

Routledge Studies in American Philosophy

PEIRCE'S SPECULATIVE GRAMMAR

LOGIC AS SEMIOTICS

Francesco Bellucci



Peirce's Speculative Grammar

Peirce's Speculative Grammar: Logic as Semiotics offers a comprehensive, philologically accurate, and exegetically ambitious genetic account of Peirce's theory of speculative grammar. The book traces the evolution of Peirce's grammatical writings from his early research on the classification of arguments in the 1860s up to the complex semiotic taxonomies elaborated in the first decade of the twentieth century. It will be of interest to academic specialists working on Peirce, the history of American philosophy and pragmatism, the philosophy of language, the history of logic, and semiotics.

Francesco Bellucci is research fellow and adjunct professor at the University of Bologna. He was awarded the Peirce Society Essay Contest Prize in 2015.

Routledge Studies in American Philosophy

Edited by Willem deVries, University of New Hampshire, USA and
Henry Jackman, York University, Canada

- 1 **Intentionality and the Myths of the Given**
Between Pragmatism and Phenomenology
Carl B. Sachs
- 2 **Richard Rorty, Liberalism and Cosmopolitanism**
David E. McClean
- 3 **Pragmatic Encounters**
Richard J. Bernstein
- 4 **Toward a Metaphysics of Culture**
Joseph Margolis
- 5 **Gewirthian Perspectives on Human Rights**
Edited by Per Baubn
- 6 **Toward a Pragmatist Metaethics**
Diana B. Heney
- 7 **Sellars and Contemporary Philosophy**
Edited by David Pereplyotchik and Deborah R. Barnbaum
- 8 **Pragmatism and Objectivity**
Essays Sparked by the Work of Nicolas Rescher
Edited by Sami Pihlström
- 9 **The Quantum of Explanation**
Whitehead's Radical Empiricism
Randall E. Auxier and Gary L. Herstein
- 10 **Peirce on Perception and Reasoning**
From Icons to Logic
Edited by Kathleen A. Hull and Richard Kenneth Atkins
- 11 **Peirce's Speculative Grammar**
Logic as Semiotics
Francesco Bellucci

Peirce's Speculative Grammar

Logic as Semiotics

Francesco Bellucci

First published 2018
by Routledge
711 Third Avenue, New York, NY 10017

and by Routledge
2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2018 Taylor & Francis

The right of Francesco Bellucci to be identified as author of this work has been asserted by him in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

Library of Congress Cataloging-in-Publication Data

Names: Bellucci, Francesco, 1983– author.

Title: Pierce's speculative grammar : logic as semiotics /
by Francesco Bellucci.

Description: 1 [edition]. | New York : Routledge, 2017. |

Series: Routledge studies in American philosophy ; 11 | Includes bibliographical references and index.

Identifiers: LCCN 2017018909 | ISBN 9780415793506
(hardback : alk. paper)

Subjects: LCSH: Peirce, Charles S. (Charles Sanders), 1839–1914. |
Grammar, Comparative and general. | Logic. | Semiotics.

Classification: LCC B945.P44 B366 2017 | DDC 160.92—dc23

LC record available at <https://lccn.loc.gov/2017018909>

ISBN: 978-0-415-79350-6 (hbk)

ISBN: 978-1-315-21100-8 (ebk)

Typeset in Sabon
by Apex CoVantage, LLC

Contents

<i>Acknowledgments</i>	ix
<i>Abbreviations</i>	xi
Introduction	1
1 Logic as Objective Symbolistic	15
2 The <i>Logic</i> of 1873	79
3 The Johns Hopkins Years	99
4 <i>How to Reason</i>	127
5 The Schröder Reviews and the Logical Graphs	149
6 The <i>Minute Logic</i>	183
7 The <i>Syllabus</i>	215
8 <i>Grammatica speculativa</i> 1904–1908	285
9 Confines of Semiotics	353
<i>References</i>	365
<i>Index</i>	377

8 *Grammatica speculativa* 1904–1908

Peirce's *Syllabus* of 1903 represents both the culmination of a forty-year research into the nature and the classification of signs, and the beginning of a new phase in the development of his taxonomic investigations. Before the *Syllabus*, the most important innovation of speculative grammar had been the decision, taken in the *Minute Logic* of 1902, to view the two semiotic trichotomies (<icon, index, symbol> and <rheme, dicisign, argument>) not as determining classes of signs but as determining parameters that classify signs. I have referred to this innovation as the "first reform" of speculative grammar. The first reform makes it necessary to determine the compossibility of parameters. Thus, after the first reform, the classification of signs becomes a *twofold* enterprise: first, trichotomies are to be determined which specify the semiotic parameters for the classification; second, the classes of possible signs are to be determined on the basis of rules of combination of the parameters, that is, rules of semiotic compossibility. The rules of the *Minute Logic* only concern the two trichotomies treated therein, and state that an icon can only be a rheme, while an argument can only be a symbol. In *NDTR*, the second and final version of the grammatical chapter of the *Syllabus*, a second innovation was made. This "second reform" of speculative grammar consisted in the addition of a third trichotomy (<qualisign, sinsign, legisign>) to the previous two (<icon, index, symbol> and <rheme, dicisign, argument>). The *Syllabus* had therefore to generalize the rules of semiotic compossibility of the *Minute Logic* to account for the expanded system of parameters presented therein: a qualisign can only be an icon, and an icon a rheme, while an argument can only be a symbol, and a symbol a legisign. By applying these rules, Peirce can obtain the ten classes of signs presented at the end of *NDTR*. As mentioned, these rules can be generalized to a system of any number of basic trichotomies. Peirce proposes a further generalization of the rules in *NDTR*, but as we have seen (*supra*, §7.3.4), the generalized rules are unable to determine the ten possible combinations that Peirce has in mind. Peirce would come to a formal and correct statement of the generalized rules of semiotic compossibility in a 1908 letter to Lady Welby: "It is evident that a possible [first] can determine nothing but a Possible [first], it is equally so that a Necessitant [third] can be determined

by nothing but a Necessitant [third]” (SS 84). These two rules (which I have referred to as R1 and R2, respectively) can also be summarized by saying that a certain combination of semiotic parameters is possible if its elements satisfy the following partial ordering: first element \geq second element \geq third element.

The new phase of Peirce’s grammatical investigations is inaugurated by a third important innovation, which I shall call the “third reform” of speculative grammar. This consisted in two parallel distinctions. First, Peirce now distinguishes an immediate from a dynamic object of a sign. Second, he distinguishes three different kinds of interpretants. This innovation was introduced sometime in 1904, and would constitute the basis for Peirce’s subsequent taxonomic schemes. The schemes that follow the third reform of speculative grammar can be grouped into three categories: first, the schemes based on six trichotomies (1904–1905); secondly, the schemes based on ten trichotomies elaborated in 1905–1906; thirdly, the scheme based on ten trichotomies elaborated at the end of 1908. Of the two problems that the classification of signs raises after the first two “reforms”—first, trichotomies whose members specify the semiotic parameters are to be determined; second, the classes of possible signs are to be determined by means of rules of semiotic compossibility—only the first is successfully addressed and resolved in the taxonomic investigations of 1904–1908. An attempt to address the second problem is made, first in 1904 and then in 1908, by applying the rules of semiotic compossibility successfully employed in the *Syllabus* (R1 and R2) to pairs of trichotomies at a time. But the problem of the *general* applicability of R1 and R2, depending as it does on the possibility of linearly ordering in a satisfactory manner all the trichotomies, was destined to remain unresolved, and Peirce’s classification of signs, consequently, incomplete.

8.1 Six trichotomies

The third reform of speculative grammar, i.e., the doctrine that a sign has two objects and three interpretants, emerges in a 1904 letter to Lady Welby. In a draft of the letter Peirce writes:

A sign has two objects, the object as it really is independently of being signified or represented, and the object as it is represented to be. So there are three interpretants; the interpreting sign as it is in itself, the interpretant as it is determined to correspond to the object, and the interpretant as the sign means it to be determined.

RL 463 ISP 28

Peirce then declares that signs “may be divided in three ways” (*ibid.*). However, what he actually does is to present *six* divisions, i.e., six trichotomies, of signs. Three of them correspond to the three trichotomies of the *Syllabus*,

but the other three are new entries. In the letter actually sent Peirce makes it clear that the divisions are six, because they take into account the *double* nature of the object and the *triple* nature of the interpretant:

a sign has two objects, its object as it is represented and its object in itself. It has also three interpretants, its interpretant as represented or meant to be understood, its interpretant as it is produced, and its interpretant in itself. Now signs may be divided as their own material qualities, as to their relations to their objects, and as to their relations to their interpretants.

SS 32

In the first place, considered in itself a sign is either a qualisign, a sinsign, or a qualisign. This is the trichotomy that first makes its appearance in R 800 and in *NDTR* (cf. *supra*, §7.3). In the second place, considered in reference to its *dynamic* object a sign is either an icon, an index, or a symbol. This is the division which in *SLC* was drawn according to the sign's "significant character" or "representative quality," and which in *NDTR* was framed in terms of the sign's relation to the object: an icon refers to the object in virtue of its own qualities; an index refers to the object in virtue of being connected with it; a symbol refers to the object because it is interpreted as doing so. It now becomes clear that the object meant in that context is what now Peirce calls the dynamic object of the sign, the object *tout court*, the "object in itself," the object "as it really is independently of being signified or represented." Besides the sign's relation to the dynamic object, Peirce now considers the sign's relation to the immediate object as a level of analysis by means of which a further trichotomy of signs can be obtained.

At the same time, the sign's relation to the interpretant, which was the source of the division of signs (and not only of symbols) into rhemes, dicisigns, and arguments in the *Syllabus*, is now the source of three further trichotomies. Peirce now distinguishes the "immediate," the "dynamic," and the "rational" or "signified" interpretant of a sign. It is this latter interpretant that is the source of the division of signs into rhemes, dicisigns, and arguments, i.e., of the division that in the *Syllabus* was made according to the interpretant *tout court*.

We have seen in the previous Chapter that something like a division of interpretants was already implied in the definition of "sign" with which Peirce opens the final draft version of *SLC*. The sign is there said to act as the relate of two triadic relations at once. In the former triadic relation, the interpretant is simply another sign that represents the object that the sign itself represents; in the latter triadic relation the interpretant represents *that* the sign represents the object. The general reason of this, we saw, is that "the sign not only determines the interpretant to represent [. . .] the *object*, but also determines the interpretant to represent the sign" (RL 463 ISP 100). This division is also implied by Peirce's usual contrast between the sign that separately

represents an object (the proposition) and the sign that separately represents an interpretant (the argument). In *one* sense, the argument does, while the proposition does not, determine an explicit interpretant. As Peirce sometimes says, a proposition “leaves its interpretant to be what it may,” in the sense that it does not explicitly show what other proposition can be inferred from it; a proposition does separately represent its object, but does not separately represent its interpretant. By contrast, an argument does separately represent an interpretant. One may also say that the interpretant of a proposition is implicit (a proposition is an argument only *in potentia*), that of an argument explicit. But in *another* sense, both the proposition and the argument have an interpretant, because each is represented by the interpretant to be the sign which each is. The proposition has to be *interpreted* as a proposition and the argument as an argument. In the first sense, the interpretant is another sign of the object. In the second sense, the interpretant is the sign *that* the sign is a sign of the object. This distinction, which remains implicit in the *Syllabus*, is explicitly built into the taxonomy in 1904.

8.1.1 Immediate objects and quantification

The distinction between the immediate and the dynamic object of a sign emerges in 1904. The nearest Peirce came to some such distinction before 1904 was in *SLC* (cf. *supra*, §7.1). There Peirce had distinguished between the primary object of the dicisign, which is the object that the dicisign represents, and its secondary object, which is the relation between the dicisign and the dicisign’s primary object; the dicisign’s secondary object is thus the primary object of the dicisign’s interpretant. The primary object is the object external to the dicisign, which the dicisign represents; the secondary object is the way the dicisign is represented by its interpretant to represent its primary object. Stjernfelt (2014, 68, 97–100) has suggested that the 1903 distinction between the primary and the secondary object of a dicisign can be seen as a prefiguration of the 1904 distinction between the immediate and the dynamic object of a sign. However, the two distinctions cannot overlap, because the immediate object is not the representation *that* the sign is a sign (in the case of dicisigns, an index) of the object; the immediate object is, as we shall now see, that *part* of a sign that indicates the dynamic object. Therefore, while it is true that the sign’s “primary object” of 1903 matches the sign’s “dynamic object” of 1904, because both are simply the object *tout court* or in itself, it would be misleading to see the sign’s “secondary object” of 1903 as corresponding to the sign’s “immediate object” of 1904. That the two distinctions are theoretically independent of one another should also be suggested by the fact that the distinction between the primary and the secondary object completely disappears from *NDTR*, in which there is no talk of more than *one* object. The three trichotomies of *NDTR* come from the sign’s relation to itself (<qualisign,

sinsign, qualisign>), to its *unique* object (<icon, index, symbol>), and to its interpretant (<rheme, dicensign, argument>).

It is in the draft of the 1904 letter to Welby that Peirce presents for the first time, though very succinctly, the trichotomy of signs that results from their reference to their immediate objects: “In reference to their immediate objects, signs are either signs of qualities, signs of existents, or signs of general laws” (RL 463 ISP 29). Unfortunately, neither in the letter actually sent nor in the draft Peirce explains in what sense the “immediate object” of a sign is “represented or signified” by the sign, and in what sense the relation of a sign to its immediate object establishes the trichotomy into “signs of qualities,” “signs of existents,” and “signs of general laws.”

