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The Philosophy of Representation

Since the study seeks to establish the theoretical differences between two of Peirce's sign-systems, the purpose of this first chapter is to provide the reader with as complete a description as space allows of the one which was conceived late in 1903.¹ It is in this context that the term 'Philosophy of Representation' has been adopted to cover all aspects of Peirce's sign theory at that time:

Now it may be that *logic* ought to be the science of Thirdness in general. But as I have studied it, it is simply the science of what must be and ought to be true representation, so far as representation can be known without any gathering of special facts beyond our ordinary daily life. It is in short The Philosophy of Representation.² (R465, 1903)

The expression itself is from a draft of the third of the Lowell Lectures on logic but as it was used by Peirce after a discussion of degeneracy the editors obviously thought it more thematically appropriate to group it with texts on phenomenology in Volume One of the *Collected Papers* instead of in Volume Two with the other texts on signs from the Lectures. This is of no consequence. The expression usefully exploits the fact that Peirce grew over the years preceding the lectures to conceive of logic in two ways – a specialized branch of logic and a broader conception composed of three distinct but interrelated branches, this being the 'grand' logic. Moreover, since up to and including 1903 Peirce considered signs as the units of representation, and since, by 'representation' he meant a signifying process of the widest possible scope,³ the notion that logic should be considered as the general philosophy of representation – a love of knowledge and a search for knowledge in the field of representation, therefore – is entirely appropriate.

The chapter traces what one can consider to be the major developments of the theory up to and including the Lowell Lectures on logic. From a semiotic point of view it was a remarkable achievement, an autonomous and complete descriptive system accounting for ten logically valid classes of signs. However,

like all theories, it was subject to revision, as a consequence of the intellectual restlessness of its founder and his quest to discover all possible types of signs. For convenience, the subject matter of the chapter has been divided into three distinct sections. The broad lines of the trivium forming the philosophy of representation are introduced first as an explanation of one theme from the general title of the study; the second reviews the most relevant aspects of the theoretical background to Peirce's theory of signs and the advancement of knowledge leading to the period of the Lowell Lectures; the third describes the theory of the sign developed in the Lectures and their accompanying *Syllabus* of November and December 1903.⁴ This is not an arbitrary decision. Many Peirce scholars see three or four stages in the development of Peirce's thinking on signs, the 1903 stage being referred to as the 'interim' stage by Atkin (2010) and Liszka (1996), for example. As I shall be contrasting the 1903 system with the 28-class system of 1908 the third section effectively corresponds to that interim stage. The chapter concludes with a summary of the characteristics of Peirce's theory of semiotics in 1903 and a discussion of their interest for the general study. As the theory presented here is necessarily a personal point of view, I have appended bibliographical references to other accounts of the way Peirce's logic developed in this particular period in order to offer the reader a balanced presentation of the problem.

The philosophy of representation

Peirce's logical trivium was based upon the structure of the medieval teaching system composed of grammar, logic and rhetoric, itself an outgrowth of Ancient Greek theory. In the Lowell Lectures he defined it and its relation to his conception of logic in the following manner:

All thought being performed by means of signs, Logic may be regarded as the science of the general laws of signs. It has three branches: (1) Speculative Grammar, or the general theory of the nature and meanings of signs, whether they be icons indices, or symbols; (2) Critic, which classifies arguments and determines the validity and degree of force of each kind; (3) Methodetic, which studies the methods that ought to be pursued in the investigation, in the exposition, and in the application of truth. Each division depends on that which precedes it. (CP 1.191, 1903)

The three branches received different denominations over the years, but the important point to note is that logic in the broad sense – a 'grand' logic – is a field of study comprising three hierarchically organized branches, while

logic in the narrow sense is but one of the three. He termed the latter ‘critic’, the branch of the philosophy of representation concerned with the validity of inferences, these being classified within the relation holding between a sign and the object it represents. Speculative grammar is the first of the three branches. As the final sentence in the quotation notes, its relative position within the group, or order of ‘application’, is significant since it deals broadly with the conditions of signhood: determining what constitutes a sign is obviously a priority, given that the other two branches necessarily depend upon an entity’s having been previously identified as a sign within speculative grammar. The last of the three, the least developed and the branch that Peirce ultimately found most difficult to circumscribe to his satisfaction, is the one he refers to at this point as ‘Methodeutic’. As Peirce understood it in 1903 this branch sought to validate the conditions governing signs and the interpretants they were intended to determine. The term ‘methodeutic’ alternated until 1906 with ‘speculative rhetoric’, a case of a terminological instability which pertains specifically to the nature and function of this third branch of the grand logic, and scholars reviewing it have found considerable variation in the terms and definitions concerning it: Kent (1987: 206), for one, identifies nine different denominations for the methodeutic branch, while more recently Liszka (2000: 440) cites seven different names for the rhetoric and something like 30 different definitions, some of which will be met with in the following sections. This, then, was the tripartite structure of Peirce’s grand logic, his philosophy of representation of 1903.

The semio-philosophical background

It is a fact that no theory, philosophical or otherwise, suddenly breaks upon an unsuspecting world *ex nihilo*, and Peirce’s semiotics is no exception: like that of others, his thinking on signs was determined partly from what he had read and absorbed from the Western philosophical tradition, from the Greeks and the Scholastics in particular, and partly from his reactions to it. However, it is the philosophy of the modern period that is most pertinent to the development of his theory of the sign. In this context, the study of the nature and origin of knowledge was decisive as far as the peculiar emphasis of the theory was concerned, given that for Peirce knowledge could only be acquired by signs: ‘and a sign is something by knowing which we know something more,’ he was to write to Lady Welby in 1904 (CP 8.332). Since one of the problems of knowledge is to determine how the judgements which more sceptical positions enjoin us

to suspend are actually derived from sense data, it was essential for Peirce to be able to offer a logical, as opposed to a psychological, account of their formation and progress from their source at the 'gate of perception', as he puts it. And as he was initially concerned to hypothesize how knowledge could be obtained from perception his semiotics evolved into a powerful and original set of statements concerning the sign. Furthermore, the inquiry into, and modelling of, the cognitive processes by which knowledge is acquired inevitably determined the number and nature of the elements involved in the model. In Peirce's early work there were three: sense data, percept and perceptual judgement. Since, from the start, he always conceived the latter of these as being inferential in nature, there was no theoretical reason why these stages or 'moments' in the knowledge acquisition process should not be assimilated to those involved in the interpretation of signs generally. The following sections, then, exploit this aspect of Peirce's semiotics by comparing and contrasting it with concepts from the work of John Locke and Emmanuel Kant, two of the major figures of the constructive, anti-sceptic strain of Western philosophy.

Testimony from Peirce himself argues, perhaps, for a more comprehensive discussion of the latter than of the former: we learn that his earliest readings in philosophy were in the 'classical German schools' (CP 1.4, c.1897); that in 1855, under the influence of his father, he began to study the first *Critique* two hours a day over a period of three years until he virtually knew it by heart (CP 1.4, c.1897); and that, as a consequence, he was 'in the early sixties a passionate devotee of Kant, at least as regarded the Transcendental Analytic in the *Critic of the Pure Reason*' (CP 4.2, 1898). However, Kant's influence upon Peirce's early thought has been extensively discussed by many major studies, Deledalle (1987) and Murphey (1993), for instance, which renders such an enterprise redundant in the present context. Locke, on the other hand, might initially seem an improbable choice, for evidence from Peirce gives the impression that there were other, more important influences: Aristotle, the Scholastics and, above all, Kant.

