478b 1903	R339 1905	R284 1905
First Firstness/Priman	<i>image</i>	<i>image</i>	<i>likeness</i>	<i>quality of feeling</i>
Second Firstness/Secundan	<i>diagram</i>	<i>diagram</i>	<i>analogue</i>	<i>relation of parts</i>
Third Firstness/Tertian	<i>example</i>	<i>metaphor</i>	<i>diagram</i>	<i>diagram</i>

3.2 Semiosis

3.2.1 Semiosis defined

A further stage comes with the manuscript “Pragmatism” of 1907 (R318). In this multivariant text, Peirce explicitly defines “semiotic” in a novel manner and announces the need for future research into the identification in logic of what he saw as all possible varieties, not simply of signs, but of possible semiosis, thereby associating classes of signs with the various types of semiosis producing them (R318: 119, 1907). This new important stage in the development of Peirce’s conception of the action of the sign is also highly significant, since it is in this text that we find

the definition of semiosis.² Here Peirce defines the nature of the association of the three foundational constituents of semiosis (CP: 5.473, 1907), as being the dynamic “cooperation” of three “subjects”, a sign, its object and its interpretant:

It is important to understand what I mean by *semiosis*. All dynamical action, or action of brute force, physical or psychical, either takes place between two subjects [whether they react equally upon each other, or one is agent and the other patient, entirely or partially] or at any rate is a resultant of such actions between pairs. But by “semiosis” I mean, on the contrary, an action, or influence, which is, or involves, a coöperation of *three* subjects, such as a sign, its object, and its interpretant, this tri-relative influence not being in any way resolvable into actions between pairs. (CP: 5.484, 1907)

Consider, as an example of Peirce’s newly extended conception of the sign’s object, the following version of the recurrent “*Ground arms!*” example that Peirce was introducing at this time in this same manuscript R318:

Suppose, for example, an officer of a squad or company of infantry gives the word of command, “Ground arms!” This order is, of course, a sign. That thing which causes a sign as such is called the object (according to the usage of speech, the “real,” but more accurately, the *existent* object) represented by the sign: the sign is determined to some species of correspondence with that object. In the present case, the object the command represents is the will of the officer that the butts of the muskets be brought down to the ground... For the proper outcome of a sign, I propose the name, the interpretant of the sign. (CP: 5.473, 1907)

In the ten-class system of 1903 the dynamic object was, typically, the determinant of a photograph, namely the entity reflecting light back onto the film in the camera, an object, as seen in the discussion of informational signs, signs in no theoretically-defined way related to human intention or volition: “A better example [of a dicent, i.e. informational, index] is a photograph. The mere print does not, in itself, convey any information. But the fact, that it is virtually a section of rays projected from an object otherwise known, renders it a Dicisign” (EP2: 282, 1903). In the description of the military command quoted above, however, the object represented is explicitly identified as the “will of the officer”. This implies that intention and volition—sources

of motivation unavailable in the 1903 system, in spite of their being implied by the definition of the sign at the time—are now seen as potential determinants of signs and, consequently, as the origins of semiosis. In this context the following extract from manuscript R299, “Phanerescopy: Or, the natural history of concepts”, 1906, offers insights into what we are to understand by the officer’s “will”:

Experience is that state of cognition which the course of life, by some part there of, has forced upon the recognition of the experient, or person who undergoes the experience, under conditions due usually, in part, at least, to his own action; and the Immediate object of the cognition of Experience is understood to be what I call its “Dynamical”, that is, its real object... By a “cognitive” state, as opposed to a state markedly involving only elements of feeling and volition, I mean a state which, as it is in itself, and not as it may be represented reflectively, is a sign of an object for an interpretant state, which last may involve feeling, volition, or cognition, alone or in combination with either of the other of these elements of mental life. (LI: 344-345, 1906)

Now, strictly speaking, within Peirce’s definition of experience, the officer’s volition is the second, “dual”, member of the feeling-volition-cognition triad of experience, but since the vocal command is a specific instance or occurrence of a general type, and since it is uttered in a context seeking to inculcate uncontested habitual behaviour, we can consider it to be on a par with cognition and to be the vector of intentionality.

3.2.2 Semiosis described

Finally, in a letter to Lady Welby dated 23 December, 1908, he expanded the triadic “cooperation” of semiosis as defined in 1907 into one involving the sign and its five correlates in the following formulation of the dynamism in semiosis, which also appears to be the only mention of the 28-class, six-division typology in the Peirce canon:

It is evident that a possible can determine nothing but a Possible, it is equally so that a Necessitant can be determined by nothing but a Necessitant. Hence it follows from the Definition of a Sign that since the Dynamoid Object determines the Immediate Object, which determines the Sign itself, which determines the Destinate Interpretant,

which determines the Effective Interpretant,
 which determines the Explicit Interpretant,
 the six trichotomies, instead of determining 729 classes of signs, as they would if they
 were independent, only yield twenty-eight classes. (EP2: 481)

The determination process itself can be represented more simply by the scheme on Figure 3, in which the interpretants have been standardized respectively from destinate, effective and explicit to immediate, dynamic and final. Note that some authors, e.g. Savan (1988, p. 52), invert this order, identifying the explicit as the immediate, and the destinate as the final. Such an order, of course, would produce the illogical situation where the final interpretant determines not only its own *immediate* interpretability but also any and every actual effect the sign might produce. Figure 3 displays in simple form the hexadic structure of semiosis as Peirce conceived it in 1908, in which the arrow “→” indicates the process of determination of the successive “subjects” in the process, and in which the abbreviations Od, Oi, S, li, Id and If represent, respectively, the dynamic and immediate objects, the sign, followed by the immediate, dynamic and final interpretants. Note, however, that Peirce never developed the 28-class system, and that he never ever set out his numerous typologies in the horizontal format displayed on Figure 3 and Table 6 below.