The same cryptic characterization of the trichotomy is found in a philosophical autobiography that Peirce sketched for Mattoon Curtis in October 1904, in a letter to the Italian philosopher Mario Calderoni written in May 1905, and in a paper titled “Notes on Portions of Hume’s ‘Treatise of Human Nature,’” also dating from 1905. Just as in the 1904 letter to Welby, in these pieces the new scheme of six trichotomies is presented. Here are the relevant passages from the autobiographical sketch written for Curtis:

Logic is by P. made synonymous with semeiotic, the pure theory of signs, in general. Its first part, speculative grammar, corresponding to stecheology (Elementarlehre,) classifies and describes signs. A sign is anything, A, in a relation, *r*, to something, B, its *object*, this relation, *r*, consisting in fitness to determine something so as to produce something, C, the *interpretant* of the sign, which shall be in the relation *r* to B, or at least in some analogous relation.

RL 107 CSP 24 ISP 25

[. . .] it is necessary to distinguish between the object as it is represented by the sign, and the object as it is in itself. It is also necessary to distinguish between 1st, the interpretant as it is intended to be determined by the sign, 2nd, the interpretant as it is related to the object, and 3rd, the interpretant as it is irrespective of the peculiarities of the sign and the object. Signs are divided by trichotomy in six partially independent ways, in one way, according to their own mode of being, in two ways according to their relation to their objects, and in three ways according to their relation to their interpretants.

RL 107 ISP 31–32

Upon these considerations are founded six trichotomic divisions of signs (of which only two were recognized in 1867). For in the first place a sign may, in its own firstness, either be a mere idea or quality of feeling, or it may be a “sinsign[”], that is, an individual existent [. . .], or it

may (like a word) be a general type (“legisign”) to which existents may conform. In the second place a sign may, in its secondness to its object as represented, (according to the statement of 1867, which may have indirectly influenced Stout’s psychological division of signs) either, as an “Icon,” be related to that object by virtue of a character which belongs to the sign in its own firstness, and which equally would belong to it though the object did not exist, or, as an “Index,” may be related to its object by a real secondness, such as a physical connection, to it, or it may, as a “[S]ymbol,” be related to its object only because it will be represented in its interpretant as so related, as is the case with any word or other conventional sign, or any general type of image regarded as a schema of a concept. In the third place, a sign may, in its secondness to its object as the latter is in its own firstness, be a sign of an idea or quality, or of an individual existent (including an event), or of a general type. In the fourth place, a sign may, in its thirdness to its object for its interpretant as the latter is “meant” to be by the sign, either determine that interpretant [*abandoned*]

R 914 CSP 6–8

And here is how the trichotomy is presented in the letter to Calderoni:

A sign is something which is Secundan to an Object and determines an Interpretant to be correspondingly Secundan to the same Object. But we can distinguish two Objects; the object as it is represented to be, and the object as it is. [. . .] In their relations to their objects, signs are divisible in two ways, according as we have in view the object as it is or the object as represented. The former division is merely into signs of possibilities, signs of existents, and signs of types.

RL 67 ISP 30–32

In the “Notes on Hume” the distinction is again drawn between “the object as it is in itself (the Monadic Object), and the object as the sign represents it to be (the Dyadic Object)” (R 939 ISP 43). Peirce then continues:

the division of signs according to their Monadic Objects is simply into 1st, Signs of Objects whose Being is Monadic (signs of qualities, etc.), 2nd, Signs of Objects whose Being is Dyadic (signs of existents, past events, etc.), 3rd, Signs of Objects whose Being is Triadic (Signs of Laws, Types, etc.). Names: *Monadosemeion*, *Dyadosemeion*, *Triadosemeion*.

R 939 ISP 48

A “monadosemeion” is a sign of quality, a “dyadosemeion” a sign of existence, and a “triadosemeion” a sign of law. Unlike in the 1904 letter to Welby, in the autobiographical sketch for Curtis, in the letter to Calderoni,

and in the “Notes on Hume” this division is drawn with regard to the sign’s relation to “the object in itself” (the “monadic” object in the “Notes on Hume”), while it is the division of signs into icons, indices, and symbols that now depends on the sign’s relation to the “object as represented” (the “dyadic” object in the “Notes on Hume”). But this interchange is only temporary, as we shall see in a moment.

Both in the letter to Welby and in the “Notes on Hume,” Peirce attempts to specify what the relations between the new trichotomy and the old ones are. As explained in the previous Chapter, the rules of semiotic compossibility (R1 and R2) depend on the fact that the trichotomies are linearly ordered. In the letter to Welby, Peirce proposes the rule that “a qualisign cannot be a sign of a general law” (RL 463 ISP 29). It is hard to see how this rule could be an instance of either R1 or R2, however. In the “Notes on Hume” the following rules are proposed: “An Icon can only be a Monadosemeion. A Triadosemeion can only be a Symbol, not an Index” (R 939 ISP 48). If the rule that an icon can only be a monadosemeion is to be an instance of R1, and if the rule that a triadosemeion can only be a symbol is to be an instance of R2, then the trichotomy according to the dyadic object (object as represented) has to precede in order the trichotomy according to the monadic object (object in itself). However, none of these suggestions as to the relative ordering of the two couples of trichotomies is pushed further in the subsequent classifications. This problem will be addressed again in 1908.

More important than the question of whether and how the new trichotomy interacts with the old ones (i.e., the question of what relative ordering of the trichotomies allows the straightforward application of R1 and R2) is the question of what on earth the immediate object of a sign is. To this question the four texts examined so far (the 1904 letter to Welby, the 1904 autobiographical sketch for Curtis, the 1905 letter to Calderoni, and the 1905 “Notes on Hume”) give no clear answer. The only thing that is clear is that the new distinction between the two objects of a sign, or between the two aspects under which the sign’s object can be regarded, is motivated by the classification of signs. The distinction has a grammatical or taxonomic purpose: it is needed to classify signs. But we do not yet see what those signs are which are thereby classified.

Proceeding chronologically, some clues come from a remark noted in the *Logic Notebook* in June 1905: “I use the terms *immediate* and *direct*, not according to their etymologies but so that to say that A is *immediate* to B means that it is present in B” (R 339 DDR 243v). To be “immediate to” means to be “present in”: to say that an object O is immediate to a sign S is to say that the object O is *present* in the sign S. The immediate object is present in the sign, while the dynamic object is *not* present in the sign in the same sense. But “to be present in a sign” can mean nothing else than “to be part of a sign.” Thus, it seems that the immediate object is part of the sign in a sense in which the dynamic object is not.

The taxonomic scheme sketched in the *Notebook* on July 7, 1905, dispels the fog: the division “according to the immediate object” is a division of signs according to their “quantity”:

[A sign] has two Objects, the *immediate*, to which it is *degenerately* Secundan, the *dynamic*, to which it is *genuinely* Secundan. [. . .] In its relation to its Immediate Object, it is Vagosign if it represents that Obj[ect] as possible, [it is] Actisign [if it represents that Object as] existent, [it is] General [if it represents that Object as] law.

R 339 DDR 247r

A sign in relation to its immediate object is either vague, actual, or general. This is the traditional division of propositions into particular, singular, and universal propositions. It is found in a logic book that Peirce knew very well, Kant’s first *Critique*: Kant’s table of judgments, upon which he is to ground the table of categories by a metaphysical deduction, includes a division of judgments according to their Quantity: Universal, Particular, and Singular (*KrV* A70/B95). This is in fact a typical division of propositions which can be found, for example, in Hamilton and Mill.¹

This division is presented in “Καὶνὰ στοιχεῖα,” probably written in 1904, and in some of its earlier drafts, without any appeal to immediate objects being explicitly made:

The symbols are of three classes having different properties, which three classes may be designated as the *singular*, the *vague*, and the *general*.

R 5 CSP 2

If a sign is apt to represent many things, the option as to what single thing it shall be taken to represent may be reserved by the utterer of it, to whom it naturally belongs; in which case it may be said to be used *vaguely*, or *not definitely*. The utterer may, however, transfer this option to the interpreter; in which case the sign may be said to be used *generally*, or *not individually*. Obviously, the option cannot, in the same respect, at once lie with both parties. Hence, a sign cannot be at once vague and general in the same respect. It may, however, be both definite and individual; and in that case may be said to be used *singularly*.

R 9 CSP 2–3

A sign is either definite or indefinite, individual or non-individual. A definite sign is one to which the principle of contradiction applies. Thus “Some man” is indefinite, for contradictory statements can both be true of it: “Some man dies, and some man does not die.” A particular proposition is one that is indefinite in respect to its subject, i.e., its subject is an indefinite sign. Thus “Some man is poor” is a particular proposition. An individual

sign is one to which the principle of excluded middle applies. Thus “Any man” is non-individual, for it may be that neither “Any man dies” nor “Any man does not die” is true. A universal proposition is one that is non-individual with respect to its subject, i.e., its subject is non-individual. Thus “Any man dies” is a universal proposition. A sign cannot be both indefinite and non-individual, i.e., a proposition cannot be particular and universal with respect to one and the same subject. It can be particular and universal with respect to *different* subjects. This is the case of multiply quantified propositions like “Any Catholic adores some woman,” which is universal with respect to Catholics and particular with respect to women. However, a proposition can be both definite and individual with respect to the same subject, in which case it is said to be singular.

The same can also be stated in game-theoretical terms.² A particular proposition is one in which the liberty of choosing the singular subject out of the universe of discourse that *verifies* the proposition is with the utterer of the proposition, while a universal proposition is one in which the liberty of choosing the singular subject out of the universe of discourse that *falsifies* the proposition is with the interpreter of the proposition. Since the utterer seeks to verify and the interpreter to falsify the proposition, the former can be called the defender and the latter the opponent of the proposition. If no liberty of choice is left to either party, the proposition is singular.³

The terminology of “vague,” “singular,” and “general” signs is first introduced by Peirce in the *Logic Notebook* entry of July 7, 1905, quoted above. These names substitute those used in the letters to Welby and to Calderoni and in the autobiographical sketch for Curtis (“sign of quality,” “sign of existent,” “sign of law”), and those used in the “Notes on Hume” (“monadosemeion,” “dyadosemeion,” “triadosemeion”). On July 8, 1905, Peirce so explains: “The *Vagosign* should be a sign that represents its object as simply *such and such*. The *Proper* represents its object as *compelled* (or as an *event*) (or in some other way *Secundan*). The *General* represents its object as an *aspect* or as considered etc.” (R 339 DDR 248r). Notwithstanding the constant terminological evolution to which we assist, and notwithstanding the obscurity of some of Peirce’s explanations, it is at least clear that this trichotomy, initially (in the 1904 letter to Welby) derived from the sign’s relation to the immediate object, then (in the Calderoni letter, in the Curtis autobiography, and in the “Notes on Hume”) ascribed to the object “in itself” or, which is the same, the “monadic object,” and finally (in the July 1905 entries of the *Logic Notebook*) attributed again to the sign’s relation to the immediate object, is the taxonomic instrument by means of which Peirce can incorporate into his classification of signs the traditional distinction between particular (or vague), singular, and universal (or general) propositions. The immediate object is the level of analysis at which the dimension of *quantification* is taken into account. In other words, the immediate object is the manner in which the dynamic object is *quantitatively given* (i.e., *quantified*) within a propositional context.

In one of the drafts of “The Basis of Pragmaticism,”⁴ probably written during summer or early autumn 1905, Peirce furnishes a further important clarification concerning the nature of the immediate object (and also concerning the immediate interpretants, on which we shall have to return in the next section):

when we speak of the *object* of a sign we may mean the object as it is in its independent being or as we may call it the *dynamic* object as something which acts upon the sign and determines it or, on the other hand, we may mean the *immediate* object, the object as the sign represents it. For some signs separately represent their objects. Every proposition does so. So when we speak of the interpretant of a sign, we may mean the *rational* interpretant which fairly and justly interprets it, or we may mean the *dynamic* interpretant, or the way in which the sign will actually be interpreted in the mind of the person addressed, or, in case the sign be of such a nature as necessarily to produce an interpretant we may mean the *immediate* interpretant, or that which the sign itself represents to be its intended interpretant. For some signs do separately represent their own interpretants, as any argument, for example, generally does.

R 284 CSP 54–55

The immediate object is the “object as the sign represents it,” that is to say, the object which *those signs which separately represent an object* do in fact represent. The sentence “for some signs separately represent their objects” is crucial here. Not all signs separately represent an object: rhemes do not; only propositions and proposition-like signs (dicsigns) do, because these signs have a part that indicates the object of which the other part says something. Thus, only signs of this sort can have an immediate object. For the immediate object is the “object as the sign represents it,” and only proposition-like signs independently represent an object, and thus can be divided according to the way they represent the immediate object. In like manner, not all signs separately represent an immediate interpretant, but only arguments do.

This perfectly fits with the fact that the trichotomy “according to the immediate object” is a trichotomy of *propositions*. There is no reason not to trust Peirce that “the distinctions of *vague* and *distinct*, *general* and *individual* are propositional distinctions” (R 517 CSP 37). Thus in the “Basis,” the following characterization of the members of the triplet is given:

Class 1. Termed *Vague Sign*. The sign represents its Immediate Object in the logically formal character of the Priman, which is Indefiniteness.

Class 2. Termed *Singular Sign*. The sign represents its Immediate Object in the logically formal character of the Secundan, which is Definite Individuality.

Class 3. Termed *General Sign*. The sign represents its Immediate Object in the logically formal character of the Tertian, which is Distributive Generality.