The decision to include comparison with Locke is to a large extent justified by the fact that the chapter seeks to show how Peirce's theories of knowledge and the sign, which in this study has been identified as the philosophy of representation, belong to an established empiricist philosophical tradition. In this context Locke is a thinker with whom the general reader will probably be far more familiar, whereas Peirce's 'obligation' to Kant is probably best seen as a debt by disagreement: having devoted much of his early philosophical energy to the assimilation of the critical philosophy, Peirce came to define his own philosophy in reaction to that of his teacher. The debt to Locke is potentially of the same

type, although less clear-cut and, in one area at least, possibly one that Peirce was not entirely aware of. For while Locke's use of the term 'semeiotic' to refer to his doctrine of signs, for example, was subsequently taken up by Peirce, thereby justifying at least a cursory study of the *Essay Concerning Human Understanding*, Locke may nevertheless have exerted more subtle influences.

It should be noted that Peirce's theory of semiotics and its place in the overall scheme of the sciences underwent considerable modifications, but the general tendency seems to be that whereas Peirce was initially a self-confessed Kantian who spent his first years in philosophy throwing off the transcendental yoke, so to speak, to the extent that he ultimately repudiated much of what he had learned from his teacher, the influence he received from Locke followed the opposite course: although never ever more than a background figure among the influences Peirce explicitly and repeatedly acknowledged, Locke's concepts of semeiotic and experience were to become progressively more important as his own thinking matured and his conception of the categories, for example, matured in the years at the beginning of the twentieth century. The purpose of this second section of the chapter, then, is not to engage in yet another analysis of, for example, Locke's epistemology and its alleged inconsistencies and contradictions or in yet another piece of eighteenth-century exegesis – such a task is not only beyond the scope of the present study, it is also irrelevant – but rather to pinpoint and illustrate selected aspects of the specificity of Peirce's thought by contrasting them with earlier theoretical statements from the same tradition.

Semeiotic

By virtue of a 'discontinued way of writing', interrupted by political activities, Locke took nearly twenty years to complete *An Essay Concerning Human Understanding* (henceforth the *Essay*), and, by the time of his death, had prepared a fifth edition of the text. In spite of the modifications brought to the three subsequent editions published in his lifetime, the text nevertheless constitutes a single, relatively homogeneous statement on the problem of knowledge. Peirce, in contrast, spent some fifty years constructing and considerably revising a theory of semiotics, cognition and scientific inquiry which was never completely consigned to a single text, and consequently poses problems of interpretation of an entirely different order. In spite of this, we begin with a discussion of what must naturally seem to be Peirce's principal debt to Locke, namely Locke's 'semeiotic', or doctrine of signs.

Although the third book of the *Essay*, titled 'Words', is devoted to language and various forms of linguistic use and abuse, it is not until the final chapter of Book

IV that Locke defines the object of his theory of signs and their specific function in relation to the epistemological predicament exploited by scepticism, namely the discontinuity between the apprehending mind and objects in the world:

Thirdly, the third branch may be called *Σεμειωτική*, or *the doctrine of signs*; the most usual whereof being words, it is aptly enough termed also *Λογική*, logic; the business whereof is to consider the nature of the signs the mind makes use of for the understanding of things, or conveying its knowledge to others. For, since the things the mind contemplates are none of them, besides itself, present to the understanding, it is necessary that something else, as a sign or representation of the thing it considers, should be present to it; and these are *ideas*. ([1690] 1964: IV, xxi, 4)

The passage calls for a number of comments. First, in anticipation of Peirce, Locke locates his doctrine of signs within a scheme which classifies the sciences of the understanding according to their specific function in the ‘commonwealth of learning’ to which he alludes in the Epistle to the reader. Second, the ‘ideas’ that Locke has been working into a theory of knowledge are here defined explicitly as proxies, or surrogates, standing to the mind for objects, particularly substances, which, by the nature of things, cannot be present there of themselves. What Peirce actually thought of this definition is apparently not recorded, but there can be little doubt as to his initial approval: it posits that signs or ideas enter, together with ‘the things the mind contemplates’ and the mind or understanding itself, into an embryonic form of the triadic relation governing his own sign, object and interpretant. It implies, moreover, that with the obvious exception of the immediate degree of knowledge which Locke had inherited from Descartes, and, allowing for the fact that cognitions (i.e. ideas) are determined immediately by qualities, such a process of knowledge acquisition functions by inference, and considers not only ‘public’ representations but thoughts, too, to be the referents of signs. Third, just as Peirce was to do two centuries later, Locke conceives his doctrine of signs as a form of logic, the principal business of which being to determine the nature of the signs used to register and communicate ideas. Peirce, however, as mentioned above, considered logic in two distinct manners, although, here as elsewhere, he was not entirely satisfied with his definitions. Consider, for example, the following statement, an alternative to the quotation from the Lowell Lectures with which the philosophy of representation was introduced above:

The term “logic” is unscientifically by me employed in two distinct senses. In its narrower sense, it is the science of the necessary conditions of the attainment of truth. In its broader sense, it is the science of the necessary laws of thought,

or, still better (thought always taking place by means of signs), it is general semeiotic, treating not merely of truth, but also of the general conditions of signs being signs ... also of the laws of the evolution of thought. (CP 1.444, c. 1896)

Peirce had already defined logic at this time to be what he called, variously, 'semeiotic', 'semiotic'⁵ or, on at least one occasion, 'semiotics': as we saw earlier, it was both the entire grand logic and also the narrower branch of the trivium (the term 'critic' itself was borrowed from Locke). Surprisingly, in a fragment from 1906 he redefined the scope of his whole research enterprise by positing independent logics for icons and indices, and restricting the scope of the trivium, now no longer general, to the symbol alone, a position uncannily reminiscent of his work in the 1860s:

Therefore, I extend logic to embrace all the necessary principles of semeiotic, and I recognize a logic of icons, and a logic of indices, as well as a logic of symbols; and in this last I recognize three divisions: *Stecheotic* (or stoicheiology), which I formerly called Speculative Grammar; *Critic*, which I formerly called Logic; and *Methodeutic*, which I formerly called Speculative Rhetoric. (CP 4.9, 1906)

The trivium, then, by this account, is restricted to the study of the symbol. Later still, however, in a draft to Lady Welby, with whom he had begun to exchange views on matters of signification and logic in 1903, he returned to the earlier conception of the grand logic, considering it once more to be a general semeiotic: 'It seems to me that one of the first useful steps toward a science of semeiotic (sémeiōtiké), or the cenoscopic science of signs, must be the accurate definition, or logical analysis, of the concepts of the science' (CP 8.343, 1908). Finally, he claimed in another draft to her that he was working on a 'logic-book' to be titled 'Logic considered as Semeiotic' (CP 8.377, 1908). The classificatory wheel has come full circle.

The Peirce scholar Max Fisch has suggested with respect to such statements that Peirce began his career as a logician by rebutting Locke's conception of logic as the general doctrine of signs (1986: 321–55):⁶ Fisch calls this 'logic-within-semeiotic'. No doubt still under the influence of Kant, and with a conception of the categories restricted to thought, Peirce considered the business of logic to be the study of symbols, more precisely, of arguments or inference generally. By the mid-1880s, however, he had come to realize that a theory of signs cannot dispense with icons and indices, and apparently conceded in deference to Locke that logic might well have a second, broader application. Finally, by 1902, Fisch claims, the original, restricted conception of logic was dropped altogether. 'It has taken Peirce most of his productive lifetime,' he concludes, 'to come all the way

back to Locke' and to see semiotics as 'logic-as-semeiotic'.⁷ Whatever the merits of Fisch's analysis, it suggests that a comparison of Peirce's later, more elaborate version with Locke's theory of semeiotic contributes to our understanding of how a doctrine of signs can become a system of logic. Concerning the way each locates his doctrine of signs within a classification of the sciences, however, they differ considerably.