Figure 3. Hexadic semiosis in 1908

Od → Oi → S → li → Id → If

3.3 Category or universe

What can be considered as another important aspect of the development of Peirce’s late conception of the sign and the action of the sign comes in 1908. True to his principle of supplying the background theoretical framework to his classifications as was the case with phenomenology in the *Syllabus* (EP2: 267-272) and the letter to Lady Welby of 12 October, 1904 (SS: 23-32), Peirce prefaces his description of semiosis and his analysis of the nature of the sign with an introduction to the new theoretical background that underwrites them by presenting his universes:

One of these Universes embraces whatever has its Being in itself alone, except that

whatever is in this Universe must be present to one consciousness, or be capable of being so present in its entire Being. It follows that a member of this universe need not be subject to any law, not even to the principle of contradiction. I denominate the objects of this Universe *Ideas*, or *Possibles*, although the latter designation does not imply capability of actualization. On the contrary as a general rule, if not a universal one, an Idea is incapable of perfect actualization on account of its essential vagueness if for no other reason.

Another Universe is that of, 1st, Objects whose Being consists in their Brute reactions, and of, 2nd, the Facts (reactions, events, qualities etc.) concerning those Objects, all of which facts, in the last analysis, consist in their reactions. I call the Objects, Things, or more unambiguously, *Existents*, and the facts about them I call Facts. Every member of this Universe is either a Single Object subject alike to the Principles of Contradiction and to that of Excluded Middle, or it is expressible by a proposition having such a singular subject.

The third Universe consists of the co-being of whatever is in its Nature *necessitant*, that is, is a Habit, a law, or something expressible in a universal proposition. Especially, *continua* are of this nature. I call objects of this universe *Necessitants*. It includes whatever we can know by logically valid reasoning. (SS: 81-82)

However, in an earlier text from this same year he offers a more precise description of what, for this paper, is the most important universe, namely the universe of necessitant entities, and describes three “universes of experience” that can host logical entities, namely, possible, existent and necessitant entities. In this text, “The Neglected Argument for the Reality of God”, (CP: 6.452-6.493; EP2: 434-450, 1908), Peirce offers the following brief but thought-provoking inventory of the sorts of entities that are members of the universe of necessitants:

The third Universe comprises everything whose Being consists in active power to establish connections between different objects, especially between objects in different Universes. Such is everything which is essentially a Sign,—not the mere body of the sign, which is not essentially such, but, so to speak, the Sign’s Soul, which has its Being in its power of serving as intermediary between its Object and a Mind. Such, too, is a living consciousness, and such the life, the power of growth of a plant. Such is a living institution,—a daily newspaper, a great fortune, a social “movement”. (EP2: 435, 1907)

Peirce is now replacing the phenomenological framework mentioned in the

Syllabus by what can broadly be referred to as an ontological one: a system of modally differentiated universes containing all, including possible and necessitant entities. Whereas the three-division ten-class typology displayed on Figure 2 used Peirce's three categories as the criteria in order to subdivide the sign and the two sign-correlate trichotomies, the later hexadic typology introduced in the 1908 letter, on the other hand, is now defined within a framework which employs three universes to establish the subdivisions of the six correlates of semiosis, specifically, a universe of possible, one of existent and one of necessitant entities in order of increasing complexity (EP2: 478-479). Most importantly for the present paper, these universes now provide Peirce with a range of possible dynamic objects that are logically inexhaustible. In this way, his late illustration of various types of dynamic objects extends considerably our conception of what sorts of entities a given sign might stand for. These, as we see below, when properly combined with the subjects of the typology, namely the six correlates of semiosis, generate twenty-eight classes of signs (Table 6).