R 284 ISP 67

A vague sign is the subject of a particular or existentially quantified proposition, like “Some man” in “Some man is wise.” The “man” is indefinite, i.e., vague, because the principle of contradiction does not apply to it. A singular sign is the sign of an individual in a proposition, like “Socrates” in “Socrates is wise.” Both the principle of contradiction and the principle of excluded middle apply to it. A general sign is the subject of a general proposition, like “Any man” in “Any man is wise.” The term “man” is, as the medieval doctors used to say, “distributed” over a whole collection of individuals. It is general because the principle of excluded middle does not apply to it.

The *six* basic trichotomies of semiotic parameters on which Peirce has been working from October 1904 to July 1905 are increased in October 1905 to the number of *ten*. It is to this enlarged system of basic trichotomies that we now turn. However, it has to be remarked that notwithstanding the greater complexity of the scheme of ten trichotomies, the division “according to the immediate object” into vague, singular, and general signs will remain a constant item of Peirce’s classifications until December 1908 (see *infra*, §8.4.2).

8.1.2 *Interpretants and assertion*

“We can express a thought without asserting it,” wrote Frege in 1906 (Frege 1979, 185). Peter Geach (1965) has called the thesis that “a proposition may occur in discourse now asserted, now unasserted, and yet be recognizably the same proposition” the “Frege point,” because Frege was the first and the clearest in making the point. The Frege point, Geach argued, is something we need in order to understand *modus ponens*.

- P1 If p , then q
- P2 But p
- C Therefore q

In order to understand an argument of this form we need to assume that it is one and the same proposition p that occurs asserted in P2 but not in P1. The reason is that if p occurred asserted in P1, then P2, which simply asserts p , would contain nothing not contained in P1, and would therefore be redundant. On the other hand, if the p that occurs asserted in P2 were not in some sense “the same” as the p that occurs in P1, the argument would be vitiated by equivocation. Thus, in order to reconcile these two facts, we need to assume that while p is the same proposition in both premises, yet it occurs asserted in one but unasserted in the other. And thus the point that a proposition may occur in logical discourse now asserted, now unasserted, is established.⁵ When faced with the clearness and perspicuity of Frege’s

distinction between “the case where a thought is merely expressed without being put forward as true and the case where it is asserted” (Frege to Peano, 29 September 1896, in Frege 1980, 117), one wonders whether Peirce can hold the candle to Frege on this matter. Did Peirce have a theory of assertion, and if yes, what theory of assertion was it?

As we know from Chapters 4 and 5, in his logical writings and projected logic books of the 1890s, Peirce spends a good deal of time discussing the semiotic anatomy and physiology of the assertion, whose scientific description is the principal task of speculative grammar. At this time, Peirce seems not quite to distinguish proposition and assertion: thanks to their semiotic structure, propositions *assert*, and therefore the analysis of the proposition is equivalent to the analysis of assertion. Of course, the *grammatical* question of the nature of the sign that can make an assertion should not be confused with the *psychological* question of what mental states or attitudes the making of an assertion involves. The act of assertion is a totally different thing from the signification of a proposition. Thus Peirce says in the Harvard Lectures of 1903:

We thus see that the act of assertion is an act of a totally different nature from the act of apprehending the meaning of the proposition & we cannot expect that any analysis of what assertion is or any analysis of what *judgment* or *belief* is, if that act is at all allied to assertion, should throw any light at all on the widely different question of what the apprehension of the meaning of a proposition is.

R 301 ISP 22–23

The grammatical question concerning the nature of the propositional sign is not to be based upon the psychological explanation of what assertion consists in. If assertion is considered as something that a proposition does, then its analysis simply corresponds to the analysis of the proposition. But if assertion is considered on a par with the mental judgment (“if that act is at all allied to assertion”), then it simply cannot, given Peirce’s anti-psychologism, furnish any base to the analysis of the proposition.⁶ Peirce was to discover soon that this way of putting the matter is ultimately unsatisfactory.

In this respect, even though the *Syllabus* represents a development and systematization of the grammatical doctrine of the 1890s, the definition of the dicisign there given (“a sign which is represented by its interpretant as an index of its object”) is unable to capture the difference between assertion and asserted proposition. In *SLC* the definition of dicisigns is said to hold “quite irrespective of their being asserted or asserted to” (R 478 CSP 75). The grammatical difference that the definition is intended to capture is that between a dicisign and a rheme, as well as that between a dicisign and an argument, not that between a dicisign and its assertion. In *NDTR* Peirce declares:

the logician, as such, cares not what the psychological nature of the act of judging may be. The question for him is: What is the nature of the sort of sign of which a principal variety is called a proposition, which is the matter upon which the act of judging is exercised. The proposition need not be asserted or judged. It may be contemplated as a sign capable of being asserted or denied. This sign itself retains its full meaning whether it be actually asserted or not.

R 540 CSP 141

The concept of assertion is assimilated to that of judgment. As such, it is not relevant in the grammatical analysis of the proposition. The *Syllabus* doctrine provides a formidable framework for the semiotic definition of logical objects. But the distinction between proposition and assertion seems to find no place in that framework.

With “Καινά στοιχεία,” probably written in 1904, Peirce seems to have moved toward a more sophisticated doctrine:

A *proposition*, as I have just intimated, is not to be understood as the lingual expression of a judgment. It is, on the contrary, that sign of which the judgment is one replica and the lingual expression another. But a judgment is distinctly *more* than the mere mental replica of a proposition. It not merely *expresses* the proposition, but it goes farther and *accepts it*. I grant that the normal use of a proposition is to affirm it; and its chief logical properties relate to what would result in reference to its affirmation. It is, therefore, convenient in logic to express propositions in most cases in the indicative mood. But the proposition in the sentence, “Socrates est sapiens,” strictly expressed, is “Socratem sapientem esse.” The defense of this position is that in this way we distinguish between a proposition and the assertion of it; and without such distinction it is impossible to get a distinct notion of the nature of the proposition. One and the same proposition may be affirmed, denied, judged, doubted, inwardly inquired into, put as a question, wished, asked for, effectively commanded, taught, or merely expressed, and does not thereby become a different proposition.

R 517 CSP 40–41

Peirce here clearly distinguishes between expressing a propositional content and making a propositional content the object of a speech act. The distinction could not be clearer. The act of assertion is not simply on a par with the mental judgment; it is also to be considered as a notion on the same level as all the possible speech acts that may have the content of the judgment (proposition) as object. The *Syllabus* was right to reject any distinction between dicisign and mental judgment as irrelevant for logical purposes; but the *act* of assertion has to be taken into account if only for the purpose of

isolating the propositional content from it. Peirce explains that a sentence in the indicative mood, conventionally associated to assertoric force, is already the representation of a possible use of its propositional content. But strictly speaking, in order to make it clear that the same propositional content can be the object of speech acts other than assertion, one should consider a proposition that is not asserted as an “incomplete symbol” (*Socratem sapientem esse*) that reaches completion in the speech act performed with it (*Socrates est sapiens*). Only the speech act, the assertion, is a “complete symbol” (R 517 CSP 42 ISP 107). Here is an earlier draft of the passage just quoted:

The proposition “Socrates is wise” is merely the sign of “— is wise” having for an object the object well-known to us as Socrates. Its most exact expression is “Socrates sapientem esse.” This form of expression has, too, the advantage of marking *the essentially fragmentary character of the proposition*.

R 517 CSP 37 ISP 102, emphasis added

The unasserted proposition is fragmentary, and therefore more like a composite rheme than like a proposition. It has the structure of a complete proposition (what Peirce calls a “medad”) but it lacks assertoric force.

It is significant that the allusion to the fragmentary nature of the unasserted proposition is dropped in the final version of “Καινά στοιχεία.” For the thesis that unasserted propositions are fragmentary leads one to conclude, on the basis of the taxonomy of the *Syllabus*, that then unasserted propositions are rhemes, not dicisigns, which seems to be a consequence that Peirce would rather wish to avoid. Therefore, while he has arrived at the distinction between the propositional content and the variety of speech acts of which that content may be the object, yet he is still unable to account for such a distinction with the grammatical tools provided by the *Syllabus*, for those tools were intended to do the job of differentiating between what traditional logic calls terms, propositions, and arguments, not that of distinguishing assertion and propositional content. According to the taxonomy of the *Syllabus*, both a proposition and its assertion would count as dicisigns. Some revision of the grammatical edifice was therefore in order.

Peirce needs to distinguish between propositional content and assertion, but the taxonomical instruments of the *Syllabus* are unable to bring such distinction to the fore. The first obvious move would be to see whether the taxonomy might not be so enriched as to capture the distinction in question. This is T. L. Short’s brilliant intuition: the distinction between the speech act of assertion and the proposition asserted has to be framed in terms of the classification of signs and captured by a trichotomy of a *different order*. And in order to embody new trichotomies in the taxonomy, Peirce needs to draw further distinctions than he has done so far. This is accomplished by

the third reform of speculative grammar, and is first announced in the letter to Lady Welby of October 1904.

As we know, the division into rhemes, dicisigns, and arguments is not a division of symbols only. After the first reform of speculative grammar, actuated in the *Minute Logic*, this has become a division of all signs. In the 1904 letter to Welby, this division becomes the division “in regard to the signified interpretant”:

In regard to their signified interpretants signs are either Rhemes, Dicents, or Arguments. [. . .] The triad Rheme-Dicent-Argument is a substitute for the usual triad, Term, Proposition, or judgment, Argument or “Schluss”; or Simple Apprehension, Judgment, and Reasoning. In the first place, the usual triad is a division of *symbols* alone. But I wish to divide signs in general.

RL 463 ISP 29

With the opportune limitations, also icons and indices can be rhemes and dicisigns (while arguments can only be symbols). Thus Peirce put in the class of rhemes all “words and phrases not amounting to propositions, or any signs which are not meant in themselves to assert anything. Thus, a pointing finger is a *rheme*; so is a geometrical figure. Indeed every icon is a rheme. An index may or may not be a rheme. In so far as it is a sign of the presence of its object it is not a rheme” (RL 463 ISP 29–30). An icon can only be a rheme, but an index can be a rheme, like proper names (indexical rhematic legisigns), or a proposition, like the weathercock (indexical dicent sinsign) or the street-cry (indexical dicent legisign). A rheme can either be part of a dicisign (like rhematic symbols, which are parts of dicent symbols) or not (a geometrical picture is not, in itself, part of a dicisign). The general definition of the rheme is “a sign which in its signified interpretant is represented as if it were a quality” (RL 463 ISP 30). A dicisign or dicent can be an index or a symbol. An ordinary proposition is a dicent symbol, a weathercock a dicent index. An argument can only be a symbol, because an argument inevitably refers to a general scheme of arguments, i.e., its object is a general law, and symbols alone can represent general objects. All of this is known from the *Syllabus*.

However—Peirce announces to Lady Welby in October 1904, in neat contrast with all of his previous analyses—a dicent is *not* an assertion:

A dicent is not an assertion, but is a sign *capable* of being asserted. But an assertion is a dicent. According to my present view (I may see more light in future) the act of assertion is not a pure act of signification. It is an exhibition of the fact that one subjects oneself to the penalties visited on a liar if the proposition asserted is not true. [. . .] Holding, then, that a Dicent does not assert, I naturally hold that an Argument need

not actually be submitted or urged. I therefore define an argument as a sign which is represented in its signified interpretant not as a Sign of the interpretant (the conclusion) [for that would be to urge or submit it] but *as if* it were a Sign of the Interpretant or perhaps as if it were a Sign of the state of the universe to which it refers, in which the premises are taken for granted. I define a dicent as a sign represented in its signified interpretant *as if it were* in a Real Relation to its Object. (Or as being so, if it is asserted). A rheme is defined as a sign which is represented in its signified interpretant *as if it were* a character or mark. (or as being so).

SS 34

The “signified interpretant” distinguishes signs that function as rhemes from signs that function as propositions. But it does not distinguish between asserted and unasserted propositions. In the *Syllabus*, only one kind of interpretant is needed to differentiate between rhemes, dicisigns, and arguments. But if Peirce wants his taxonomy to provide the key for a differentiation between speech act and content of the speech act, as well as for an *a priori* classification of speech acts, he has to distinguish between kinds of interpretants.

Besides the “signified interpretant,” according to which signs are divided into rhemes, dicisigns, and arguments, there are two other species of interpretants:

In regard to their dynamic interpretants signs either determine their interpretants formally by definition, or determine their interpretants by acting upon them, or determine their interpretants merely by being represented as doing so in those interpretants. In regard to their immediate interpretants signs (in a broader sense than above so as not to insist on their interpretants being signs) either have Feelings, Experiences, or Thoughts for their interpretants.

RL 463 ISP 30

In the letter actually sent the trichotomy according to the immediate interpretant is presented in substantially the same terms, although the phrase “in a broader sense than above so as not to insist on their interpretants being signs” is omitted. Further, in the letter actually sent the trichotomy according to the dynamic interpretant is substantially different:

According to my present view, a sign may appeal to its dynamic interpretant in three ways:

1st, an argument only may be *submitted* to its interpretant, as something the reasonableness of which will be acknowledged. 2nd[,] an argument or dicent may be *urged* upon the interpretant by an act of *insistence*.

3rd[.] Argument or dicent may and a rheme can only be, presented to the interpretant for *contemplation*.

Finally, in its relation to its immediate interpretant, I would divide signs into three classes as follows: 1st, those which are interpretable in thoughts or other signs of the same kind in infinite series, 2nd[.] those which are interpretable in actual experiences, 3rd[.] those which are interpretable in qualities of feelings or appearances.