Architectonic

In the penultimate chapter of the *Critique of Pure Reason*, Kant writes, 'By the term *Architectonic* I mean the art of constructing a system. Without systematic unity, our knowledge cannot become a science; it will be an aggregate, not a system Reason cannot permit our knowledge to remain in an unconnected and rhapsodistic state, but requires that the sum of our cognitions should constitute a system' ([1787] 1974: 471).⁸ Now, with the exposition of his cognitive theory completed, Locke undertook, in the final chapter of the *Essay*, a schematic classification of the sciences involved in the study of 'all that can fall within the compass of human understanding', namely, as he claimed, natural philosophy, or knowledge of things; practical philosophy, or ethics; and, finally, semiotics, which studies the signs used by the understanding for private and public purposes, that is, the recording and communicating of ideas. Since the majority of signs used by the understanding are words, he suggested that logic might be an alternative name for this science. This classification is restricted to three sciences, suggests a natural division of all objects of knowledge, but distributes these objects across distinct, unrelated fields of inquiry: 'All which three, viz. *things*, as they are in themselves knowable, *actions* as they depend on us, in order to happiness, and the right use of *signs* in order to knowledge, being *toto coelo* different, they seemed to me to be the three great provinces of the intellectual world, wholly separate and distinct one from another' (*Essay*, IV, xxi, 5). By Kant's definition, then, Locke's classification is an aggregate, not a system, or 'organism': in short, it is not governed by the architectonic principle.

In contrast, as we saw earlier, Peirce's conception of science *is* systematic and architectonic, and the various classifications of the sciences that he established particularly in the early years of the twentieth century posit them explicitly as a unified system in which the sciences were related organically. This architectonic feature of his philosophy was not the only one he inherited from Kant, for his research is characterized by the gradual emergence of a consistent set of categories within a very personal conception of phenomenology, his extensive

use of the triad and the doctrine that every cognition involves an inference of some form: all Kantian in origin, although the philosophical antecedents for sets of categories can be traced at least back to Aristotle.

Phenomenology

Briefly, the final classification of the sciences that Peirce published in 1903 distinguishes between theoretical and practical sciences. The theoretical sciences then subdivide into the sciences of review and the sciences of discovery. Philosophy follows mathematics in the sciences of discovery, precedes a field of inquiry Peirce calls 'Ideoscopy' and itself subdivides into phenomenology, normative science and metaphysics: 'Phenomenology ascertains and studies the kinds of elements universally present in the phenomenon; meaning by the *phenomenon*, whatever is present at any time to the mind in any way. Normative science distinguishes what ought to be from what ought not to be ... Normative science rests largely on phenomenology and mathematics ...' (CP 1.186, 1903). This abridged sample of the much larger classification is architectonic in that the subdivisions tend to be trichotomic and the various fields of study are ordered in such a way that the later presuppose theoretical principles established in the earlier, obeying what might be called the 'dependency principle' of the architectonic. Logic, as mentioned above in the introduction to the philosophy of representation, depends upon ethics, which itself depends upon aesthetics.

The noteworthy feature of this classification resides in the fact that it departs from previous versions with respect to relations between the categories and logic, and also to the changing status of logic itself. In his earlier writings, Peirce had made the categories, of which there were five in the mid-1860s, dependent upon logic. By 1903, he had created a new science to deal with this part of the system, which he called 'phenomenology'⁹ and which was now independent of logic, presupposing only concepts provided by mathematics. By this time, too, his whole conception of logic had undergone considerable revision and no longer fulfilled a constitutive function in his epistemology, but a regulative one, hence its place among the normative sciences, that is, among the sciences which say how things should be, and not what they are. As a result of a series of theoretical problems pertaining to the coherence and mutual compatibility of the various parts of the organism (cf. Murphey 1993), Peirce was obliged to modify the relations between them if the architectonic principle advocated by Kant was to be preserved. The subject-predicate conception of logic characteristic of Peirce's early period, for example, was entirely conventional. However, by 1870, when

he had come to appreciate the importance of De Morgan's 1860 paper 'On the Syllogism IV and the Logic of Relations', he had abandoned the subject-predicate form of logic and he was beginning to publish on the logic of relations himself. He subsequently divided logic into two distinct parts and classified formal logic, including the logic of relations, as a branch of mathematics.

Thus by 1903, since phenomenology presupposes mathematics, it had become possible for Peirce to distinguish between the material 'content' of the categories, which he identified as Firstness, Secondness and Thirdness, and their formal structure, namely the monad, dyad and triad, respectively. In other words, whereas Locke had conceived a system of ideas which accounted simply for the content of experience, and whereas Kant had made the form of experience a function of one of twelve mind-given, but spurious categories,¹⁰ Peirce had, in 1903, in contrast to both, set up a system of three categories uniting both the form *and* content of experience on the basis of the logic of relations. Furthermore, on the strength of the theorem that any *n*-adic relation could be accounted for by a triad,¹¹ he was able to claim that the system was complete. It is in this way that, instead of being derived from logic, the theory of the categories had become 'pre-logical' in Peirce's scheme of 1903. This is the uncompromising description he gave of the categories of Firstness, Secondness and Thirdness in the course of his Harvard Lectures on Pragmatism of 1903, where by the phenomenon, as we saw above, he means 'whatever is present at any time to the mind in any way' (CP 1.186):

Category the First is the Idea of that which is such as it is regardless of anything else. That is to say, it is a *Quality* of Feeling.

Category the Second is the Idea of that which is such as it is as being Second to some First, regardless of anything else, and in particular regardless of any Law, although it may conform to a law. That is to say, it is *Reaction* as an element of the Phenomenon.

Category the Third is the Idea of that which is such as it is as being a Third, or Medium, between a Second and its First. That is to say, it is *Representation* as an element of the Phenomenon. (CP 5.66, 1903)

The notions of quality, feeling and reaction were to reappear frequently in the years to come. Furthermore, he introduced at this point a concept derived from the theory of prescission or mental 'abstraction', expounded in his early work of the 1860s, namely a principle of degeneracy (CP 5.66, 1903). Anything which is considered 'regardless of anything else' can have nothing prescinded or mentally abstracted from it: nothing can be prescinded from a Firstness; it just is as it is. On the other hand, Firstness can be prescinded from Secondness: the

table I am typing on exists, resists the weight of my computer, my elbows and my cup of coffee, capacities which instantiate its Secondness. However, it necessarily has properties, its Firstnesses: made of wood, dark brown, rectangular in shape, hard to the touch etc., properties which can be prescinded mentally from the table, but in themselves intangible. These are 'degenerate' forms of the table's Secondness. Similarly, Thirdness has two degrees of degeneracy; in other words both Firstness and Secondness can be prescinded from it. Consider the simple case of the following utterance: *My table is made of mahogany*. This is a sign which conveys meaning to an interpreter, and illustrates Thirdness. However, in order to be perceived aurally by anyone at all it has to produce airwaves of a particular type, and thus has a material existence that can be plotted, for example, as a sound spectrogram, this being the utterance's Secondness. Finally there is a feeling or quality about the way it is pronounced – whispered, cajoling, screamed, hoarsely etc. This feeling or quality is perceivable but intangible, and constitutes a form of Firstness – whatever the sound qualities heard, they are such as they are, independently of anything else, and they produce a similar qualitative effect as part of the interpretation. The principle whereby the simpler categories can be prescinded from the more complex was to have important implications for his theory of signs of 1903.

The reasons for the pre-eminence of phenomenology within the system at that time and the reasons why a theory of cognition and discovery should need such an elaborate structure will be illustrated below. For the moment, we note simply that the normative, as opposed to the formal, mathematical aspect of logic – in other words, the philosophy of representation – subdivides by the architectonic principle into three branches, the first of which as we saw above, being speculative grammar. This Peirce defines as the general theory of the nature and meaning of signs and, since logic is a classificatory science,¹² speculative grammar determines, among other things, whether a sign is an icon, an index or a symbol (CP 1.191, 1903).