Later that same year, in a letter to Lady Welby of 23 December, 1908, and in a manner that clearly parallels the presentation in the letter to Lady Welby of 1904 of his six divisions of signs within the framework of the phenomenology on which his conception of the sign was then based (CP: 8.327-8.333), Peirce prefaced a formulation of the stages of semiosis by a thorough description of the three modal universes by means of which he now established the subdivisions within each of his trichotomies:

It is clearly indispensable to start with an accurate and broad analysis of the nature of a Sign. 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 call its Interpretant, that the latter is thereby mediately determined by the former... I recognize three Universes, which are distinguished by three Modalities of Being. One of these Universes embraces whatever has its Being in itself alone... I denominate the objects of this Universe *Ideas*, or *Possibles*, although the latter designation does not imply capability of actualization... Another Universe is that of, 1st, Objects whose Being consists in their Brute reactions, and of, 2nd, the Facts.... I call the Objects, Things, or more unambiguously, *Existents*, and the facts about them I call Facts... The third Universe consists of the co-being of whatever is in its Nature *necessitant*, that is, is a Habit, a law, or something expressible in a universal proposition. Especially continua are of this nature. I call objects of this universe *Necessitants*. (SS: 80-82)

The purpose of the phenomenology in 1903 had been to establish clearly the formal elements making it possible to describe the sign as a phenomenon. This was how Peirce employed the three categories of Firstness, Secondness and Thirdness to establish the various subdivisions shown on Table 2, and although the sign was defined as being determined by its object to produce an interpretant, there was no dynamism inherent in the classes defined by the resultant three-division typology: there was no dynamism since the typology of 1903 provided no way of identifying the dynamic object that triggers the signifying process, for example. However, by 1908, with the definition of the sign as a medium and with Peirce's realization that semiosis was a dynamic process, the three universes supplied the system with "receptacles" of entities—possible, existent and necessitant entities—that could function as signs and interpretants, and, most importantly, as objects.

Thus, what must be borne in mind when discussing Peirce's classifications of signs, at least those of the 1908 period, is that the universes he employs in the subdivisions are logical concepts. Phaneroscopy, which Peirce was still working on concurrently with the classification of signs in 1908-1909, is independent of logic, but, if he was maintaining his classification of the sciences, logic was still in some way dependent upon phaneroscopy. There is, therefore, a potentially traceable filiation from the categories to the universes, but the relation is tenuous—a category is not a receptacle, it has no "members" that can trigger the action of the sign physically or otherwise. That these universes should have been derived from the categories, there is no doubt; but they are not the same and they are employed in a very different manner in very different communicative contexts.

A host of specialists continue to see these universes as categories, which is poor, very un-Peircean theorizing. His late semiotics has generated incomprehension and dismay among some, so perhaps these scholars think that Peirce was simply mistaken. But why not use Peirce's terminology, if only for the simple reason that there might in fact be an important distinction being made even if we can't immediately see it? Replacing Peirce's choice of words by one with which one is more familiar seems very lazy semiotics, and a rejection of his ethics of terminology, in which he advises researchers to make up a new term for a new concept, as here, where "universe" means something new. As he maintains in footnote 12 of *Prolegomena*, his universes have little to do with the more familiar universes of discourse:

I use the term *Universe* in a sense which excludes many of the so called “universes of discourse” of which Boole, De Morgan, and many subsequent logicians speak, but which, being perfectly definable, would in the present system be denoted by the aid of a graph. (LI: 320n, 1906)

Concluding this summary of the development of the later semiotics, we see that by defining these modal universes and the sorts of entities they can contain, including signs, objects and interpretants, Peirce had changed significantly the theoretical framework within which he approached the process and circumstances that condition the way signs function. Moreover, since the object is now explicitly defined to be the origin or initiator of semiosis, as in the case of the commanding officer’s “will” that the musket butts be brought to the ground, the object can clearly be a source of intentionality. In short, while the system of 1903, in which the identity of the object is irrelevant, is unable to accommodate intentionality, the hexadic system of 1908 can show it to be an initiator of semiosis.

4. Deriving the Post-Scriptum Diagram

Peirce’s preparatory work for the ten classes on the post-scriptum diagram (Figure 1) can be seen from a page in the Logic Notebook. Here he establishes three stages in the derivation of the ten classes of signs in which the effects are not relational as in 1903, but, instead, as in the hexadic system described in the letter of 23 December, the correlates themselves (Figure 4). The instructions that Peirce sets out for identifying the classes of signs are as follows:

Let the first of a triad of numbers be

1 for a Tone 2 for a Token 3 for a Type

Let the second of the triad show the Object of the Sign to be

1 an Idea 2 an Occurrence 3 a Habit

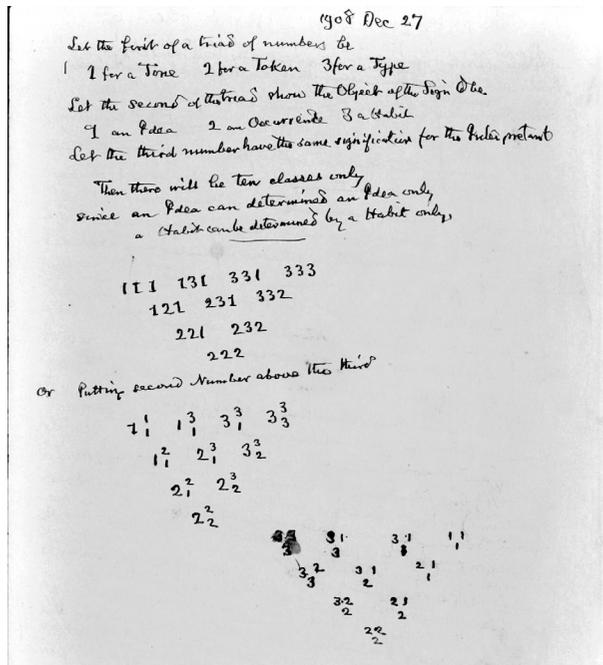
Let the third number have the same signification for the Interpretant