SS 35

The trichotomy according to the immediate interpretant is into “signs interpretable in qualities,” “signs interpretable in actual experiences,” and “signs interpretable in thoughts.” The trichotomy according to the dynamic interpretant is into what Short substantivizes as “presentations,” “urgings,” and “submissions” (2007, 271). The trichotomy according to the signified interpretant is into rhemes, propositions, and arguments. But what is the relative ordering of these trichotomies, and how does the interaction between them solve the problem of distinguishing proposition and assertion?

Let us start with the relation between the trichotomy according to the dynamic interpretant and the trichotomy according to the signified interpretant. Short rightly observes that the difference between urging and presenting a dicisign accounts for the difference between an assertion and the proposition asserted: an assertion is an “urged dicisign,” a proposition a “contemplated dicisign.” In presenting the trichotomy according to the dynamic interpretant, Peirce is explicit as to the rules of combination of the members of this trichotomy with the members of the trichotomy according to the signified interpretant: a rheme can only be presented; a proposition can either be presented (i.e., occur unasserted in logical discourse) or urged (i.e., asserted), but it cannot be submitted; an argument can either be presented (i.e., occur unsubmitted in logical discourse, as “*P*, therefore *Q*” in “If the argument ‘*P*, therefore *Q*’ is valid, then the conditional ‘if *P* then *Q*’ is valid”), or be urged (as when we express the argument “*P*, therefore *Q*” in the conditional proposition “If *P*, then *Q*”), or be submitted. The six classes of possible signs, out of the nine possible combinations, are thus the following:

presented rhemes
 presented dicisigns
 urged dicisigns
 presented arguments
 urged arguments
 submitted arguments

As Short notes (2007, 253), these six classes can be obtained by R1 and R2 only if the trichotomy according to the signified interpretant has precedence

over the trichotomy according to the dynamic interpretant. For in this case, by R1 (a first determines only a first), we could exclude the combinations

urged rheme
 submitted rheme
 submitted dicisign

thus obtaining the six classes of possible signs explicitly recognized by Peirce.

As Short suggests, if we further specify the kind of urging by additional divisions (whether the dicisign is urged *assertively*, *imperatively*, *interrogatively*, etc.), we can arrive at an *a priori* classification of speech acts. Short proposes that the sixth trichotomy (interpretable in thoughts, in actions, in feelings), which he makes correspond to the later division between the emotional, the energetic, and the logical interpretant (see *infra*, §8.3), be considered the level at which the typology of speech acts is located. Thus, an urging interpretable in thought is an urging whose interpretant is logical, and is the speech act of assertion; an urging interpretable in an actual experience is an urging whose interpretant is energetic, and is the speech act of command or other imperative utterance: “imperative utterances may then be classed as energetic urgings, while assertions are logical urgings. The immediate interpretant of the one is an action, of the other, a belief or other sign” (Short 2007, 252). In this way, the difference between a speech act and the content of that speech act (assertion *vs* proposition) is captured at the level of the division according to the dynamic interpretant (urged dicisign *vs* contemplated dicisign), while the difference between the several speech acts with the same propositional content is captured at the level of the division according to the immediate interpretant (assertively urged dicisign *vs* imperatively urged dicisign).

The matter is, however, more complicated. Short’s use of the division according to the immediate interpretant to account for the varieties of the “urgings” or speech acts of which one and the same dicisign can be the content is limited to only two modes of “urging,” the imperative and the declarative. This certainly fits with the rules (R1 and R2) that Peirce has employed so far for the determination of the possible classes of signs. For suppose (as Short does) that the trichotomy according to the immediate interpretant has precedence over the one according to the dynamic interpretant. R1 would exclude the possibility of urgings and submissions interpretable in qualities, and R2 would further exclude the possibility of submissions interpretable in experiences, but neither rule would exclude the possibility of urgings interpretable in actions (imperative signs) and of urgings interpretable in thoughts (assertive signs). However, while such a twofold typology of speech acts would fit with R1 and R2, yet it would not fit with what Peirce says of assertion in that context. When Peirce specifies that not all signs have thoughts as their interpretants, what he means is that *the interpretant of an assertion is not a sign*, but is an act (the act of taking responsibility for the

truth of the proposition asserted). This is evident as soon as we consider that since a thought is a sign, the claim that signs exist which have things other than thoughts as their interpretants amounts to the claim that signs exist which have things other than *signs* as their interpretants. But this is precisely what Peirce means when he writes to Lady Welby that the act of assertion is not a pure act of signification, i.e., that the (immediate) interpretant of an assertion is not necessarily a sign.

In fact, there is evidence that the division drawn according to the immediate interpretant does in some sense the same job as the one drawn according to the dynamic interpretant, namely precisely the job of providing a semiotic definition of the illocutionary act of assertion. In some notes written in 1904 in preparation for a review of Herbert Nichols's *Treatise on Cosmology*, and thus coeval to the letter to Welby which we are examining, Peirce distinguishes three kinds of "interpretations" signs can have as follows:

a sign frequently interprets a second sign in so far as this is married to a third. Thus, the conclusion of a syllogism is the interpretation of either premiss as married to the other; and of this sort are all the principal translation-processes of thought.

R 1476 CSP 5 ISP 37

there are signs that both can be and have to be interpreted in an appropriate act and deed, in order that their peculiar purport may be conveyed. Let a man write his name on a scrap of paper, and it means nothing; but let him affix it to legal instrument or affidavit, and it asserts. Such an assertive sign is technically termed a *dicisign*. Another case is where a sign is fully interpreted in its definition, the very creation of the new sign, not now bringing about an actual event, as with the *dicisign*, but merely imparting to the definition a certain *capacity*, or contingent power, that of being properly applied to designate whatever the definitum may designate. A sign whose whole purport can be so interpreted or conveyed is termed a *rheme*.

R 1476 CSP 6 ISP 51

Arguments are signs interpreted in thoughts, i.e., in other signs. But assertions (i.e., assertions of *dicisigns*) are not interpreted in thoughts: they are interpreted in acts or deeds. *Rhemes*, moreover, are neither interpreted in thoughts nor in acts, but in definitions. It is not an unlikely guess to suppose that the division of "interpretations" in the notes on Nichols corresponds to the coeval division according to the immediate interpretant in the letter to Welby. Here, as there, the assertion is defined as a sign whose interpretant is *not* a sign.

If this assimilation is accepted, then Short's reconstruction of Peirce's 1904 speech act theory is in some sense defective, for according to that reconstruction an assertion is an urging interpretable in thought, i.e., a sign whose

interpretant is a sign. The confusion derives from the fact that in the letter to Welby an assertion can be defined in *two mutually exclusive ways*: as an urged dicisign (when we consider the interactions between the division according to the dynamic and the division according to the signified interpretant), and as a dicisign interpretable in acts or deeds (when we consider the interactions between the division according to the immediate and the division according to the signified interpretant). The two couples of divisions do in some sense the same job (they capture the difference between assertion and content asserted), but are mutually exclusive (if one is used to demarcate assertion from content asserted, then the other must be used for some other taxonomic purpose).

The problem is that the speech act theory of 1904 is remarkably incomplete. Short is right that once the distinction between urged and unurged dicisigns is introduced the path is open for a typology of speech acts in terms of a typology of “urgings.” This is more or less what Peirce will do in his subsequent classifications. But in the 1904 letter to Welby, Peirce does not explain which permissible combinations would result from the simultaneous interaction of the three trichotomies relative to the three kinds of interpretant, nor, *a fortiori*, what permissible combinations would result from their interaction with the remaining trichotomies. As Short observes, in attempting to reconstruct the interactions between the six trichotomies of 1904, “we are already well beyond where Peirce, so far as can be told from the remaining record, left off” (2007, 255). As far as the system of six trichotomies is concerned, Short is certainly right. But, as Short knows too well, Peirce by no means left off there.

Thus in the taxonomic scheme recorded in the *Logic Notebook* on July 7, 1905, the sign’s relation to the immediate interpretant allows to divide signs into “Pathosemes,” “Ergosemes,” and “Logosemes” (R 339 DDR 247r). Peirce then adds that “[t]he Pathoseme has to be interpreted in a Feeling, [t]he Ergoseme has to be interpreted in Action, [t]he Logoseme has to be interpreted in Thought” (R 339 DDR 248r). It should be evident that these correspond to what in the 1904 letter to Welby were termed “signs interpretable in qualities,” “signs interpretable in actual experiences,” and “signs interpretable in thoughts,” respectively. Just like in the letter, this division is the one resulting from considering the sign’s relation to the immediate interpretant. But in the July 1905 scheme the members of the division resulting from considering the sign’s relation to the dynamic interpretant receive no specific name, symptom that Peirce now finds the older division into (what Short substantivizes as) “presentations,” “urgings,” and “submissions” to be ultimately unsatisfactory.

8.2 Ten trichotomies (I)

On October 8, 1905, Peirce records the following classificatory scheme in his *Logic Notebook*:

1905 Oct. 8

Division of Signs

- A. [A]s to being of sign
 Qualisign—Sign is Presentment or Abstract
 Sinsign—Sign is Existent
 Legisign—Sign is General in itself
- B. As to Object
 a. As to Immediate Object
Vague Sign—Sign represents object as Indefinite
Singular Sign—Sign represents [object as] Definite Individual {Abstract/
 Concrete/Collective}
General Sign—[Sign represents object as] Distributive general
 b. As to Dynamic Object
Icon—Sign agrees with object by virtue of *Common Quality*
Index—[Sign agrees with object by virtue of] [*b]eing really acted on by it*
Symbol—[Sign agrees with object by virtue of] [*b]eing so interpreted*
- C. As to Interpretant
 a. As to Immediate Interpretant
 The sign represents interpretant as feeling (Interjection), Action (Imperative),
 Sign (Indicative)
 b. [As to] Dynamic Interpretant
 Interprets by Sympathy, by Compulsion, by Reason
 c. [As to] Significant Interpretant
 The interp[retant] represents sign as in Rheme, Proposition, Argument

R 339 DDR 252r

This scheme contains two important innovations. In the first place, singular signs (the second member of the trichotomy according to the sign's immediate object) are further sub-divided into abstract, concrete, and collective signs. In the second place, the trichotomy according to the dynamic interpretant, which in the 1904 letter to Welby was into (what Short substantivizes as) "presentations," "urgings," and "submissions," now features signs (dynamically) interpreted by sympathy, by compulsion, and by reason.

All this is, admittedly, still very much obscure. On the same day, Peirce writes in the *Notebook*: "It is pretty clear that there are 4 more divisions that must be taken into account before order can be brought in" (R 339 DDR 253r). Then, the following *tenfold* classification is presented:

1905 Oct. 8

- A. Division according to the matter of the Sign
 Qualisign
 Sinsign
 Legisign

-
- B. Divisions according to the Object
 - a. According to the Immediate Object (how represented)
 - Indefinite Sign
 - Singular Sign
 - Distributively General Sign
 - b. According to the Dynamic Object
 - α. Matter of the Dynamic Object
 - Abstract
 - Concrete
 - Collection
 - β. Mode of representing object
 - Icon
 - Index
 - Symbol
 - C. Division according to Interpretant
 - a. According to Immediate Interpretant (How represented)
 - Immediate Interpretant represented as Vague
 - [Immediate Interpretant represented as] Singular
 - [Immediate Interpretant represented as] Distrib[utively] General
 - b. According to Dynamic Interpretant
 - α. Matter of Dynamic Interpretant
 - Feeling
 - Conduct
 - Thought
 - β. Mode of Affecting Dynamic Inter[pretant]
 - By sympathy
 - By compulsion
 - By reason
 - c. According to Representative Interpretant
 - α. Matter of Representative Interpretant
 - ...
 - β. Mode of being represented by Representative Interpretant
 - ...
 - γ. Mode of being represented to represent object by Repr[esentative] Inter[pretant]
 - ...
-

R 339 DDR 253r

The “four more divisions” that Peirce now recognizes derive from the principle of categorial subdivisibility which we have already encountered in previous Chapters. The principle is that in any triadic subdivision into firsts, seconds, and thirds, there is one first, two seconds, and three thirds. Since the immediate object of a sign is a first while the dynamic object is a second, then there must be *one* division according to the immediate object and *two* divisions according to the dynamic object. Likewise, since the immediate interpretant of a sign is a first, the dynamic interpretant a second, and the signified or—as Peirce calls it in October 1905—representative interpretant a third, then there must be *one* division according to the immediate interpretant, *two* divisions according to the dynamic interpretant, and *three* divisions according to the representative interpretant. This gives the ten trichotomies of October 1905.

We already know that a sign, considered in relation to its immediate object, can be vague (particular), singular, or general (universal). The divisions resulting from the sign's relation to the dynamic object are now two. As to the way the sign *represents* the dynamic object, the division is the old one into icons, indices, and symbols. But as to the “matter” of the dynamic object, i.e., the way the dynamic object is *in itself*, the division is now into abstract, concrete, and collective. Peirce writes in the *Notebook* between October 10 and 12:

1. A sign may have for its object represented an abstract fragment of being not capable of existence by itself, or even of distinct apprehension without a sort of blurr [*sic*] attaching to it, the vague apprehension of what is omitted. Such a sign may be termed a *hypostatically abstract sign*, or a *Hypostatic*.

2. The dynamic Object represented may be an existent represented as existing regardless of any other existence. Such a sign may be termed a *Concrete*.