Conceptions and signs

This leads to an important difference between the two empiricist conceptions of the sign, and its implications for a general semiotic theory. In Locke's case ideas are either mental or verbal: no finer distinctions are deemed necessary, and the function and interaction of signs are both very much static affairs. Moreover, as mentioned before, Locke's reference to the vague notion of 'idea' makes no distinction between the content of experience and its formal structure. Peirce,

by contrast, was constantly preoccupied by such considerations, and this took the particular form of an investigation into the way the sign functioned as a cognition within the relation of representation which had preoccupied him for almost forty years. Thus, in his earliest writings, where we find him struggling with the problem of the categories and the way to deduce them in what he considered a less fallible manner than that of his German master, he derived the concept of representation from what he considered at the time to be the five 'universal' conceptions, but subsequently reduced to three when he made logic dependent upon phenomenology and removed the categories from logic.

Like Kant, Peirce held that the function of conceptions was 'to reduce the manifold of sensuous impressions to unity' (CP 1.545, 1867), the unity in question taking at that time, as noted above, the form of a proposition of conventional subject-predicate logic. In this view, for example, such conceptions would be considered to be at work at this very moment in my understanding to reduce the multitude of stimuli emanating from the external world to the unity of the proposition: 'My table is made of mahogany'. Unlike the said table, the proposition is not 'public', is not 'in the world', as it were, until uttered, but, rather, in someone's mind. In this early scheme, three other conceptions were involved in the passage from the manifold of substance to the unity of being, namely quality, relation, and representation, these being respectively a function of three types of 'reference' within the constitution of the proposition: reference to a ground or character, reference to a correlate and reference to an interpretant. This system is, clearly, nothing less than a prototypical definition of the sign relation upon which Peirce was to build his entire logic. He notes, 'Now the three links composing this chain [of conceptions], namely reference to a ground, reference to a correlate, and to a correspondent afford the elements of a complete system of logic' (W1 353, 1866). Further, from an analysis of the three items involved in the function of the third conception, representation, namely the relate, the correlate and the correspondent, Peirce was able to classify the various classes of representations:

[W]here the *repraesentamen* has a real agreement with its object, the representation consists in a *likeness*; a simple quality is shown but the object itself is not said to exist. In the second case, there is a real difference of the *repraesentamen* from its object ... in this case the representative character of the one will consist in constant accompaniment of the other, so that it *indicates* the existence of the latter without noting any characters of it. Such a representation may be termed an *index*. In the third case, where the relation of the *repraesentamen* is ideal, the ground of this relation is an attribute of the

correlate *attributed* to the relate ... This gives a *general sign*, a word or conception, for the repraesentamen will necessarily apply to everything which contains its attributed quality. (W1 355)

By 1866, then, Peirce had not only deduced and illustrated his three categories, he had also defined the basic conceptions involved in cognition, subordinated them to the sign relation and had begun to work them into the logic that would ultimately yield the subclasses of icon, index (or sign, as Peirce also called it at the time) and symbol. Furthermore, in the 1860s Peirce was already trichotomizing this division by distinguishing the three types of general signs according to the elements involved in the sign relation. Thus, he defines symbols as ‘the objects of the understanding, considered as representations ... that is, signs which are at least potentially general’ (CP 1.559), and he discriminates between symbols ‘which directly determine only their *grounds* ... and are thus but sums of marks or *terms*’ (CP 1.559),¹³ symbols which also ‘independently determine their objects by means of other term or terms, and thus ... become capable of truth or falsehood, that is, are *propositions*’ (CP 1.559), and, finally, symbols ‘which also independently determine their interpretants, and thus the minds to which they appeal, by premissing a proposition or propositions which such a mind is to admit. These are *arguments*’ (CP 1.559). This can be summarized in Table 1.1.

The subdivision of the symbol constituting the lowest level of the triadic edifice described in Table 1.1, namely the term, is in all essential details the general term posited by Locke in the *Essay*. This means that in 1867, at least this part of Peirce’s logic was still virtually isomorphic with Locke’s. However, his preoccupation with logic led him not to return to Locke’s original statement but to develop a far more complex system of his own, with a decisive effect on his semiotic theory. This involved the subordination of logic to phenomenology in the classification of the sciences; the development of the categories of Firstness and Secondness in addition to the Thirdness already present in the system of the 1860s; increased awareness of the nature of reality, of the function of the object and of what Peirce termed the ‘Outward Clash’; and, finally, the development

Table 1.1 Peirce’s Trichotomy of Representamens, 1867

Sign-Object
Symbol
<i>Argument</i>
<i>Proposition</i>
<i>Term</i>
Index/sign
Likeness

of the interpretant. All of this represents a considerable departure from the semeiotic of Locke.

Categories of the forms of experience

It remains to be seen how Peirce's theory of cognition integrates the three elements of the sign relation as conceived in 1903. We have already seen that Peirce's early work on the categories derived five universal conceptions: substance, being and, between them three references, respectively, to ground, correlate and interpretant. He subsequently dropped being and substance, leaving the three 'material' categories corresponding to these three references, quality, relation and, finally, representation; seen in the light of the later categories of the forms of experience, they realize, respectively, the monad, the dyad and the triad:

The metaphysical categories of quality, fact, and law, being categories of the matter of phenomena, do not precisely correspond with the logical categories of the monad, the dyad, and the polyad or higher set, since these are categories of the forms of experience. The dyads of monads, being dyads, belong to the category of the dyad. But since they are composed of monads as their sole matter, they belong materially to the category of quality, or the monad in its material mode of being. It cannot be regarded as a *fact* that scarlet is red. It is a *truth*; but it is only an essential truth. It is that in being which corresponds in thought to Kant's analytical judgment. (CP 1.452, 1896)

These are forms that are to be found in many, if not most, of Peirce's theoretical concepts: trichotomies, the categories, the later universes of experience and their three modes of being, his triadic relations and their three correlates etc. In 1866, in an early attempt to define his categories he wrote, 'These three conceptions are all we require to erect the edifice of logic. Why they should be three is unknown; although a reason can be given for every other logical division. But this number may indicate an anthropological fact' (W1 524). This aspect of his intellectual background is obviously important for full understanding of his theory of how signs function and of the various types of signs it is possible to identify. He was, in a special sense of the term, an idealist: he belonged to a philosophical tradition reaching back to Pythagoras via Newton, Descartes and Leibnitz, to name but these; that is, to a tradition which holds that number is the key to our understanding of the world around us (CP 1.421 c. 1896).

He was aware of the possible '*anticipated suspicion that he forces divisions to a Procrustean bed of trichotomy*' (CP 1.568, 1910) that he might encounter over his insistence on the theoretical importance of the number three – its inevitable

association with the Trinity and thence with theology and religion – but declared himself innocent of ‘triadoman’, that is, of attaching ‘a superstitious or fanciful importance to the number three’ (CP 1.568, 1910). After all, by 1903 Peirce had founded his semiotics upon his theory of phenomenology, which itself turned upon the number three. Moreover, by virtue of the theorem mentioned above that any n -adic relation could be accounted for by a triad, he had argued but without real proof that three ‘objects’ or correlates were all that were necessary in such cases, and that any higher n -adic relation could be accounted for by a triad: ‘A triad is something more than a congeries of pairs Systems of more than three objects may be analyzed into congeries of triads’ (NEM4 307, 1894?). In matters of internal structure Peirce’s classifications are now far from Locke’s aggregate of sciences.