Then there will be ten classes only

since an Idea can determined [sic] an Idea only

a Habit can be determined by a Habit only

Figure 4. R339 339v, 27 December 1908



In the page on Figure 4 Peirce sets out the ten classes in a series of triangular tables, much like the post-scriptum version in the draft of the following day. The figures below are all extracted from the three schemata on Figure 4, and, to simplify, they all represent what, drawing on Table 6 below, would be identified as a collective gratific token (O3 S2 I1), namely the class at the centre of each triangular set, the case where the object is, according to Peirce's ordering instructions, a habit (3), while the sign is a token (2) and the interpretant an idea (1). As an aid to reading, in each case the representation given by Peirce for this class of signs is accompanied by the alphabetic key showing to which correlate each number corresponds: **S** for sign, **O** for object and **I** for interpretant.

In the first schema he places the items in the classes in linear "correlate" order (Figure 5). This is an order established initially in 1903 in his definition and descriptions of triadic relations (CP: 2.235-2.242), in which we find "A Representamen is the First Correlate of a triadic relation, the Second Correlate being termed its Object, and the possible Third Correlate being termed its Interpretant", hence the designation "correlate order". This is the order, too, of most of his ten-division typologies: they all begin with the sign division, followed by divisions

concerning the object, finishing with the divisions concerning the interpretant. In the case of Figure 5, this order is clearly problematic since the sign is followed by an object of higher order, a situation which runs counter to the rule stating that a habit (here the object) can only be determined by a habit, whereas, in fact, the sign is an occurrence. For this reason, the order is incorrect, and this is also the case with three further classes on the first schema on Figure 4 (131, 121, 232).

Figure 5. An initial attempt at schematizing the class of collective gratific tokens on Figure 4

2 3 1 S O I

In order to resolve this difficulty, his first solution is to place the second number directly above the third—thereby placing the object above the interpretant, in other words (Figure 6). This has the effect of removing any form of linearity in the schema, particularly as the sign is singled out by its prominence. However, Peirce must have found this scheme unsuitable, too, as it still did not respect the hierarchical constraint set out in the instructions, and it destroys the sense of determination which is integral to the structure of the classes of signs that he was trying to derive.

Figure 6. A second attempt at schematizing the class of collective gratific tokens on Figure 4

2 3 S O
 1 I

Finally, as the scheme on Figure 6 is still unable to accommodate the determination rules, he elects to place the more complex correlate in top left position (Figure 7).

Figure 7. The final schematization of the class of collective gratific tokens on Figure 4

3 1 O I
 2 S

This is the order characteristic of the ten classes of signs he was to add as a post-scriptum the following day as shown on Figure 1. The class of collective gratific tokens (O3 S2 I1) described on Figures 5 through 7 occupies central position in this schema, too. Moreover, the fact that the numbers are enclosed by a triangular scheme was no doubt Peirce's way of showing that he was describing classes of signs. Having described earlier the stages through which he evolved these ten classes, it now remains to explain just why he might have derived them. This will involve reviewing the significance of page 339v from the 27 December 1908 entry in the Logic Notebook. The system on this page shows Peirce returning to the "basic" structure of semiosis first described in 1907: "... by "semiosis" I mean, on the contrary, an action, or influence, which is, or involves, a coöperation of three subjects, such as a sign, its object, and its interpretant, this tri-relative influence not being in any way resolvable into actions between pairs" (CP: 5.484, 1907).

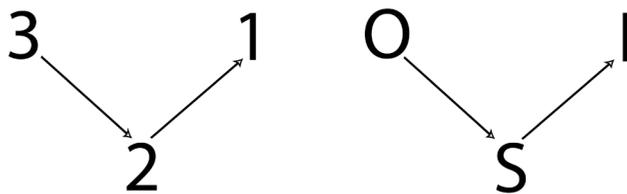
Here we note that semiosis is defined as "an action, or influence" involving three subjects, namely sign, object and interpretant. In the letter and drafts to Lady Welby late in December 1908 he describes the ten divisions, while between the 23 December letter and the subsequent drafts he seems to be experimenting in the Logic Notebook with the sorts of classes basic semiosis would produce—a strategy that he could have performed in 1903 since basic, three-correlate semiosis as defined in 1907 corresponds in all points to the three-correlate definitions of the sign, as in the letter to Lady Welby of 23 December 1908, too, a definition which, although framed five years later, corresponds broadly to those of the *Syllabus*. In both cases, the object determines the sign to provoke an effect or reaction:

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 call its Interpretant, that the latter is thereby mediately determined by the former. My insertion of "upon a person" is a sop to Cerberus, because I despair of making my own broader conception understood. I recognize three Universes, which are distinguished by three Modalities of Being. (SS: 80-81, 1908)

Taking the central class from Figure 1, once more, we see that this and all the other classes are abbreviated versions of Peirce's description of the hexadic signifying process in the 23 December letter given in the *Semiosis defined* section above.