3. A sign may have for its dynamic object a type in its mode of having as object; that is, as existing in combining generalized existents. Such a sign is termed a *Collective*.

R 339 DDR 257r

This trichotomy, which in the first scheme of October 8 was a subdivision of singular signs only, has now become a division of all signs, or better, of all objects of signs. The object represented by a sign can be an abstract object (like “color” or “beauty”), a concrete object (like “man” or “Socrates”), or a collective sign (like “number” or “mankind”). Whatever this implies as to Peirce's ontology, it is clear that this division is independent of the one according to the immediate object. For an object may be abstract (“color”) and yet form the subject of a particular proposition (“some colors are primary”); we should then say that this sentence is a sign which, according to the nature of its dynamic object, is abstract, while according to its immediate object, is vague. Likewise, an object may be concrete (“man”) and yet form the subject of a universal proposition (“all men die”); we should then say that this sentence is a sign which, according to the nature of its dynamic object, is concrete, while according to its immediate object, is general; and so on. As we know, the permissible combinations of the members of these two trichotomies (that according to the immediate object and that according to the dynamic object as it is in itself) requires to be regulated by specific rules of semiotic compossibility, which in turn depend on the possibility of linearly ordering the two trichotomies. After the several and only partially successful attempts to array his enlarged system of trichotomies in 1904 and in 1905 (see *supra*, §8.1), Peirce would try again to tackle this problem only in 1908 (see *infra*, §8.4.2). For now, what he is interested in is, first of all, to determine what

trichotomies “must be taken into account *before order can be brought in*” (R 339 DDR 253r, emphasis added).

While the new division according to the nature of the dynamic object seems quite to satisfy Peirce, the divisions resulting from the sign’s different interpretants must have cost him much more labor. In the margins of the second classificatory scheme of October 8, 1905, we find the following tentative explanations:

[The] Immediate Interpretant is the Interpretant as represented in the sign as determination of the sign. To which the sign appeals. The dynamic Interpretant is the determination of a field of representation exterior to the sign (such a field is an interpreter’s consciousness) which determination is effected by the sign. The representative Interpretant is the interpretant that truly represents that the Sign represents its Object as it does.

R 339 DDR 253r

And on October 12 he writes:

The immediate interpretant is the interpretant as the sign expresses it, the interpretant that the sign of itself creates; and it is to be taken into account in the classification in so far as its different functions [. . .] affect different forms of the sign. The dynamic interpretant is the sign of the object/interpretant determined by the sign in a field of interpretation exterior to the sign; and it has to be taken into account in so far as different forms of signs require different kinds of signs of the object/dynamic interpretants & also in so far as the different modes [of] relations of the excited sign of the object in the exciting sign make the latter to function as a sign. The representative interpretant is the sign that is required to signify the professed identity or agreement of the sign with its dynamic object.

R 339 DDR 260r

That which in the 1904 letter to Welby was the interpretant “as represented or meant to be understood” is now the immediate interpretant. The immediate interpretant is the interpretant as *represented* or *expressed* by the sign. That which in 1904 was the interpretant “as it is produced” is now the dynamic interpretant, which is the actual effect of the sign upon an actual interpreter. This interpretant is *determined* by the sign. That which in 1904 was the interpretant “in itself” is now the representative interpretant, and is the interpretant that *represents* the sign to be a sign of the object. Following the principle of categorial subdivisibility, the divisions according to the interpretant must be six: there will be *one* division according to the immediate interpretant (firsts have only one variety), *two* divisions according to the dynamic interpretant (seconds have two varieties),

and *three* divisions according to the representative interpretant (thirds have three varieties).

Between October 8 and October 13, Peirce experiments with several possible parallel variants of the tenfold taxonomy. On October 9 he divides signs according to the way the immediate interpretant is represented into “Clamatory,” “Imperative,” and “Representative,” then according to the “matter of the dynamic interpretant” (i.e., to the dynamic interpretant in itself) into “Feelings,” “Conducts,” and “Thoughts,” and finally according to the “mode of affecting the dynamic interpretant” (i.e., to the way the sign determines that interpretant) into “[signs] by sympathy,” “[signs] by compulsion,” and “[signs] by reason” (R 339 DDR 253r). On October 12 he divides signs according to their immediate interpretant into “potentives,” “imperatives,” and “significatives,” where the potentives are further subdivided into “interrogatives,” “ejaculatives,” and “desideratives” (R 339 DDR 260r). Signs are then divided according to the dynamic interpretant in itself into “eidosemes” (a new name for the “pathosemes” of July 1905), “ergosemes,” and “logosemes,” while according to the “nature of the appeal of the sign to it” (i.e., to the way the sign determines that interpretant) they are divided into “[signs by] sympathy,” “[signs by] compulsion,” and “[signs by] reason” (R 339 DDR 261r). The upshot of these taxonomic experiments is the table of October 13, 1905, which I reproduce in its entirety:

	1905 Oct. 13	
A. Nature of Sign in Itself		
Abstraction = Qualisign	Existent = Sinsign	Combinant Type = Legisign
B. Of Object		
a. Immediate		
In what form object is represented in sign as far as affects form of signs		
Indef[inite]	Sing[ular]	General
b. Dynamical		
α. Nature of Object in Itself		
Abstraction	Concrete	Collection
β. Causation of sign’s representing Obj[ect]		
...
C. Of Interpretant		
a. Immediate		
In what form interpretant is repr[esented] in sign		
Interrog[ative]/	Imper[ative]	Significat[ive]
b. Dynamical		
α. Nature of Interpretant in Itself [a]s far as that affects Nature of sign		
Feeling	Fact	Sign
β. Causation of sign’s affecting Interp[retant]		
Sympathy	Compulsion	Representat[ion]
c. Representative		
α. In what form sign is represented in Interpretant		
As far as this affects form of sign		
...

β. Causation of representation of Sign by Interpretant

As far as this affects the nature of the Sign

...

...

...

γ. *Rationale* of Connection between Sign and Object effected by Interpretant

...

...

...

R 339 DDR 262r

Trichotomy “A” is the one into qualisigns, sinsigns, and legisigns, which made its first appearance in R 800 and in *NDTR* (see *supra*, §7.3). Trichotomy “B.a” is the one into particular, singular, and general signs, and it made its first appearance in the 1904 letter to Welby (see *supra*, §8.1). Trichotomy “B.b.α” is the one into abstract, concrete, and collective signs, first introduced in the scheme on October 8, 1905. Trichotomy “B.b.β,” although Peirce leaves the spaces for the members of this trichotomy blank, is the old and familiar one into icons, indices, and symbols. Thus, notwithstanding that the problem of the compossibility of the parameters specified by the trichotomies is not addressed at all at this stage, yet what the parameters themselves are is, after all, not very difficult to understand. But what about the remaining six trichotomies, which specify semiotic parameters relative to the different kinds of interpretants?

The single division that results from the immediate interpretant (“C.a”) is into interrogatives, imperatives, and significatives; it corresponds to the trichotomy which, in the October 8 sixfold scheme, was into “feeling (interjection),” “action (imperative)” and “sign (indicative)” (R 339 DDR 252r). This trichotomy is clearly a division of speech acts into three basic kinds according to the way the sign represents its immediate interpretant: an interrogative sign represents its immediate interpretant as a reply, an imperative sign represents its immediate interpretant as an action, and a significant or indicative sign represents its immediate interpretant as a thought or sign.

By contrast, the division that results from the nature or matter of the dynamic interpretant itself (“C.b.α”) is into signs whose dynamic interpretant is a feeling, a fact, or a sign, while the division that results from the way the sign determines the dynamic interpretant (“C.b.β”) is into signs that determines their dynamic interpretant by sympathy, by compulsion, or by reason. This latter division clearly corresponds to that which, in the October 8 sixfold scheme, was the *single* division according to the dynamic interpretant. Even though the result of the application of the rules of semiotic compossibility to the “dynamic” trichotomies is not specified (and in fact, it never will be), it would seem that if “C.b.β” follows in order “C.b.α,” then allowing a feeling to be the product of compulsion would amount to violating R1 (a first can only determine a first). This is a further indication that R1 and R2 cannot be applied to the new system without emendations. It would perhaps be safer to assume that the members of “C.b.α” and “C.b.β” have a sort of one-to-one correspondence, so that feelings, facts, and signs (members of “C.b.α”) are respectively brought about by sympathy, by compulsion, and by representation (members of “C.b.β”).

The divisions according to the representative interpretant (“C.c.α,” “C.c.β,” and “C.c.γ”) are left blank. From coeval notes in the *Logic Notebook* (R 339 DDR 254r, October 9) it can be evinced that these trichotomies were not particularly troubling for Peirce. While the eighth (“C.c.α”) trichotomy will be determined only later, the ninth and tenth trichotomy are old acquaintances of Peirce’s: the ninth trichotomy (“C.c.β”) is the usual one into rhemes, dicisigns, and arguments, while the tenth (“C.c.γ”) is the division of inferential forms into abductions, deductions, and inductions. The importance of this move of Peirce’s—including the classification of arguments into the classification of signs—is difficult to underestimate. But I will have to delay discussion of this important issue a bit further.

What does this all mean? It is no news that Peirce had speech act theoretical interests.⁷ As we have seen above, the problem of distinguishing an assertion from a proposition emerges in 1904 with “Καινά στοιχεία.” But “Καινά στοιχεία” is only the *starting point* of Peirce’s mature reflections on assertion and other speech acts, by no means its end point. Peirce’s speech act theoretical investigations come to a full blossom in the classification of signs that follow “Καινά στοιχεία.” Thus, by reconstructing the steps by which Peirce came to his tenfold taxonomy of signs in October 1905, we are *ipso facto* reconstructing his speech act theory. In particular, we now see how the differentiation between kinds of interpretants can account for the distinction between what Austin called the locutionary, the illocutionary, and the perlocutionary level of analysis of an utterance:⁸

We first distinguished a group of things we do in saying something, which together we summed up by saying we perform a *locutionary act*, which is roughly equivalent to uttering a certain sentence with a certain sense and reference, which again is roughly equivalent to “meaning” in the traditional sense. Second, we said that we also perform *illocutionary acts* such as informing, ordering, warning, undertaking, &c, i.e. utterances which have a certain (conventional) force. Thirdly, we may also perform *perlocutionary acts*: what we bring about or achieve *by* saying something, such as convincing, persuading, deterring, and even, say, surprising or misleading.

Austin (1962, 108)

In the first place, the locutionary act is the utterance of a sign with a certain meaning. In the *Syllabus* the locutionary level corresponds to the sign’s relation to the interpretant. After the division of interpretants first effected in 1904, it corresponds to the sign’s relation to the “signified” or “representative” interpretant, i.e., the interpretant that *represents* the sign. In the October 13 scheme, this should correspond to the ninth trichotomy (“C.c.β”), which, on the basis of R 339 DDR 254r (October 9, 1905), I identified with the division into rhemes, dicisigns, and arguments.

In the second place, the illocutionary act is the uttering of a sign with a certain *force*, which, according to the October 13 scheme, is either interrogative, imperative, or assertoric force (“C.a”). Peirce exploits the correspondence between grammatical structure and illocutionary force, and thus bases his trichotomy of illocutionary forces on the old-fashioned grammatical categories of indicative, interrogative, and imperative sentences. The illocutionary dimension corresponds to the sign’s relation to its immediate interpretant, which the sign itself *represents*. In Peirce’s terminology, to say that the utterance of a sign has a certain illocutionary force, say, an interrogative force, is to say that the sign represents its immediate interpretant interrogatively. Thus, the distinction between the locutionary and the illocutionary dimensions of analysis is captured by the distinction between the sign’s relation to its representative interpretant (that represents the sign) and the sign’s relation to its immediate interpretant (which the sign represents).

In the third place, the perlocutionary act is what is brought about by the utterance of a sign. That which is brought about is, according to Peirce’s table of October 13, either a feeling, a fact, or a sign, which are (respectively, I suspect) brought about by sympathy, by compulsion, and by representation. The first trichotomy (“C.b.α”) corresponds to the nature of the dynamic interpretant, while the second trichotomy (“C.b.β”) corresponds to the sign’s relation to the dynamic interpretant. They collectively cover the perlocutionary dimension of analysis. Thus in Peirce’s terminology to say that the utterance of a sign produces a perlocutionary effect, say, the effect of producing a certain feeling, is to say that the sign determines (“causes”) its dynamic interpretant to be a feeling.

While, as Short has explained, the distinction between the locutionary and the illocutionary level of analysis had found a taxonomic framing already in the 1904 sixfold scheme, it is only in October 1905 that Peirce can make taxonomic sense of the distinction between the illocutionary and the perlocutionary level. Austin warned that “it is the distinction between illocutions and perlocutions which seems likeliest to give trouble” (1962, 109). As clearly explained by Sbisà, “[t]he border between Illocution and Perlocution runs between conventional effects and changes in the natural course of events [. . .] In fact, the distinction between Illocution and Perlocution is at all possible only if a difference between natural and conventional effects is accepted” (Sbisà 2007, 466). The border between illocution and perlocution runs, in Peirce’s classifications of signs, between the immediate and dynamic interpretant: the former is *represented* by the sign, the latter is *determined* by the sign; the former is the illocutionary force conventionally (i.e., representatively) associated with certain kinds of sign, the latter is the perlocutionary effect causally (i.e., non-representatively) determined by a certain sign. Take Peirce’s doubts on October 9 as to the grammar of the imperative: “The action actually produced is certainly the Dynamic Interpretant. But whether the action as expressed is the Immediate Interpretant or not is not clear. [. . .]”