Continuous interpretant series

Thus the sign relation that Peirce named ‘representation’ in his early work on cognition and which is obviously the object of his philosophy of representation of 1903 – ‘so far as representation can be known without any gathering of special facts beyond our ordinary daily life’ – can be considered as the archetype of all triadic relations, and the basis of all cognition. Just how the process pertains to the sign relation and its three relates is best seen in the light of the work on reference to an interpretant, particularly as it is realized in comparison. In a rough draft of a paper subsequently published under the title ‘On a New List of Categories’ (1867), Peirce defines the interpretant thus:

Reference to a correlate is clearly justified and made possible solely by comparison. Let us inquire, then, in what comparison consists Suppose, we look out the word *homme* in a French dictionary; we shall find opposite to it the word *man*, which, so placed, represents *homme* as representing the same two-legged creature which *man* represents. In a similar way, it will be found that every comparison requires, besides the related thing, the ground and the correlate, also a *mediating representation which represents the relate to be a representation of the same correlate which this mediating representation itself represents*. Such a mediating representation I call an *interpretant*, because it fulfils the office of an interpreter who says that a foreigner says the same thing that he himself says. (W1 522–23)

Within the theory of cognition this means that since there can be no first thought, or intuition, the system is set in motion, so to speak, by the sense data determined by the object of the cognition, and every thought determined by that

object determines an interpreting thought that refers to that same object within a continuous process which admits of no first stage. Empirically, this is difficult to accept, as we imagine cognitions to be the results of discrete events, but within the logic of continuity it presents no problem. The process is well illustrated by any text. Since they are recorded in an existential medium, all texts have a first sentence, of which all subsequent sentences are the successively more complex interpretants. By integrating previously given information, both negatively and positively (e.g. by ellipsis and repetition), these successive interpretant sentences collectively ensure the text's syntactical cohesion and semantic coherence. However, at 'thought level', so to speak, where the text originated, things are quite different, for logically what functions as the first sentence of the physical text is, in fact, an inference from prior cognitions, and it would be virtually impossible to trace the text to any such origins at this level.¹⁴

In this way thoughts are translatable, and indeed are translated by interpretant thoughts.¹⁵ It is in this manner that the chain of inference progresses. Since Peirce denies that a cognition can be determined directly, immediately, by the object of perception, as Locke's epistemology would have us believe, and that even one's own existence is inferred and not intuited, three important principles follow from this. First, the triadic model of representation illustrates the 'kinetic' progression of the inferential processes involved in cognition. Second, no formal distinction need be made between our understanding of the world about us (including the understanding of images) and the interpretation of verbal signs. Since the two functions are isomorphic, Peirce dwells little on the 'grammar' of linguistic interpretation: language signs are simply one class of signs covered by the same general definition. Third, as we see below in the discussion of the extracts from the Lowell Lectures and the *Syllabus* that accompanied them, Peirce considered the interpretant itself to be a sign in 1903, and therefore that the interpretant series was continuous:

Genuine mediation is the character of a *Sign*. A *Sign* is anything which is related to a Second thing, its *Object*, in respect to a Quality, in such a way as to bring a Third thing, its *Interpretant*, into relation to the same Object, and that in such a way as to bring a Fourth into relation to that Object in the same form, *ad infinitum*. (CP 2.92, 1902)¹⁶

It follows that the dynamic continuity of sign-action as conceived in 1902 can be represented by Figure 1.1, where the symbol > signifies 'bring X into relation with Y', and O, S and I indicate, respectively, object, sign and interpretant, each subsequent interpretant becoming a sign for a new interpretant, ($I_1 = S_2$) for example, and so on *ad infinitum*, as Peirce claimed.

$$O > S > (I_1 = S_2) > (I_2 = S_3) > (I_3 = S_4) \dots (I_n = S_{n+1})$$

Figure 1.1 The continuous nature of semiosis as conceived in 1902

This principle of a ‘continuous’ interpretant series was a characteristic of the period in which Peirce conceived of the action of the sign as one of representation, with the sign ‘standing’ for its object, and he maintained it for a short time after 1903. However, as two later chapters will show, this was a concept that he was ultimately led to abandon: the notion of a continuous series of interpretant-signs was not to last in the manner stated in 1903.

Sign, divisions and classes in 1903

The preceding sections should have provided sufficient background information concerning Peirce’s debt to the philosophical tradition and the ways in which he departs from it for the reader to understand Peirce’s semiotics of 1903. With this in mind, we examine the relevant features which characterize the sign-systems of the ‘philosophy of representation’ in what we can consider its final form presented at the Lowell Lectures and in the brief *Syllabus* which accompanied them. Most of this material comes from two manuscripts, R478 and R540, much of which can be found in chapters 20 and 21 of volume two of *The Essential Peirce*.¹⁷ At this point the reader should remember that by the concept of ‘sign-system’ is meant not only definitions of the sign and sign-action, but also the typology these may generate.

We have seen that it was his phenomenology, or his ‘Categoric’ as he called it in the Carnegie Application of 1902, which justified his particular manner of organizing the branches of logic.¹⁸ In the first of the eight lectures Peirce set out once more the purpose of logic and the logician, and terminated the lecture with another such highly organized classification of the three branches:

The ultimate purpose of the logician is to make out the theory of how knowledge is advanced So *Methodetic*, which is the last goal of logical study, is the theory of the advancement of knowledge of all kind. But this theory is not possible until the logician has first examined all the different elementary modes of getting at truth ... This part of logic is called *Critic*. But before it is possible to enter upon this business in any rational way the first thing that is necessary is to examine thoroughly all the ways in which thought can be expressed ... I, therefore, take a position ... in regarding this introductory part of logic as

nothing but an analysis of what kinds of signs are absolutely essential to the embodiment of thought. I call it ... *Speculative grammar*. I fully agree ... in thinking that this Speculative Grammar ought not to confine its studies to those conventional signs of which language is composed, but that it will do well to widen its field of view so as to take into consideration also kinds of signs which, not being conventional, are not of the nature of language. (EP2 256–57, 1903)

We note that in this case Peirce works backwards from the most specialized of the three branches, methodeutic, which, following the tradition of constructive philosophy alluded to earlier, is the branch which promotes ‘the advancement of knowledge of all kinds’; he then introduces critic, which deals with inferences and upon which methodeutic depends; he presents, finally, the branch that deals with ‘signhood’, that is, the branch of the grand logic which establishes the conditions qualifying a given entity as a sign, classifies all possible signs and establishes an inventory of them. This organization is another illustration of the dependency principle according to which branches appearing earlier in the general system provide those coming after with relevant theoretical concepts and processes. In what follows it is the last of the three mentioned in the extract, and the most important for a theory of what constitutes a sign and the ways in which it functions, namely speculative grammar, that we deal with, leaving critic aside completely and reserving brief concluding remarks for methodeutic or, as it was also referred to at the time, speculative rhetoric. After reviewing the manner in which Peirce presents his phenomenology and the purposes he ascribes to it, the sections to follow deal, first, with the sign, its definitions and its two correlates; then with the divisions he defined, first two and then three; finally, with the ten classes of signs which Peirce obtained from these three divisions. For reasons given in the Introduction, all the quotations to follow, except where stated otherwise, are necessarily from 1903 or earlier.

Phenomenology

In the lectures Peirce approaches the problem of what constitutes a sign and the divisions and subdivisions it is involved in from two different directions – initially by the application of his categories and, in a later manuscript, by deducing the sign and its correlates in the signifying process by means of his theory of triadic relations. In both cases the reasoning he applies is justified by principles provided by his particular conception of phenomenology. This material is organized thematically in the *Collected Papers*, with the result that associated elements may appear out of chronological order. The prominence of

phenomenology and the categories in the sign theory of this period cannot be emphasized enough. Since the definition of the sign is a priority, we begin by examining the way in which the sign and its correlates were established.