Moreover, Figure 7 can be modified to include the determination process (Figure 8), since the 3 2 1 class used in the illustrations, like all the others on Figure 1, equates class of sign with semiosis. In the ten-class system of 1903 (Figure 2) the classes defined are only indirectly related to the second and third correlates involved in the definition of the sign, whereas in the post-scriptum system classes of signs are inseparable from classes of semiosis: in all cases, the leftmost element, the object, is always at least as complex as, or more complex than, the other two, while the sign is always as complex as, or more complex than, the interpretant. Such a hierarchical dependency corresponds to the structure of semiosis as displayed on Figure 3 and Tables 5 and 6 below. In conclusion, on the post-scriptum table and on Figure 8, class of sign and class of semiosis share the same modal structure, and to each class of signs there corresponds a unique class of semiosis.³

Figure 8. The class of collective grafic tokens as its corresponding class of semiosis



5. The Ten Classes of 1908

5.1 The 28-class typology

Although Peirce never described his hexadic system of 1908 in detail, it is possible, following the determination sequence from dynamic object to final interpretant given above (Figure 3), to set out the correlates as he might have done, down the page (Table 4). Although he only identified the first three divisions (EP2: 480), the final three are readily identified from the drafts (e.g. EP2: 488-490), although he now (five days after the letter to Lady Welby) had redefined the three subclasses of the sign division as potisign, actisign and famisign, as opposed to tone (mark), token and type.

Table 4. The hexadic typology of 1908 as Peirce might have set it out

		Universe		
		Possible	Existent	Necessitant
Subject	Od	abstractive	concretive	collective
	Oi	descriptive	designative	copulant
	S	mark	token	type
	Ii	hypothetical	categorical	relative
	Id	sympathetic	percussive	usual
	If	gratific	to produce action	to produce self-control

However, although such a horizontal display system was never used by Peirce, it is more convenient to set out the divisions across the page, since this makes the identification of the classes easier. Table 5 displays the possible combinations of divisions capable of yielding twenty-eight classes of signs in such a horizontal format. Since the position advanced in this paper is that the post-scriptum typology is based upon semiosis, the shaded portions of the table are intended to show which divisions of the hexadic system Peirce omitted—those corresponding to the immediate object, the immediate interpretant and the dynamic interpretant, leaving the original correlates used in the 1903 definitions of the sign, the dynamic object, the sign and the final interpretant.

Table 5. The table of the twenty-eight classes of signs showing their relation to semiosis

<i>(semiosis)</i>	Subject					
	Od →	Oi →	S →	Ii →	Id →	If
Universe						
Necessitant	collective	copulant	type	relative	usual	to produce self-control
Existent	concretive	designative	token	categorical	percussive	to produce action
Possible	abstractive	descriptive	mark	hypothetical	sympathetic	gratific

The wheel has come full circle. This is the situation described on Table 6, which shows, like the post-scriptum table, the sorts of classes Peirce might have derived in 1903 if he had used the three correlates of the definitions of the sign as divisions instead of the two relational divisions in conjunction with that of the sign. Clearly, as a consequence of the sort of evolution in his thinking about signs, of which some aspects were given in Section 3, his apparent rediscovery of the theoretical interest of

semiosis in 1907 was a determining factor.

Table 6. The typology of signs on Figure 1 represented in a readable horizontal format

<i>(semiosis)</i>	Subject				
	Od	→	S	→	If
Universe					
Necessitant	collective		type		to produce self-control
Existent	concretive		token		to produce action
Possible	abstractive		mark		gratific

Employing the terms that Peirce used in his descriptions of the ten-division typologies in the drafts of December 1908 (EP2: 488-490, December 25, 1908), we can identify the ten classes on Table 7 with the appropriate identifying labels attached and attempt to supply tentative examples of each. The subdivision values in parentheses are hierarchically implicit in the table but have been added for clarity, the sign in each class being identified as a nominal while the values of the other divisions are completed adjectivally.

Table 7. The ten 1908 post-scriptum classes of signs plus labels

1908	
333	(collective) self-control producing type
332	(collective) action-producing type
331	(collective) feeling-producing type
322	action-producing collective token
321	feeling-producing collective token
311	collective mark
222	action-producing concretive (token)
221	feeling-producing concretive (token)
211	concretive mark/tone
111	abstractive

Since Peirce left the typology as a scrap for Lady Welby to work out for herself, one can only hypothesize how he would have exemplified each of its classes. It could even be both a table of classes of signs and a table of classes of semioses. If the conclusions in Section 4 are correct, what has to be borne in mind is that since a class of sign corresponds to a unique class of semiosis, the ten classes on Figure 1 might all be processes of some sort rather than simply classes of signs. This means that much

of what follows is guesswork. Nevertheless, in either case, classification requires accounting for the ontological status of the object that triggers the sign—its Modality of Being—that of the sign itself, and that of the reactions it provokes. The selection below is offered as possible interpretations of the classes on the post-scriptum table, including a discussion of certain examples which, since the three “existent” classes (222, 221, 211) are existentially causal as opposed to purposive in origin, is limited to classes involving collective signs, by far the most complex and the most interesting. All cases involve the dynamic object, the sign and the final interpretant in that order, while the necessary, actual and possible modalities on Figure 1 have, for convenience, been standardized to necessitant, existent and possible, as in the Welby letter of 23 December.