The commanded act in the mere doing of it as influenced by the command is the Dynamic Interpretant” (R 339 DDR 254r). The table of October 13 makes it clear that the “mere doing” of the commanded act is the dynamic interpretant of the imperative, while the commanded act as “represented” in the imperative sign is the immediate interpretant of it. One might say that an immediate interpretant is a *conventional* effect of the sign, while a dynamic interpretant is a *natural* effect of the sign; the former is conventional in the sense that it is *the effect that the sign itself represents as its proper outcome*, while the latter is natural in the sense that it is *the effect that the sign de facto determines as its proper outcome*.⁹

The same general picture is offered in a taxonomic scheme recorded by Peirce in the *Logic Notebook* on March 31, 1906:

	Provisional Classification of Signs			1906 March 31
	A Sign is			
	in its own nature			
is either	A Tone	A Token	or A Type	
	in reference to its Immediate Object			
is either	Indefinite	Singular	or General Sign	
	in reference to the nature of its Real Object			
is either	Abstract	Concrete	or Collective	
	in reference to its relation to its Real Object			
is either	Icon	Index	or Symbol	
	in reference to its Intended Interpretant			
is either	Interrogative	Imperative	or Ponitive	
	in reference to the nature of its Dynamic Interpretant			
is either	Poetic or excitant of Feeling	Stimulant or excitant of Action	or Impressive or determinant of a Habit	
	Eidoseme	Ergoseme	Logoseme	
	in reference to its relation to its Dynamic Interpretant			
is either	Sympathetic	Compulsive	or Rational	
	in reference to the Nature of its Normal Interpretant			
is either	Strange	Common	or Novel	
	in reference to the Passion of its Normal Interpretant			
is either	Suggestive	Assertive	or Argument	
	in reference to the Significance of its Normal Interpretant			
is either	Monadic	Dyadic	Triadic	

As in the previous scheme, the illocutionary division into interrogatives, imperatives, and assertives (here called “ponitives”) is drawn according to the immediate interpretant, while the perlocutionary division into eidosemes, ergosemes, and logosemes is drawn according to the dynamic interpretant. The trichotomies resulting from the sign’s relation to its representative (here called “normal”) interpretant deserves further commentary. A remark written on April 2, 1906, in the *Notebook* says:

The Normal Interpretant is the Genuine Interpretant, embracing all that the Sign could reveal concerning the Object to a sufficiently penetrating mind, being more than any mind, however penetrable, could conclude from it, since there is no end to the distinct conclusions that could be drawn concerning the Object from any Sign. The Dynamic Interpretant is just what is drawn from the Sign by a given Individual Interpreter. The Immediate Interpretant is the interpretant represented, explicitly or implicitly, in the sign itself.

R 339 DDR 276r

The immediate interpretant is the *represented effect* of the sign, i.e., the effect of the sign as the sign itself represents it (illocutionary force). If the sign is assertive, its effect is represented as a thought or belief, while if the sign is imperative, its effect is represented as an action (the execution of the commanded act). The dynamic interpretant is the *actual effect* of a sign upon an actual interpreter, i.e., the effect that the sign actually produces (perlocutionary effect). By way of contrast with both the immediate and the dynamic interpretant, the representative or normal interpretant is said to be “all that the Sign could reveal concerning the Object to a sufficiently penetrating mind.” Let us take the following example contained in a draft of a paper on Existential Graphs that Peirce was to present to the National Academy of Sciences during the spring of 1906:¹⁰

Take, for example, a witness in court. His story is told without the slightest idea that it can be doubted. He contemplates and asks an uncritical acceptance of it, as the very vestige, or footprint, of the truth; necessarily conformed to the real Object in so far as the testimony is determinate. That is the Immediate, Naïve, or Rogate Interpretant. The dynamical interpretant is the judgment of the fact which listening to the witness’s testimony actually produces on the minds of the jury. The Normal Interpretant is the modification of the verdict of the jury in which this testimony ought logically to result.

R 499(s) ISP 4–5

The immediate interpretant (here also called “naïve” and “rogate”) is what the sign by itself represents as its proper outcome (illocutionary force); thus the testimony is a sign that, by itself, represents itself as true (has the illocutionary force of an assertive). The normal interpretant, by contrast, is

what the sign *ought to* represent to a scientific intelligence; if the witness's testimony is true as it represents itself to be (if the sign's immediate interpretant corresponds to the sign's object), then such-and-such verdict ought to follow from it. Thus the normal interpretant is the outcome that the sign ought to have if things were subjected to sufficient scientific (i.e., logical) consideration. The immediate interpretant is the sign that a sign *aims to* produce; the dynamic interpretant is the sign that it *actually* produces; the normal interpretant is the sign that it *ought to* produce. To use Peirce's 1907 terminology (about which more anon), the normal interpretant is the "final" representation that sufficient scientific consideration of the sign ought to produce.

But what does it mean that a sign is, according to its normal interpretant, either "strange," "common," or "novel"? Peirce does not say. What is also unclear is why the old division into rhemes, dicisigns, and arguments (the first two of which are here re-labeled "suggestive" and "assertive" signs, respectively) should be drawn in reference to the "passion" of the normal interpretant. Lastly, it is by no means clear why the division of signs into "monadic," "dyadic," and "triadic" signs (which is, quite obviously, a division of rhemes) should be drawn in reference to the "significance" of the normal interpretant. Yet, notwithstanding the obscurity of the last three trichotomies (either because the trichotomy itself is obscure or because its collocation is), it is a fact that, as far as the illocutionary and perlocutionary trichotomies are concerned (immediate and dynamic interpretants, respectively), the March 1906 scheme perfectly matches with the one set forth on October 13, 1905.

New concepts require new names, and Peirce was the last of men to be indifferent to this. Indeed, it is during the spring of 1906 that he must have come to the conclusion that his new findings in speech act theory necessitated a new grammatical terminology. Thus in a draft of the "Prolegomena for an Apology for Pragmatism"—the third article for the *Monist* series on pragmatism—he writes:

I must draw your attention to a trichotomy of all signs. This time, there is nothing that can generously be stigmatized as novel about the division. It is only the terminology, and the extension of the division to *all* signs, (with the consequent necessary modifications,) that is not to be found in every treatise on Logic. Every such book tells about the triplet, *Term, Proposition, Argument*; but not every book makes it quite clear what it is that this is a division of. If we are to say that it is a division of all signs, we shall have to change the definitions of the three classes, not to their very bottom, but superficially, and so much that precision demands that new terms should be substituted for "term," "proposition," and "argument." The new words I substitute for these are, *Seme, PHEME*, and *Delome* (σῆμα, φήμη, δῆλωμα [. . .]) It is a division according to the final interpretant. The first member of the triplet, the "Seme," embraces the logical Term, the Subject or Object of a sentence, everything of any kind, be it a man or a scribed character, such

as h or Pb, which will serve or is supposed to serve, for some purpose, as a substitute for its Object. It is a Sign which pretends, at least, to intend to be virtually its Object. The second member of the triplet, the “Pheme,” embraces all Propositions; but not only Propositions, but also all Interrogations and Commands, whether they be uttered in words or signalled by flags, or trumpeted, or whether they be facts of nature like an earthquake (saying “Get out of here!”) or the black vomit in yellow fever (with other symptoms of disease, which virtually declare, or are supposed to declare, some state of health to exist). Such a sign intends or has the air of intending to force some idea (in an interrogation), or some action (in a command), or some belief (in an assertion), upon the interpreter of it, just as if it were the direct and unmodified effect of that which it represents. The third member of the triplet, the “Delome” (dee’loam), embraces all arguments, syllogisms, and inferences, sound or not. It professes or has the air of professing, to convey the very creative law or reason which determines facts to be as they are.

R 295 CSP 26–30 ISP 12–15¹¹

Peirce remarks that (what I have called) the first reform of speculative grammar – the extension of the division into terms, propositions, and arguments to *all* signs – requires to be reflected in a new logical terminology. But the extension he is talking of is not merely the 1903 extension of the notion of proposition (which is necessarily a symbol) to that of dicisign (which can be symbolic or indexical). A “pheme” is not simply a dicisign. A dicisign is something that has the structure of a proposition and that can be used to make an assertion. A pheme is, *more generally*, something that has the structure of a proposition and that can be used to perform several speech acts. While in the *Syllabus* (in consequence of the first reform of speculative grammar first presented in the *Minute Logic*) the grammatical notion of proposition was enlarged to that of dicisign by including non-symbolic propositions, in the “Prolegomena” (in consequence of the third reform of speculative grammar first communicated in 1904 to Lady Welby) the grammatical notion of dicisign is further enlarged to that of pheme by including non-assertoric dicisigns. Given the taxonomic investigations I have documented above, this should come as no surprise. To signalize the further extension, Peirce re-names the locutionary trichotomy <rheme, dicisign, argument> into <seme, pheme, delome>. A pheme is the kind of sign that can have several illocutionary embodiments, as interrogative, imperative, and assertive sentences, which in turn can have several perlocutionary effects and thus qualify as eidosemes, ergosemes, or logosemes.

A seme can be an icon, and index, or a symbol. A pheme can be either an index or a symbol, but can also have one of several illocutionary forces. An argument, by contrast, can only be a symbol. Therefore, the conception of argument cannot be extended as the conceptions of term and proposition have been. This is the reason why the ethics of terminology requires a new logical terminology for terms (re-named “rhemes” and then “semes”

to signalize that they cover iconic, indexical, and symbolic terms) and for propositions (first re-named “dicisigns” to signalize that they cover both indexical and symbolic propositions and then re-named “phemes” to signalize that they cover assertoric as well as interrogative and imperative dicisigns), but not for arguments. As Peirce explains in the draft, the term “argument” could perfectly be used instead of “delome,” “except that it did not go so well with the words I use for the other members of the triplet” (R 295 CSP 30). While it is necessary to adopt new names for terms and propositions, it is optional to do so for the argument. Peirce opted for the change only for reasons of esthetics, not of ethics, of terminology.

The taxonomic scheme recorded in the *Logic Notebook* on August 31, 1906 (and thus written after the “Prolegomena,” which is by that time in course of publication in the *Monist*), reflects the new terminology:

			1906 Aug. 31
Provisional division of Signs			
I	1st Division, according to the Matter of the Sign	Tinge	Token
		Vague Quality	Thing or Fact
			Type
II.i	2nd Division, according to the Immediate Object	Form under which the Sign presents its	
	Indefinite	Designation	General
II.ii.1	3rd Division, according to the Nature of the Real Object	Abstract	Concrete
			Collection or other Ens Rationis
II.ii.2	4th Division, according to the Connection of the Sign with its Object	Icon	Index
			Symbol
III.i.	5th Division, according to the Form of Signification, or Initial Interpretant		
Medad Monad Dyad Polyad perhaps Hypothetic Categorical Relative ?			
III.ii.1	6th Division, according to the Nature of the Middle Interpretant	Sympathetic	Shocking
		Congruentive	Percussive
III.ii.2	7th Division, according to the Manner of Appeal to the Middle Interpretant	Interrogative	Imperative
		(or Suggestive)	Indicative
III.iii.1	8th Division, according to the Purpose of the Eventual Interpretant	Gratific	Actuous
			Moral or Temperative to produce Self Control
III.iii.2	9th Division, according to the Nature of the Influence the Sign is intended to exert	Seme	PHEME
			Delome
III.iii.3	10th Division, according to the Nature of the Assurance afforded [to] the Interpreter of taking the Sign according to its Purpose	Abducent	Inducent
	assurance of instinct	assurance of experience	Deducent assurance of Form

Under several respects, this table represents a further development of Peirce's 1905–1906 grammatical investigations. In the first place, Peirce re-labels the immediate, dynamic, and representative interpretants as the “initial,” the “middle,” and the “eventual” interpretants, respectively. In the second place, while the first, second, third, and fourth trichotomies are basically the same as in previous schemes, the remaining six have undergone either a substantial transformation or a re-location.

The illocutionary trichotomy has been re-located at the level of the dynamic (now “middle”) interpretant. There are two different candidates for what replaces the slot left vacant by the re-location of the illocutionary trichotomy; one is the trichotomy into monads, dyads, and polyads (which is a typology of semes), and the other, suggested tentatively by Peirce, is the trichotomy into hypotheticals, categoricals, and relatives (which is a taxonomy of phemes). Peirce was somehow persuaded that including in the taxonomy either or both the traditional division of propositions and the valence-based division of predicates was a good idea, as we find traces of it in some drafts of the same period. For example, we have seen above that in the scheme of March 31, 1906 the division of signs into “monadic,” “dyadic,” and “triadic” signs was drawn in reference to the “significance” of the normal interpretant. His decision to include the <hypothetical, categorical, relative> division in the taxonomic edifice is also significant. For if a division of propositions according to their quantity is given a place in the classification—as it is under the form of the <vague, singular, general> trichotomy that from 1904 onwards is the stable division of signs “according to their immediate object”—the division of propositions according to their structure must be given a place as well.¹² And he might have thought that if the <hypothetic, categorical, relative> division is to enter the classification, its collocation has to parallel that of the <particular, singular, universal> division: as the latter derives from a sign's relation to its immediate object, so the former must derive from a sign's relation to its immediate (here “initial”) interpretant. This of course implies a relocation of the illocutionary triplet at the level of the dynamic interpretant, and, though not without hesitation, this must have appeared to him the least worst option. The relocation of the illocutionary triplet at the level of the dynamic interpretant is a return to the taxonomy of October 1904, where the different “forces” that rhemes, dici-signs, and arguments can have were distinguished in function of the sign's relation to the dynamic interpretant. A consequence of this is, however, that the illocutionary triplet is now preceded by the perlocutionary triplet, which is also placed at the level of the dynamic interpretant.