Triadic relations, the sign and its correlates

What makes the sign-systems of 1903 particularly impressive is the way in which many apparently diverse aspects of Peirce's philosophy seem to be woven into the theory. Referring once more to his phenomenology, Peirce introduces the concept of triadic relations with which he is going to define the sign as the unit or agency of representation:

The principles and analogies of Phenomenology enable us to describe, in a distant way, what the divisions of triadic relations must be In the case of triadic relations, no part of this work has, as yet, been satisfactorily performed, except in some measure for the most important class of triadic relations, those of signs, or representamens, to their objects and interpretants. (CP 2.233)

As seen above, he had already established the general concept of the triadic relation to his satisfaction by the early 1890s (NEM4 307). This accomplished, he had now to distinguish between the three correlates associated by the relation, and he did so by defining them in terms of relative 'complexity'. The three correlates are the representamen, the object and the interpretant. If any of the three is the simplest in nature, it is identified as the representamen, and therefore the first correlate; if any correlate of the relation is more complex than the others, it is the interpretant, while the object is of 'middling' complexity:

We must distinguish between the First, Second, and Third Correlate of any triadic relation.

The First Correlate is that one of the three which is regarded as of the simplest nature, being a mere possibility if any one of the three is of that nature, and not being a law unless all three are of that nature. (CP 2.235)

The Third Correlate is that one of the three which is regarded as of the most complex nature, being a law if any one of the three is a law, and not being a mere possibility unless all three are of that nature. (CP 2.236)

The Second Correlate is that one of the three which is regarded as of middling complexity, so that if any two are of the same nature, as to being either mere possibilities, actual existences, or laws, then the Second Correlate is of that same nature, while if the three are all of different natures, the Second Correlate is an actual existence. (CP 2.237)

The passage not only reflects the ordering structure of triadic relations but also introduces the concept of the three 'modes of being', namely, possibility, existence and law in order of increasing complexity. These are given by the categories and Peirce employs them as criteria in the classification of signs to be discussed below. From this system of representamen, object and interpretant Peirce then establishes the sign relation:

A Representamen is the First Correlate of a triadic relation, the Second Correlate being termed its Object, and the possible Third Correlate being termed its Interpretant, by which triadic relation the possible Interpretant is determined to be the First Correlate of the same triadic relation to the same Object, and for some possible Interpretant. A Sign is a representamen of which some interpretant is a cognition of a mind. Signs are the only representamens that have been much studied. (CP 2.242)

From this it follows that for all triadic relations the first correlate is the representamen. However, in the special case where the interpretant of a representamen is a 'cognition of a mind' then that representamen is a sign. The same idea is expressed in CP 2.274: 'A Sign is a Representamen with a mental Interpretant. Possibly there may be Representamens that are not Signs.' A sign, then, is a species of representamen, although as we now see, in this period Peirce employs both terms almost interchangeably. Either is the unit of representation as Peirce conceived the purpose of sign-action in 1903. The debate generated by the presence of both terms in various definitions of signs at this time has been vigorous, to say the least; however, discussion of it in this study is deferred to Chapter 2. Both terms appear in the definitions of 1903:

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. (CP 2.274)

The triadic relation thus defined is obviously composed of a single sign, a single object and a single interpretant. It should be noted, nevertheless, that by virtue of the properties of triadic relations the third correlate, the interpretant, 'is determined to be the First Correlate of the same triadic relation to the same Object, and for some possible interpretant' – in other words, while there is only one sign or representamen, and one object, the triadic relation guarantees a possible interpretant *series* as discussed above in the final section of the general philosophical background.

Divisions of signs

Once the logical status of the sign and its two correlates has been established Peirce approaches the problem of identifying the divisions of signs from two distinct but related viewpoints and in both manuscripts. In the first text, R478, he introduces the problem with the following statement (in which the preferred term is 'representamen', but this is of no consequence):

Representamens are divided by two trichotomies. The first and most fundamental is that any Representamen is either an *Icon*, an *Index*, or a *Symbol*. Namely, while no Representamen actually functions as such until it actually determines an Interpretant, yet it becomes a Representamen as soon as it is fully capable of doing this; and its Representative Quality is not necessarily dependent upon its ever actually determining an Interpretant, nor even upon its actually having an Object. (EP2 273)

At this point Peirce envisages only two trichotomies of representamens or signs. Just why he should have considered the **S–O** trichotomy as the 'first and most fundamental' is obvious. It was 'first' for the simple reason that it was the division with which he had begun his research in logic almost forty years earlier in the mid-1860s. He held it fundamental in 1903, too, since at that time the sign was defined to represent an independent and usually absent entity, namely its object. It therefore follows that the sign's mode of representation is of paramount importance for the identification of that object. He no doubt realized subsequently that the three possible subclasses of the sign itself had to be defined before he could define the three modes of representation in a logical manner. This became possible once the status of the sign within his theory of triadic relations was clearly established in the later manuscript (R540), together with the degrees of complexity characterizing its three subclasses. In the paragraph containing the extract quoted above he also applied the categories recursively to the icon and introduced the concept of the three 'hypoicons' (EP2 273–74), image, diagram and metaphor. These were accorded a special status in the *Collected Papers* in the form of a separate paragraph, CP 2.277, presumably on account of their very original logical status. However, a detailed discussion of the hypoicons is deferred to Chapter 4, where they are compared to relevant aspects of Peirce's later semiotics.

The second trichotomy in the earlier manuscript, formed from the relation holding between the sign and the interpretant (**S–I**), distinguished between the three subdivisions of the symbol as Peirce conceived it in 1867: term, proposition and argument as presented in Table 1.1, and these are now, respectively, 'simple,

substitutive signs'; 'double, informational signs'; and, finally, 'triple, rationally persuasive signs' (EP2 275), their distinctive characteristics being indicated in this case more by number than category. However, Peirce was to define these two relational divisions more fully in the later manuscript (R540), and announced the final set in the following manner:

Signs are divisible by three trichotomies; first, according as the sign in itself is a mere quality, is an actual existent, or is a general law; secondly, according as the relation of the sign to its object consists in the sign's having some character in itself, or in some existential relation to that object, or in its relation to an interpretant; thirdly, according as its Interpretant represents it as a sign of possibility or as a sign of fact or a sign of reason. (CP 2.243)

To the two announced in the earlier text he has now added a third, non-relational trichotomy and placed it in initial position in the sequence, thereby reflecting the order of correlates in the triadic relation defining the sign, namely **S, S-O, S-I**: in other words, the order holding between representamen, object and interpretant in the basic triadic relation was extended to that of the three divisions. By now Peirce had no doubt realized that it was not logically possible to propose a rigorous definition of the relations holding between the sign and its object and the sign and its interpretant without having first established the categorial nature and logical status of the sign itself.

This first trichotomy distinguishes between qualisign, sinsign and legisign, these being, respectively, signs which are simple qualities, singular, existent signs and, finally, general signs, signs which are laws or are rule-governed (CP 2.244–246) and at the same time signs of laws. In order of growing complexity, they are realized as, for example, colours and feelings in the first case; an individual thing or occurrence, in the second; a regular sign such as the English definite article, or, indeed, any verbal sign, in the third. Peirce had already suggested that a sign by Thirdness 'without Secondness would be absurd' (EP2 270), and availing himself of the principle of degeneracy, he introduces at this point the concept of the replica: 'Every legisign signifies through an instance of its application, which may be termed a *Replica* of it. Thus, the word "the" will usually occur from fifteen to twenty-five times on a page. It is in all these occurrences one and the same word, the same legisign. Each single instance of it is a *Replica*' (CP 2.246). Thus through the application of his categories he has established that a replica is an individual existent instance of the general sign: all language signs, for example, are manifested through replicas, for the general signs themselves are thinkable but unperceivable.