5.2 A tentative exemplification

333 [necessitant object, sign and interpretant] Such cases would involve intentionality or physical laws or institutions, etc., examples being the Highway Code, a nation's constitution; and externally stimulated inferential processes determining a habit over time. Peirce seems already to have been thinking along these lines in the extract from the earlier Neglected Argument text quoted above: “Such, too, is a living consciousness, and such the life, the power of growth, of a plant. Such is a living institution,—a daily newspaper, a great fortune, a social ‘movement’”.

332 [necessitant object and sign and existent interpretant] With a necessitant and therefore unperceivable sign, this is a difficult class to illustrate: a cognitive “thought-sequence” followed by an action of some sort—a religious experience, perhaps, leading to prostration or prayer. Peirce's “social movement” might belong in this class.

If occurrences/instances were allowed in this class, some examples of what Bernays (1947) quaintly calls “the engineering of consent”, would qualify—a publicity campaign, for example, although a publicity campaign observed to result in the actual purchase of commodities would be classified under 322, a (collective) action-producing token, characterized by necessitant object and an existent sign and interpretant. Note that in such cases the hexadic system described briefly in Section 3 is better equipped to deal with the mediatization of an advertising campaign—the inscription in some form or other of the aims of the project in some medium for it to make a perceivable impact—since it specifies the determination of the sign

functioning as the medium by the form-communicating immediate object. In a given campaign, the necessitant object would be the detailed contract between client and publicist outlining objectives and methodology, the immediate object would be the complex necessitant form that the campaign is to take—the nature of its mediatization, a cowboy smoking the brand’s cigarette as he rides down a hill, for example—while the sign as medium is the support adopted: TV, social media, cinema, newspapers, magazines, etc. Occurrences of Peirce’s military command “Ground arms!” would belong in this class, too, since they provoke an action.

331 [necessitant object and sign and possible interpretant] This is a difficult class to illustrate, too: a cognitive sequence followed by a feeling—another religious experience, an epiphany? Or identarian nostalgia, perhaps, as in Browning’s “Home-Thoughts, from Abroad”. We tend to see nostalgia as the sign of sadness, but it can also be seen as the effect of some necessitant sign, making what is a sign in the early system an interpretant in the later. Whatever instigates the sentiment is presumably communicated to the sufferer via some cognitive medium. If this late ten-class system has any merit, it might be that it obliges us to revise our familiarities, to reconsider what we’ve always taken for granted and to examine things from a different angle.

322 [necessitant object, existent sign and interpretant] The institution bell signalling the end of classes resulting in children exiting a school. This is probably one of the broadest of the ten, and possibly easiest to identify, with the sign and interpretant being perceivable and therefore available for inspection. This is surely the case when, outside the semiotics laboratory, we see a sign followed by a reaction and speculate as to what intentionality gave rise to the whole process. Interpreting this sort of sign is one of the mainsprings of detective fiction.

321 [necessitant object, existent sign and possible interpretant] A performance of a piano sonata pleasing or displeasing an audience: the musical principles determining the melodic line and harmonies are necessitant—a musical composition—while the performance executing the musical notation is existent and any feeling of pleasure is classified as a possible effect (but if the performance provokes applause or boos it becomes an action-producing collective token 322). Cf. this example from Peirce: “Qualities of feeling may be meanings of signs. Thus, a piece of concerted music, since it mediates between the quality of the composer’s succession of musical emotions and another in the breast of the auditor, is a sign” (R318: 665-667).

311 [necessitant object, possible sign and interpretant] The characteristic *qualities*

of the institutionally imposed “blues and twos” signals warning drivers to give way to a police vehicle independently of any actual sounding of the signal; the alarming *quality* of a fire siren blast, again, independently of any actual sounding of the siren; onomatopoeia in a verse of lyric poetry. Note that actual two-tone soundings of the blues and twos scattering cars or a fire siren attracting fire-engines would be classified as 322.

222 [existent object, sign and interpretant] An unexpected noise at the door of a room startling the occupant into movement.

221 [existent object and sign, possible interpretant] A pleasing landscape or vista, Benjamin's “aura” of a mountain, perhaps.⁴

211 [existent object, possible sign and interpretant] The particular quality of an individual significant sight or sound capable of producing a feeling (possibly only participating in a more complex sign).

111 [possible object, sign and interpretant] Any non-intentional signifying quality of colour, sound, feeling ...