The last three trichotomies are worthy of further commentary. In the first place, the eighth trichotomy, which is a division according to the “purpose of the eventual interpretant,” seems to have the special task of isolating those signs that can be *arguments* from those that cannot. For as Peirce explains in the published version of the “Prolegomena,” an argument is a sign “which has the Form of tending to act upon the Interpreter through his

own self-control, representing a process of change in thoughts or signs, as if to induce this change in the Interpreter” (Peirce 1906, 507). Here is another passage, from “Issues of Pragmatism” (the article preceding the “Prolegomena” in the *Monist* series on pragmatism), which emphasizes the connection between consciousness, self-control, and reasoning:

to say that an operation of the mind is controlled is to say that it is, in a special sense, a conscious operation; and this no doubt is the consciousness of reasoning. For this theory requires that in reasoning we should be conscious, not only of the conclusion, and of our deliberate approval of it, but also of its being the result of the premiss from which it does result, and furthermore that the inference is one of a possible class of inferences which conform to one guiding principle.

Peirce (1905b, 483)

In order to distinguish between valid and invalid arguments, we have to isolate an argument’s leading principle, for an argument is valid if its leading principle is true. But this is as much as to say that reasoning is a conscious, self-controlled activity, distinct from instinct or uncritical thought. For only something that is under our control can be criticized, that is, distinguished into valid and invalid or into true and false. Thus, it seems that when the *purpose* of the eventual interpretant of a sign is to produce self-control, the sign must be an argument. This gives us a reason to suspect that the third member of the eighth trichotomy must in some way correspond to the third member of the ninth.

The tenth trichotomy is a division of arguments. We know (see *supra*, §1.4) that in his early logical investigations Peirce connected abduction with icons, induction with indices, and deduction with symbols. We also know (*supra*, §6.5) that in the *Minute Logic* of 1902 Peirce proposes a different “grammatical” classification of arguments, according to which abduction corresponds to firstness and to the iconic sign, deduction corresponds to secondness and to the indexical sign, and induction corresponds to thirdness and to the symbolic sign. The 1902 classification, we observed, perfectly harmonizes both with the principle of categorial subdivisibility (in any triadic subdivision into firsts, seconds, and thirds, there is one first, two seconds, and three thirds) and with Peirce’s idea that the three kinds of reasoning are in fact employed in three different, *successive* stages of scientific inquiry (first abduction, then deduction, and finally induction). And we know that by the spring of 1903 Peirce had already called the 1902 ordering into question, declaring to be disposed to revert to his original opinion of 1867, but also confessing that he found the matter so obscure as to prefer to leave the question undecided.

In 1906, he finally and definitely reverts to the original disposition of 1867. Not immediately, however. So in the notes on the classification of signs written in October 1905 we find signs divided “according to the Nature of

the Sign as represented in the Representative Interpretant as determining its Interpretant” into “Abductive” (which “professes to be exclamatory”), “Deductive” (which “professes to be imperative”), and “Inductive” (which “professes to be enlightening”) (R 339 DDR 255r). The attempt to divide arguments according to the three illocutionary forces is remarkable, but is soon abandoned.¹³ The order of the triplet is, however, the one proposed in 1902 in the *Minute Logic*, namely abduction first, then deduction, and then induction. Likewise, in a note written on August 30, 1906, arguments are divided into “Sign by common nature,” “Sign by diagram,” and “Sign by experiment,” which again follows the 1902 ordering. But these are merely tentative schemes and scattered notes. The full taxonomic scheme drafted in August 31, 1906, presents the three kinds of arguments in the order of 1867, namely abduction first, then induction, and then deduction. This is the ordering that we will find in the “final” scheme communicated to Lady Welby in December 1908 (see *infra*, §8.4.2).

Arguments differ as to the kind of assurance each professes to provide. An induction is an argument whose assurance is based on *experience*. This is plain, for the justification of induction is that it is valid because repeated applications of the inductive method must lead to a result indefinitely approximating to the truth in the long run. In brief, the justification or assurance of induction is that it is auto-corrective, i.e., that experience will replace erroneous conclusions with correct ones. A deduction is an argument whose assurance is based on form. That is, a deduction is an inference whose validity is not grounded in any fact about the world, but only in facts about certain *signs*; as we know, all deduction is iconic and diagrammatic, and icons are the only signs that can directly display a form. Thus, the justification or assurance of deduction is that it is based on forms and on forms only.¹⁴

Abduction is an argument whose assurance is based on *instinct*. Now, in saying that the assurance provided by abduction is instinct Peirce is not suggesting that abduction is an instinctive form of thinking, because this would at once exclude abduction from the realm of reasoning; for reasoning is self-controlled activity, while instinct is not. Rather, he is suggesting that abduction is a form of reasoning whose leading principle (or fundamental assumption) is that nature is explainable. But to say that nature is explainable is to say that man has an instinct to explain natural phenomena correctly. Peirce says that abduction is valid because it is “the result of a method that must lead to the truth if [. . .] it is possible to attain the truth. Namely we must assume the human mind has a power of divining the truth, since if not it is hopeless even [to reason]” (R 276 ISP 39). A form of thinking that follows a leading principle is not an instinctive form of thinking, for a leading principle can be criticized. But this does not prevent the leading principle from making reference to instinct. Thus, the justification of abduction is not that abduction is instinctively valid; its justification is that it is based on the fundamental abduction that abduction is instinctively valid, i.e., that we have a “power of divining the truth,” an instinct to explain nature.¹⁵

The tenth trichotomy, then, captures grammatically a distinction which is the principal task of logical critics to draw, namely the distinction of arguments into kinds according to the “assurance” each is supposed to provide. This trichotomy is thus the meeting point of speculative grammar and logical critics. Speculative grammar suggests that, on the basis of the taxonomy of signs, arguments should be of three kinds, each characterized by its own kind of assurance. Building on this grammatical suggestion, it will then be the task of logical critics to develop a full-fledged theory of the classification of arguments on the basis of the “kind and degree of assurance each could supply, and under precisely what conditions” (NEM 4:159, 1911). The tenth trichotomy is where speculative grammar passes the buck to logical critics.

8.3 “Pragmatism”

After the work done in summer 1906 and culminated in the scheme just discussed, and after few other notes written in the fall of the same year in the *Logic Notebook* concerning the definitions of the immediate, the dynamic, and the final interpretant, Peirce’s taxonomic investigations are suspended, to be recovered only in 1908. In the meanwhile, Peirce works on other projects. One of these is the famous article on pragmatism, titled “Pragmatism” and conceived as an open letter to the editor of a journal, which Peirce wrote in the spring of 1907 and which was rejected by both the *Nation* and the *Atlantic Monthly*.¹⁶ In this article, we find a less sophisticated presentation of the basic concepts of speculative grammar, and in particular a quite helpful discussion of the notion of “collateral observation,” as well as what appears to be a *new* trichotomy of interpretants. Even though Peirce’s immediate purpose in this article is not to provide a taxonomy of signs, it is useful to comment on both these aspects in some detail.

In the first place, every sign has an object and an interpretant, and is “both determined by the object *relatively to the interpretant*, and determines the interpretant *in reference to the object*, in such wise as to cause the interpretant to be determined by the object through the mediation of this ‘sign’” (R 318 CSP 44 ISP 302). Since the object determines the sign, and the sign determines the interpretant, the object may be said to determine the interpretant by means of the sign. The sign is thus a “medium,” as a quasi-coeval definition written for Lady Welby recites:

For the purposes of this inquiry a *Sign* may be defined as a Medium for the communication of a Form. [. . .] As a *medium*, the Sign is essentially in a triadic relation, to its Object which determines it, and to its Interpretant which it determines. In its relation to the Object, the sign is *passive*; that is to say, its correspondence to the Object is brought about by an effect upon the sign, the Object remaining unaffected. On the other hand, in its relation to the interpretant the sign is *active*, determining the interpretant without being itself thereby affected.

In the same letter to Welby, Peirce notes that his former preference for the term “representamen” was due to its evoking the function of representative or deputy in juridical contexts. But the definition, he now argues, does not apply to such cases, for while a lawyer is expected to modify the condition of her client, a sign cannot modify or otherwise determine the object. According to the definition, the object is active, not passive. If the object were passive, it would be determined by the sign, i.e., the object would be as the sign represents it to be. But the object (the “real” or “dynamic” object, as we shall see in a moment) is active and not passive precisely because for something to be real is for it to be as it is independently of being represented. Should a sign be able to determine its object, the difference between reality and fiction would vanish. Thus, the term “representamen,” in evoking a passive object, is not appropriate as the name of the *definitum*.¹⁷

In “Pragmatism” Peirce advances the claim that the object of a sign “is necessarily unexpressed in the sign, taken by itself” (R 318 CSP 34 ISP 292). What *is* expressed, he says, “comes under quite a different category” (*ibid.*). Here we have a criterion to distinguish between the object and the interpretant of a sign. The object is that which the sign represents but which is, in itself, unexpressed in the sign, while the interpretant is the representation of the object which is expressed by the sign. What does it mean? The following example will clarify the matter:

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

R 318 CSP 26–28 ISP 284–286

In order to understand the sign “It is a terrible fire,” one must understand what universe of discourse is being referred to by the sign. As we know (cf. *supra*, §3.3), one of Peirce’s first discoveries in the logic of relatives was that

the universe of discourse cannot be described in general terms: it can only be indicated. In the 1907 terms, the universe of discourse to which a sign refers is “unexpressed” in the sign. I cannot understand the sentence “It is a terrible fire” if I am not already acquainted with what universe of discourse the utterer of the sentence is referring to. Only after the universe of discourse has been specified (whether as that part of the city which is common to utterer’s and interpreter’s experience, or as that which the newspaper, which is part of the utterer’s and interpreter’s experience, is talking about), am I prepared to receive the information that the sign conveys about that universe or about an object in it.

The previous knowledge of the object that is necessary to understand the sign is called by Peirce “collateral observation.” Collateral observation is, in the first place, of the nature of *observation* because no general description can direct my attention to the subject of discourse; that subject has to be indicated, that is, identified through observation. Collateral observation is, furthermore, *collateral* because it must “accompany” the sign and be “at the side” of it if the sign is to be understood. No mere inspection of the sign itself (no “closer examination of the utterance”) would reveal the identity of the object denoted; the identity of the object has to be gained by determining what previous knowledge or other experience of the object the sign presupposes (the “collateral observation of the utterer”). The object, Peirce says, “is something quite indispensable to the functioning of the sign, yet it cannot be fully revealed or brought to light by any study of the sign alone, as such. Knowledge of it must come from some previous or collateral source” (R 318 CSP 23 ISP 281). As Peirce writes to William James in 1909, “by collateral observation, I mean previous acquaintance with what the sign denotes” (CP 8.179).

It is important to notice that, in this sense, anything which a sign cannot by itself express, and which can only be given through collateral observation, has to be considered an object of the sign (if the sign is a proposition, as a subject thereof). Thus Peirce writes to Lady Welby on December 14, 1908:

Thus the statement, “Cain killed Abel” cannot be fully understood by a person who has no further acquaintance with Cain and Abel than that which the proposition itself gives. Of course, Abel is as much a subject as Cain. But further, the statement cannot be understood by a person who has no collateral acquaintance with killing. Therefore, Cain, Abel, and the relation of killing are the subjects of this proposition.

SS 70

Anything has to be considered an object of the sign which must be collaterally known by observation. Thus “the proper way in logic is to take as the subject whatever there is of which sufficient knowledge cannot be conveyed in the proposition itself, but collateral experience on the part of its interpreter is requisite” (NEM 3:885, 1908); “[a]ll that part of the understanding

of the Sign which the Interpreting Mind has needed collateral observation for is outside the Interpretant” (CP 8.179), i.e., is part of the object.¹⁸ I will return to this in the next section.

However, as we know, since 1904 the object of a sign is twofold: “the *immediate* object, if it be the idea which the sign is built upon, the *real* object, if it be the real thing or circumstance upon which that idea is founded, as on bed-rock” (R 318 CSP 33 ISP 291). The dynamic object is the object in itself, which can also be called the “real” object in as much as it is the object that determines the sign to represent it and is not determined by it. By contrast, the immediate object is, Peirce now explains, the *idea* of the dynamic object upon which the sign is grounded. Collateral observation, Peirce says, “aided by imagination and thought, will usually result in some idea. [. . .] Such an apprehension, approaching, however distantly, that of the Object strictly so called [the dynamic object], ought to be, and usually is, termed the ‘immediate object’ of the sign in the intention of its utterer” (R 318 CSP 40–41 ISP 298–299). The sign “Napoleon was lethargic”¹⁹ has, as its dynamic object, the real Napoleon; it has, as its immediate object, the idea that the sign’s utterer has of the dynamic object, say, the idea of such-and-such historical figure. This idea may not be completely determinate, but “may be indefinite in some regards and general in others” (*ibid.*). A corresponding idea, which can equally be indefinite and indeterminate, has to be possessed by the interpreter of the sign. For otherwise the sign would fail to function as such. Thus, to return to Peirce’s example in R 318, the idea of the part of Rome between Piazza di Spagna and the Pincian Hill is the immediate object of the sign “It is a terrible fire” when this latter is understood by one of its interpreters to be about a fire in that part of the city, while the idea of the city of Tehran (or Sidney, or whatever other city the newspaper is thought to be talking about) is the immediate object of the sign when the sign is understood by another of its interpreters to be talking of a fire in that city. If the immediate object of the interpreter coincides with that of the utterer, i.e., if the utterer has successfully referred to an object of the interpreter’s experience, the sign functions as such and can be judged true or false. Thus, the idea of Napoleon is the immediate object of the sign “Napoleon was lethargic,” and utterer and interpreter must have roughly the same idea of that man in order for the sign to be properly understood and receive a truth-value.