The implication principle

What is now the second trichotomy distinguishes between icon, index and symbol. The interesting feature of this division is the principle by which the subdivisions lower down the categorial scale are integrated – ‘involved’ is Peirce’s term – into the higher in such a way as to account for the specificity of the class of signs and its peculiar ‘perceivability’ or materiality. In this way the icon is defined as a sign which refers to its object ‘merely by characters of its own’ (CP 2.247) which it possesses irrespective of whether the object exists or not. The index, on the other hand, represents its object by virtue of a physical connection with that object. In that case it must somehow share some quality or qualities with that object, and, therefore, involves a ‘sort of icon,’ the sign by quality: the index must have some quality or qualities making it recognizable which can be prescinded from it. For example, if we take a road-sign pointing to a nearby town as an index it is possible to prescind from it the quality of directionality, or in the case of an aria we prescind the tessitura quality of a soprano’s voice as we hear her singing. This is how Peirce describes the involvement of the icon in the index:

In so far as the Index is affected by the Object, it necessarily has some Quality in common with the Object, and it is in respect to these that it refers to the Object. It does, therefore, involve a sort of Icon, although an Icon of a peculiar kind; and it is not the mere resemblance of its Object, even in these respects which makes it a sign, but it is the actual modification of it by the Object. (CP 2.248)

In similar fashion the symbol represents its object by virtue of some law or general convention – by ‘an association of general ideas’ in Peirce’s terms – but it can only be interpreted by means of the instances it determines. This is how Peirce describes the implication principle as it concerns the symbol:

A *Symbol* is a sign which refers to the Object that it denotes by virtue of a law, usually an association of general ideas, which operates to cause the Symbol to be interpreted as referring to that Object. It is thus itself a general type or law, that is, is a *Legisign*. As such it acts through a *Replica* ... There must, therefore, be existent instances of what the Symbol denotes, although we must here understand by “existent”, existent in the possibly imaginary universe to which the Symbol refers. The Symbol will indirectly, through the association or other law, be affected by those instances; and thus the Symbol will involve a sort of Index, although an Index of a peculiar kind. It will not, however, be by any means true that the slight effect upon the Symbol of those instances accounts for the significant character of the Symbol. (CP 2.249)

It follows from this that if the symbol involves a sort of index, and the index a sort of icon, then at two removes a symbol, too, will by transitivity involve a sort of icon. For example, any Halt sign by a road junction is only one of a thousand such signs in any given country. It represents by its very existence the general law determined by the government, and is therefore a replica of that general injunction. As a replica it has indexical status in that it is placed in the exact position where the motorist is enjoined to stop his vehicle. In addition, it is only recognizable as a Halt sign by virtue of its distinctive characteristics or qualities – shape, colour, height, its verbal elements etc. In short, it also involves an icon: in this case Thirdness involves a Secondness which involves Firstnesses. This implication, or involvement, principle, which is sanctioned by the phenomenology, is an important characteristic of Peirce's conception of signs in this period, and concerns all three divisions.

The second trichotomy of R478 is now the third of R540, and distinguishes between rheme, dicisign and argument. The first is a sign of qualitative possibility; it is understood, says Peirce, as representing 'such and such a kind of possible object', and although it may provide information, it is not interpreted as doing so (CP 2.250). This is the case with any common noun or verb: on their own the words *book*, *wife* or *give* tell us nothing, they simply denote classes of objects or processes, and are neither true nor false. The dicisign or dicent sign, on the other hand, was defined in the earlier manuscript as an informational sign, and is therefore a step up the categorial scale from the rheme: *I gave my wife a book*, for example, is an informational sign. It can be either true or false, although dicisigns always represent themselves to be true representations of events or facts, otherwise communication would be impossible. It is a double sign with a 'syntax' which associates two elements: a subject and a predicate, or, paraphrasing statements in R478, an index and an icon (cf. CP 2.310). Finally the argument, or triple sign, is any inference, of which three principal forms – abduction, deduction and induction – are examined in the critic branch of the philosophy of representation. It is a triple sign as it generally involves two premisses and a conclusion as in any syllogism (CP 2.309).

The ten classes of signs of 1903

The final feature of speculative grammar is the ultimate goal of all Peirce's work in this branch, the identification of classes of signs. Having defined the sign and its correlates, organized them into trichotomies and then subdivided these according to categorial distinctions, Peirce is able to extract from the resultant nine subdivisions ten classes of signs according to the complexity these

subdivisions exhibit. Table 1.2 summarizes the system of three trichotomies established by Peirce in 1903, while the three categories serve as the criteria on a scale of increasing complexity.

Table 1.2 is based upon a scheme to be found in Peirce’s ‘Logic Notebook’ and is reproduced as Figure 1.2. This shows how Peirce established the relations between the various subdivisions and so identified the ten classes.

The rules drawn by Peirce in Figure 1.2 are simple. First, two vertical lines associating three subdivisions form a class. For example, the first class, the *qualisign*, is obtained by tracing the leftmost pair of vertical lines from qualisign to rheme through icon. Similarly a second class is obtained by tracing from sinsign to dicisign through index, yielding a *dicent (indexical) sinsign*, a photograph for example. Finally, a third vertical trace leads from legisign to argument through symbol, yielding an *argument*. At this point we note that

Table 1.2 A Synthesis of MSS R478 and R540, 1903

	Division		
	Sign	Sign-Object	Sign-Interpretant
Category			
Thirdness	Legisign	Symbol	Argument
Secondness	Sinsign	Index	Dicisign
Firstness	Qualisign	Icon	Rheme

Figure 1.2 Extract from R339, 239v (H450)

there are redundant indications in some signs and so they are dropped in the final terminology. For example, since the two vertical lines lead necessarily from qualisign to icon to rheme, naming the latter two is superfluous; similarly, as the two vertical lines show, an argument can only be linked to a symbol and from the symbol to the legisign, so there is no point in mentioning either of the latter two in the designation. Similarly since the tracing from sinsign to dicisign necessarily passes through the index, mention of the latter is again superfluous.

The second rule allows a downward diagonal trace from right to left, going from the more complex subdivisions to the less. For example, it is possible to trace a class from sinsign to icon, which necessarily leads to rheme. This yields the *iconic sinsign*, 'a sign by likeness purely' (EP2 294), where mention of the rhematic status of such a sign is superfluous. Similarly, tracing from legisign to index to rheme yields the *rhematic indexical legisign*, a personal pronoun, for example. Note that since each stage in this particular tracing is on a different complexity level from the earlier, it has to be mentioned in the designation. In this way Peirce was able to extract ten such classes, which he numbered in order of relative complexity. His triangular table is to be found in paragraph CP 2.264, while there is a much clearer representation on page 296 of *Essential Peirce Two*. For completeness they are given as follows and can easily be traced in Figure 1.2: 1, qualisign; 2, iconic sinsign; 3, rhematic indexical sinsign; 4, dicent sinsign; 5, iconic legisign; 6, rhematic indexical legisign; 7, dicent indexical legisign; 8, rhematic symbol; 9, dicent symbol; 10 argument. As a conclusion to the discussion of the ten classes we examine three examples from the subdivisions of Peirce's 'first and most fundamental' trichotomy, since this is the best known of all. The first is an eighteenth-century drawing of the river Thames (Figure 1.3).