5.3 Discussion

At this stage it is tempting but probably perverse to see whether or not such a list of classes, assuming perhaps optimistically that they are what Peirce might have had in mind, corresponds to the *Syllabus* table on Figure 2 and the examples given earlier. However, it should not be forgotten that the post-scriptum table was composed after that intense period of 1905-1906 leading to Peirce's ten-division typologies of signs, a redefinition of the role of the sign as medium and the introduction of the concept of semiosis. Within the *Syllabus* typology, class 333 might tentatively be classified as an argument, but in fact it is a much broader class, hosting cognitive and ampliative inferential processes more complex than those of traditional logic, i.e. Peirce's “critic”, and in any case, the argument is a subdivision of a relational division and it is pointless to try to compare it with a correlate division. It is evident, too, from a non-tabulated list of classes in the 1907 manuscript “Pragmatism” (R318: 585-89), that Peirce was hesitating about the nature of the interpretant divisions. These are the signs he associated with the Sign-Final Interpretant division in ascending order of complexity: “a single word, or a sentence or [...] Gibbon's *Decline and Fall*” (R318: 587)—a lengthy chronicle has here replaced a form of inference.⁵

Classes 332 and 331 would have no equivalents in the *Syllabus* typology, either.

While, again, it might be tempting to consider the first two divisions as somehow related to symbolic legisigns, this would be to equate legisigns, signs which are laws, with signs which are determined by, say, an intentionality. Peirce's striking definition of a mind—"...a *mind* may, with advantage, be roughly defined as a *sign-creator in connection with a reaction-machine*" (R318: 425, 1907)—and his introduction of the quasi-mind suggest, surely, that although he rejected psychologism in logic, he was interested in the "mechanics" or operational context of communication between sign-users and the factors that stimulated it, details of which are unavailable in the *Syllabus* version. Remember, too, first, that there is no icon-index-symbol division in 1908 and, second, that the "values" of the final interpretant divisions in classes 332 and 331 bear no resemblance to the earlier dicisign and rheme, which are relational subdivisions in 1903.

This seems to be the general problem with any an attempt at a comparison: the status of the sign is the only division that might be comparable—it stands as a correlate division in both systems, and as such is a determination of the dynamic object and in either can be general, particular or possible. However, even this can be misleading as one system's sign can be the other system's interpretant, as the example of nostalgia suggests. Jappy (2020, pp. 106-107) offered the example of trees flagging under the action of the wind on cliffs near Brighton, England. For hikers out walking this visible bending-action would be the sign of the direction and strength of the prevailing winds or even a landmark—an index, therefore, in the typology of 1903. But for the trees, the entities enduring the strength and direction of the winds, the flagging is an interpretant: it is the continuing consequence of a general meteorological process—of a variety of semiosis, therefore. In the system outlined above, observed on a single occasion, this class would be 322, a particular occurrence of the class of collective habit-forming types,⁶ since the specificities of the prevailing winds are the form "communicated" to the trees from more general, regular and, therefore, necessitant, meteorological conditions. These conditions are the complex necessitant dynamic object, the winds themselves constitute the medium, and the flagging is the final effect, i.e. the interpretant, a condition appropriately referred to technically as their "habit" acquired over time. The difference between the hikers' appreciation of the bending trees and the trees' habit acquired over time is a difference between a class of signs as conceived in 1903 and a 1908 class consistent with the ongoing process of semiosis: as in the case of nostalgia, the flagging is a sign in the

first case and an interpretant in the second. And what of loneliness? This, too, is the sign of something, but can also be seen as an effect...

6. Conclusion

Whether the post-scriptum system is ever taken up and used or not, it is clearly based, as Farias and Queiroz (2014a) suggested, upon a cut-down version of the 28-class typology as described in 1908, and is, in essence, a taxonomic system the principles on which it was constructed being ultimately traceable to all Peirce's triadic definitions of the sign. The 1908 system displayed on Figure 1 is, in effect, an "entry-level" typology that potentially prepares us for the 28-class system,⁷ but is as yet unfamiliar and is not, therefore, an easy system to use—indeed, with its greater number of divisions the 28-class system makes the analysis of signs easier.

More positively, the post-scriptum differs from the better-known and immediately more useful ten-class typology of 1903 in two potentially interesting ways. First, as a classificatory system, it invites us to consider not only what caused the sign in the first place, but also to consider its outcome, which is what we do more or less unconsciously in our daily intercourse with signs. And in that it is of value—classifying signs according to the two relational divisions of 1903 is, at the moment at least, far more powerful and far more user-friendly, but nevertheless a more restricted research exercise, with no real relation to the way people engage with signs outside academia, unlike the 1908 semiosis-based typologies which have yet to be exploited. Second, the post-scriptum typology neutralises the distinction between the definition of the sign, the static class identified by the researcher and the actual process determining that class, a situation that stresses the processual nature of sign activity and offers semioticians new scope for their research.

Finally, it should be noted that since Peirce gave no instructions or idea of how it should function, any use of the post-scriptum taxonomy by a working semiotician must surely be counted as neo-Peircean.