This image is composed of lines, shapes and, in the original, muted colours – all qualities. It is an example of a sign by likeness or similarity, and on it we recognize human figures, trees, buildings, boats and a river. It is thus what is generally referred to simply as an icon, although the term 'icon' itself is not a complete classification. As it is a sign by likeness alone it cannot offer proof of the existence of the objects it depicts, and if translated into a sort of proposition, its structure would be represented as '—is like this', where the dash means 'something, possibly' and the 'like this' is the pictorial representation: there may have been something with the qualities depicted but the image cannot prove this. However, as a class the image on its own is to be identified as an iconic sinsign – it must be inscribed on some sort of medium, here paper, otherwise we

Figure 1.3 Cheyne Walk, London, © Museum of London Picture Library.

should be unable to perceive the qualities composing it. That paper medium is an existent object, hence the image is a sinsign. Continuing the analysis we note that it has a caption: *Cheyne Walk, London*. If we take this complex indexical proper noun into account, the syntactic structure of the sign is double and has the structure of a proposition: a complex index functioning as the subject plus an icon as predicate. The syntax of this more complex sign is now ‘Cheyne Walk, London, is like this’, where ‘this’ is the pictorial representation. Since the index is composed of verbal signs, it is necessarily a legisign or a replica of one. The complete sign of image plus caption composes a dicisign, namely a dicent indexical legisign.

Now compare Figure 1.4, a photograph. On its own as a photograph, it is a sign by physical connection with its object: the entities represented in the photograph have projected rays onto the film in the camera, thereby determining the visible patterns of light and shade on the print. In this case, the photograph is a type of index. However, if it is an index and hence a sign with its own existence, the object of the photograph must also be an existent object, which makes the photograph an informational sign, with a ‘double’ syntax (CP 2.309). This is how Peirce explains the informational capacity of the photograph: ‘A better example [of an 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*

Figure 1.4 At the Summer Palace

known, renders it a Dicsign' (CP 2.320): the section of rays, he says, constitutes the quasi-subject of the photograph's propositional structure while the print itself is its quasi-predicate. In this case we classify the image in Figure 1.4 as a dicent (indexical) sinsign (the photograph was a 'one-off' at a particular, never-to-be-repeated time and in a particular place). Note, however, that if we take the verbal caption into account, this more complex sign contains instances of legisigns, here a place-name, and the photograph plus caption is classified in this case, too, as the replica of a dicent indexical legisign.

(1.1) *Today we have naming of parts*

Finally, the symbol. Utterance (1.1) is a verbal sign, composed of indices, namely the deictics *Today* and *we*, the preposition *of*, the invisible present tense marker of the verb *have*, and the plural marker *-s*. In addition, there are three symbolic elements, the verbs *have* and *name*, and the noun *parts* – these are signs by convention if only because we have to learn what they mean. The utterance is an informational sign as it is composed of a double syntax associating a subject and predicate. In terms of the class to which it belongs, it is the replica of a dicent symbol and is therefore more complex than the two images with their captions.

Summary and discussion

In the light of the principles established in the preceding sections we can now draw up an inventory of the major characteristics of the grand logic, characteristics, therefore, of the philosophy of representation of 1903. Within this system the sign had a central function and position, being the determination of a single object and in its turn the determinant of a single interpretant, although the interpretant being conceived as a sign itself at this time determined a series of subsequent interpretant-signs. Together with his new science of phenomenology Peirce's logic of relations provided a set of criteria for the definition of the sign in the form of triadic relations composed of three correlates which Peirce identified as representamen, object and interpretant, a sign in this system being defined as a representamen with a mental interpretant, and also the unit of representation: 'I call that which represents, a representamen. A Representation is that relation of the representamen to its object which consists in it determining a third (the interpretant representamen) to be in the same relation to that object.' (R491, 1903).

To the original single 'first and most fundamental' trichotomy defining the icon, index and symbol Peirce added two more: first, the constitution of a separate sign-interpretant relational division to accommodate the term (now rheme), proposition (now dicisign) argument division which had earlier formed three subdivisions of the symbol in the original trichotomy of the mid-1860s; second, a division for the sign itself, distinguishing qualisign, sinsign and legisign in order of increasing complexity.

Peirce's phenomenology, which made the three categories of Firstness, Secondness and Thirdness that it defined independent of the logic, and by being 'outside' logic, were eligible to constitute the criteria for the subdivisions of the new, three-division typology. Thus by following a strict hierarchical rule according to which a subdivision could only be associated with a subdivision of equal or lower phenomenological complexity, the three divisions **S**, **S-O** and **S-I**, in that order, yielded ten classes of signs. Moreover, the principle of categorial degeneracy made it logically possible for a symbol to involve a 'sort of' index, and an index to involve a 'sort of icon', and therefore by transitivity, for a symbol, too, to involve at two removes a sort of icon, a principle which, as Jakobson first observed in a paper of 1965,¹⁹ underwrote the principle of language motivation and the theory of iconicity. What we conclude from this is the pervasive influence of the phenomenology on the theory of the sign at this

time, and how its principles seemed to hold what might seem disparate features of the theory together.

However, this logically perfect and complete system was soon to be expanded and made to coexist with another, more complex system for at least two major reasons. First, the ten classes, although fully functional, were a meagre haul for a logician wishing to identify as many types of signs as possible, and these were all that could be obtained from the three correlates of the triadic relation. Second, in the following extract from the *Minute Logic*, Peirce is describing an earlier version of the grand logic and its three branches: obsistent logic (critic), originalian logic (speculative grammar) and, finally, transuational logic (speculative rhetoric): 'Transuational logic, which I term *Speculative Rhetoric*, is substantially what goes by the name of methodology, or better, of *methodeutic*. It is the doctrine of the general conditions of the reference of Symbols and other Signs to the Interpretants which they aim to determine' (CP 2.93, 1902). As we shall see, development of the interpretant system from 1904 on, together with the less prominent role of the sign in what Peirce was to call 'semiosis', neutralized the notion that a sign could 'aim' to determine anything at all, and it was to cede its primacy as a determining agency to the object.

One indication of the intense intellectual activity to come concerning the sign and its two correlates can be gathered from the definitions researchers have found of the sign over the long period of Peirce's work on it, approximately from 1865 to 1911. Robert Marty, for one, found seventy-six different definitions in the period,²⁰ while John Deely, in an appendix to his presentation at the 2014 Charles S. Peirce Centennial Congress, amended this number to eighty-five.²¹ For Marty twenty-seven of the seventy-six definitions were recorded up to 1903, while thirty-four of Deely's eighty-five occur within the same period of almost forty years. This means that in each case almost two-thirds of the definitions were composed in the eight-year period *after* 1903. Allowing for the fact that for roughly fifteen years up to the mid-1880s, when Peirce came to reappraise the importance of the index, his research into signs took relatively little of his time, and also for the fact that several of the definitions from 1906 and 1907 come from single manuscripts (R793 in 1906 and R318 in 1907, for example), it is nevertheless clear that Peirce subjected the 1903 systems as described above to a very rigorous theoretical review. It is to this reappraisal of the systems that the following chapters are devoted.

Finally, readers wishing to turn to other accounts of the theoretical development of Peirce's thinking on semiotics in the period described above would do well to consult some or all of the following: Atkin (2010), an exhaustive

internet page in the *Stanford Encyclopedia of Philosophy* on the development of Peirce's conception of semiotics from beginning to end; Fisch (1986: 321–55), Freadman (1996), a chapter in a collection of Peirce papers delivered at the Charles S. Peirce Sesquicentennial Congress in Harvard in 1989; Litzka (1996), although now over twenty years old, is still the best all-round introduction to Peirce's signs-systems, and is especially interesting on the period described above; Houser (1992), a general overview of the material discussed in the second part of the chapter, written by a philosopher and not by a semiotician; Short (2007), a wide-ranging discussion of all aspects of Peirce's theory of signs and includes material from the later period. Note, in this respect, that they are mainly hybrid descriptions: they associate concepts from later statements with those made in 1903, a strategy which, for purposes of comparison, I have avoided in this chapter.