Notes

- 1 An interesting illustration from the *Prolegomena* text can be found at the Houghton Peirce Archive at the following site: <https://library.harvard.edu/collections/charles-s-peirce-papers> (Retrieved December 2020)

- 2 Francesco Bellucci, in an exhaustive study of classical inference referencing Peirce, Marquand, Philodemus and the term “semiosis”, considers the latter “almost a hapax”, citing one earlier instance from 1894 in manuscript R411 (2016: 264).
- 3 Incidentally, this triangular format was the basis of the ‘determination flow’ used to illustrate the hypoicons in Jappy (2013). It was replaced by a horizontal schema that was better able to represent the bottleneck effect produced when an existent medium has to incompletely accommodate complex form from a necessitant object, i.e. when the object is more complex than the sign.
- 4 “We define the aura of [natural objects] as the unique phenomenon of a distance, however close it may be. If, while resting on a summer afternoon, you follow with your eyes a mountain range on the horizon or a branch which casts its shadow over you, you experience the aura of those mountains, of that branch.” (Benjamin, [1935] 1969, p. 5)
- 5 In an early text, *Decline and Fall* would have been classified as a symbol: “Thirdly, there are *symbols*, or general signs, which have become associated with their meanings by their usage. Such are most words, and phrases, and speeches, and books, and libraries” (EP2: 5, 1894). However, at this time, Peirce hadn’t converted the tripartite symbol into a separate sign-interpretant relational division.
- 6 Types are, mainly for reasons of ease of linear exposition and according to a longstanding tradition of logical analysis, instanced by Peirce by mainly verbocentric examples, but the subclass is much more general, as the biosemioticians know and as Peirce stated himself: see his definition of a mind given above.
- 7 The sixty-six class systems described from the Logic Notebook in the 1905-1906 period and the two from the drafts of December 1908 all begin with the sign division, and, since semiosis is initiated by the dynamic object, they cannot represent classes of semiosis or even constitute a form of semiosis.

References

- Bellucci, F. (2016). Inference from signs: Peirce and the recovery of the *σμεῖσις*. *Transactions of the Charles S. Peirce Society*, 52(2), 259-284.
- Benjamin, W. ([1935] 1969). *The work of art in the age of mechanical reproduction* (Trans., H. Zohn). New York: Schocken Books.
- Bernays, E. (1947). The engineering of consent. *Annals of the American Academy of Political and Social Science*, (250), 113-120.
- Borges, P. (2010). A visual model of Peirce’s 66 classes of signs unravels his late proposal of

- enlarging semiotic theory. In L. Magnani, W. Carnielli & C. Pizzi (Eds.), *Model-based reasoning in science and technology: Abduction, logic, and computational discovery* (pp. 221-237). Berlin: Springer.
- Borges, P. (2016). A system of 21 classes of signs as an instrument of inquiry. *American Journal of Semiotics*, 31(3-4), 245-276.
- Farias, P., & Queiroz, J. (2003). On diagrams for Peirces 10, 28, and 66 classes of signs. *Semiotica*, (147), 165-184.
- Farias, P., & Queiroz, J. (2004). 10cubes and 3N3: Using interactive diagrams to investigate Charles Peirce's classifications of signs. *Semiotica*, (151), 41-63.
- Farias, P., & Queiroz, J. (2014a). On Peirce's diagrammatic models for ten classes of signs. *Semiotica*, (202), 657-671.
- Farias, P., & Queiroz, J. (2014b). On Peirce's visualization of the classifications of signs. In T. Thellefsen & B. Sorensen (Eds.), *Charles Sanders Peirce in his own words: 100 years of semiotics, communication and cognition* (pp. 527-535). Berlin: De Gruyter Mouton.
- Farias, P., & Queiroz, J. (2017). Visualizing triadic relations: Diagrams for Charles S. Peirce's classification of signs. *Information Design Journal*, 23(2), 127-147.
- Jappy, T. (2013). *Introduction to Peircean visual semiotics*. London: Bloomsbury.
- Jappy, T. (2016). *Peirce's twenty-eight classes of signs and the philosophy of representation: Rhetoric, interpretation and hexadic semiosis*. London: Bloomsbury Academic.
- Jappy, T. (2020). Introduction. In T. Jappy (Ed.), *The Bloomsbury companion to contemporary Peircean semiotics* (pp. 10-29). London: Bloomsbury.
- Marty, R. (2020). The simplest model for the ten classes of signs. Retrieved from https://www.academia.edu/44347570/The_simplest_model_for_the_ten_classes_of_signs
- Peirce, C. S. (1931-1958). *Collected papers of Charles Sanders Peirce* (8 Volumes) (Eds., C. Hartshorne, P. Weiss & A. W. Burks). Cambridge, MA: Harvard University Press. (CP)
- Peirce C. S. (1992). *The essential Peirce: Selected philosophical writings* (Vol. 1: 1867-1893) (Eds., N. Houser & C. J. Kloesel). Bloomington: Indiana University Press. (EP1)
- Peirce, C. S. (1998). *The essential Peirce* (Vol. 2) (Eds., Peirce Edition Project). Bloomington: Indiana University Press. (EP2)
- Peirce, C. S. (2009). *The logic of interdisciplinarity: The Monist-Series* (Ed., E. Bisanz). Berlin: Akademie Verlag GmbH. (LI)
- Peirce, C. S., & Welby-Gregory, V. (1977). *Semiotic and signification: The correspondence between C. S. Peirce and Victoria Lady Welby* (Ed., C. S. Hardwick). Bloomington: Indiana University Press. (SS)

Romanini, V. (2014). Semeiosis as a living process. In V. Romanini & E. Fernández (Eds.), *Peirce and biosemiotics: A guess at the riddle of life* (pp. 215-239). Dordrecht: Springer.

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