As we know (cf. *supra*, §8.1), initially Peirce had conceived the immediate object as the manner in which the dynamic object is quantitatively given (i.e., quantified) within a propositional context: if the dynamic object is the universe of men, then that dynamic object can be quantitatively given (quantified) either particularly/vaguely (as “some man” in “some man is wise”), singularly (as “Socrates” in “Socrates is wise”), or universally/generally (as “all men” in “all men are wise”). Now, the new doctrine that the immediate object is often the “idea” upon which the sign is built seems

to constitute a specification of the way in which a *singular* object can be referred to by a sign. The universe of discourse is always a singular (i.e., definite and individual) object. As such, it cannot be described, but can only be indicated. Collateral acquaintance with the universe of discourse is presupposed by the very functioning of a sign. Once the interpreter of the sign has identified the universe of discourse by means of collateral observation (as, say, the universe of men), a further instruction or precept (existential or universal quantifier) may be needed to select the object from the universe of discourse. Thus, all signs are, in a sense, singular signs, because all signs presuppose a *singular universe of discourse* as that about which they talk. But while some signs as it were “remain” singular, because an object of that universe is directly referred to, for example by a proper name (Napoleon, Cain, Tehran), other signs quantify over that singular universe, and thus are either existential or universal.

We thus see that the doctrine of the immediate object presented in “Pragmatism” contains a development and a refinement of the notion introduced in the semiotic taxonomy in 1904. The immediate object of a sign is the manner in which the dynamic object is given: a direct indication or reference to some singular (i.e., definite and individual) universe of discourse as the dynamic object of the sign is always needed, and the difference among signs (and thus a typology of signs) emerges from the manner in which that universe is referred to, this manner being in fact the immediate object of the sign. Singular signs directly refer to a singular object (Napoleon, Cain, Tehran) of a singular universe of discourse (the actual world, the world of the Bible, the world which the newspaper is talking about). Existential and universal signs directly refer to the universe and quantify over it. In either case, the dynamic object (universe of discourse) has to be known or experienced by collateral observation. As such, it cannot be expressed by the sign. Rather, the sign functions as such if the object has already been identified by collateral observation. The “sole function of the object is identification” (R 318 CSP 14 ISP 99), that is, the sole function of the immediate object, whether singular or quantified, is the identification of the dynamic object.²⁰ I shall return to this point (*infra*, §8.4).

In “Pragmatism” Peirce also dwells at length on the different kinds of interpretants that a sign can be said to have.

Corresponding to [the object of a sign] there is something which the sign in its significant function essentially determines in its interpreter. I term it the “interpretant” of the sign. In all cases, it includes feelings; for there must, at least, be a sense of comprehending the meaning of the sign. If it includes more than mere feeling, it must evoke some kind of effort. It may include something besides, which, for the present, may be vaguely called “thought.” I term these three kinds of interpretant the “emotional,” the “energetic,” and the “logical” interpretants.

A musical air has an emotional interpretant, i.e., is interpreted in a feeling. All signs have emotional interpretants, but some signs, such as musical airs, have *only* emotional interpretants. A sentence in the imperative mood has an energetic interpretant, i.e., is interpreted in an action or deed. All signs that have an energetic interpretant also have an emotional interpretant, for actions are always accompanied by feelings; but some signs, such as imperative signs, have *only* emotional and energetic interpretants. A sentence in the indicative mood has a logical interpretant, for it is interpreted in a thought or sign. All signs that have logical interpretants also have emotional and energetic interpretants, for thoughts must be accompanied not only by feelings (what in 1868 Peirce had called the “material quality of a mental sign,” see *supra*, §2.2), but also by some sort of action (at least, the action consisting in the recognition of the thought). By contrast, not all signs have logical interpretants; only concepts or symbols have such sorts of interpretants.

Peirce scholars have debated as to whether the 1907 triad of emotional, energetic, and logical interpretant should be considered as a variant of the earlier triad of immediate, dynamic, and final interpretant, or whether they are two distinct triads of interpretants.²¹ In fact, “Pragmatism” offers no other typology of interpretants besides this one, which circumstance might suggest that “emotional,” “energetic,” and “logical” are nothing more than new labels for old concepts. Short has convincingly argued that the two triads “are so different, they do not compete or conflict; one could be neither a revision of nor a replacement for the other” (1996, 495). In support of this position, Short cites the 1904 letter to Welby and the 1906 “Prolegomena.” In the letter, Peirce says (in a passage already quoted) that “[i]n regard to their immediate interpretants signs (in a broader sense than above so as not to insist on their interpretants being signs) either have Feelings, Experiences, or Thoughts for their interpretants” (RL 463 ISP 30). If we identify the “feeling” with the 1907 emotional interpretant, the “experience” with the dynamic interpretant, and the “thought” with the logical interpretant, then it follows that in 1904 the triad of emotional, energetic, and logical interpretants is a division of immediate interpretants *only*. In like fashion, in the “Prolegomena” Peirce writes that “a Sign has an Object and an Interpretant, the latter being that which the Sign produces in the Quasi-mind that is the Interpreter by determining the latter to a feeling, to an exertion, or to a Sign, which determination is the Interpretant. But it remains to point out that there are usually two Objects, and more than two Interpretants” (1906, 504–505). Again, if we identify the “feeling” with the emotional interpretant, the “exertion” with the dynamic interpretant, and the “sign” with the logical interpretant, then the conclusion follows that among the things that “remain to be pointed out” is a *distinct* division of interpretants, which Peirce then proceeds to explain and which is the triad of immediate, dynamic, and final interpretants.²²

But not only is there textual evidence that the two triads are different and not in conflict. Moreover, Short argues, they *must* be different, for each expresses a distinctively important aspect of Peirce's sign theory: while the former triad expresses the "breadth of Peirce's later semeiotic" (Short 1996, 495), for it allows things other than thoughts to be considered as interpretants, the latter expresses "the essential structure of Peirce's later semeiotic" (1996, 496), for sign-action is, for Short, essentially purposive, and the "modal gradation" among interpretants (the immediate as potential, the dynamic as actualization of the potentiality, and the final as realization of the sign's purpose) reflects this in an important way. Therefore, Short concludes, to "abandon either trichotomy (for example, by confusing one with the other) would therefore be to lose sight of an important aspect of Peirce's semeiotic: either its reach or its grasp" (*ibid.*).

Short's arguments are certainly convincing. In particular, he is certainly right that the triad of emotional, energetic, and logical interpretants (introduced, though not then labeled so, in 1904) was the instrument for a broadening of the semiotic horizon. As we have seen above, when Peirce wrote to Lady Welby that the act of assertion is not a pure act of signification, what he meant was that the interpretant of an assertion is not a thought or sign, but an act (the act of taking responsibility of the truth of the proposition asserted). Thus, the trichotomy according to the immediate interpretant communicated to Welby in 1904 was, at least initially, intended as the instrument for the formal distinction between the proposition (whose interpretant is a thought or sign) and the assertion of the proposition (whose interpretant is an act or event). By July 1905 this trichotomy had evolved into that comprising "pathosemes," "ergosemes," and "logosemes," and in the October 13, 1905, and March 31, 1906, schemes, reproduced and commented above, it was re-located at the level of the dynamic interpretant, thus leaving to the immediate interpretant the distinction between the different illocutionary forces (interrogative, imperative, and indicative). Finally, in August 1906 the illocutionary trichotomy itself was re-located at the level of the dynamic interpretant, because the distinction between the matter of this interpretant and the manner of its determination by the sign had allowed enough space for both the illocutionary and the perlocutionary trichotomies.

If this is accepted as a correct reconstruction of the "pre-history" of the triad of emotional, energetic, and logical interpretants, then it has also to be accepted that *both* this latter triad and the triad of immediate, dynamic, and final interpretants were instruments for the broadening of the semiotic horizon, namely *the instruments by which speculative grammar came to include a pioneering speech act theory*. For the *general* distinction between the immediate, the dynamic, and the final interpretant was needed in order to differentiate the illocutionary, the perlocutionary, and the locutionary levels of analysis, while the *specific* distinction between the emotional, the energetic, and the logical interpretant was needed in order to provide, from

1905 onwards, a typology of perlocutionary effects. Thus, a simpler explanation of the theoretical need of keeping the two triads of interpretants distinct (i.e., simpler than Short's) would be to say that the two triads do not compete or conflict because the one is intended to provide a taxonomic differentiation between different theoretical levels of analysis (the locutionary, the illocutionary, and the perlocutionary), while the other is intended to provide a typology of signs within one of these levels, namely a typology of perlocutionary effects.

However, the triad of interpretants, at least as it is presented in the 1907 article on pragmatism, is manifestly more than a mere typology of perlocutionary effects. It can also hardly be considered as a typology of illocutionary effects, for while the distinction between imperative and indicative sentences can be framed in terms of illocutionary force, a piece of music can barely be said to possess an illocutionary dimension. The 1907 triad, though certainly a product of Peirce's 1905–1906 speech act theoretical investigations, seems principally intended to account for the distinction between intellectual signs, or signs whose interpretant is logical, and other kinds of signs (provided that "sign" is taken in a broader sense than it usually is, as already Peirce had suggested to do in 1904 while introducing the ancestor of that triad in the letter to Welby). As such, the 1907 triad certainly expresses the breadth of Peirce's semiotics. Yet, it is difficult to see how it could fit with the finer distinctions that we find in Peirce's previous taxonomic experiments. As Short acknowledges, in "Pragmatism" Peirce "wished to focus on just the one type of interpretant named 'logical.' For that purpose, it was convenient to label the three alternatives" (2007, 180). And the reason of the focus is that the maxim of pragmatism, which Peirce had stated in 1878 and which he is about to re-state in the present context, only concerns intellectual signs, i.e., signs whose interpretant is logical.

Not all signs have logical interpretants, but only "intellectual concepts and the like" (R 318 CSP 46 ISP 304). We know that a concept is, for Peirce, a symbol, and as such is general, for symbols are general signs. Now, to predicate a concept of an object—to say that a certain symbol is applicable to it—is to declare "that a certain operation, corresponding to the concept, if performed upon that object, would [. . .] be followed by a result of a definite general description" (R 318 CSP 48–49 ISP 306–307). To say that something is a poison is to say that the operation of ingesting it would kill me. The result of the operation which constitutes the meaning or logical interpretant of the symbol is, however, neither a future individual event nor the total sum of future individual events: it is a *kind* of future event, and as such is *general*. The meaning of a symbol is thus the conception of certain general consequences of certain operations, and to know the meaning of a symbol is to know what results of a certain general description would follow were certain operations performed upon the object to which the symbol is applicable. The conception of those consequences is the logical interpretant of the symbol, or as Peirce also says, its *meaning*. In the sense in which

the logical interpretant of a sign is its meaning, musical airs and commands have no meaning, but only emotional and energetic interpretants, respectively. If we wish to avoid the conclusion that non-intellectual signs have no meaning, we may say that only intellectual concepts have an intellectual or general meaning, for their meaning is the conception of certain general consequences.

Now, the knowledge that some *general* event would happen under certain circumstances is equivalent to the *habit* of expecting that event to happen in those circumstances. For what would it mean that I am in possession of the knowledge that poison kills if ingested if not that I have formed the habit of not ingesting it if do not want to die? To say that I know what something *x* is, is to say that I have formed the habit of acting in certain ways when confronted with something which I know to be *x*. Thus, the real meaning of that conception is not merely the conception of the consequences of certain operations upon the object, but the *habit* of acting or not in certain ways, or expecting or not certain results, according to the conception of those consequences.

The pragmatic maxim, as stated in 1878 (*supra*, §2.1), consisted in the claim that the conception of an object is the conception of the experienceable effects of that object. The conception of these effects is the logical interpretant of that conception. But, Peirce now realizes, it is no explanation to say that the meaning of a conception is a conception. The reason is that since a conception is a sign (and more precisely, a symbol), it will in its turn have a conception (a symbol) as its logical interpretant:

I do not deny that a concept, proposition, or argument may be a logical interpretant. I only insist that it cannot be the final logical interpretant, for the reason that it is itself a sign of that very kind that has itself a logical interpretant. The habit alone, though it may be a sign in some other way, is not a sign in that way in which that sign of which it is the logical interpretant is the sign.

R 318 CSP 75–76 ISP 334–335

The actual effect that a sign produces cannot evidently be its logical interpretant, because it lacks the necessary generality, which the concept of those effects, by contrast, does possess. But the concept of those effects is the logical interpretant of the sign only in an imperfect manner. The “final” logical interpretant is the habit that that conception is calculated to produce. Here Peirce is implicitly resorting to his distinction between the immediate and the final (earlier also called “signified,” “representative,” and “normal”) interpretant of a sign. The immediate interpretant is the interpretant as the sign represents it to be; the final interpretant is the interpretant which the sign ought to represent if things were subjected to sufficient scientific (i.e., logical) consideration. Thus the conception of the effects of an object can be said to be the *immediate logical interpretant* of that concept, while the

habit that that concept produces is the *final logical interpretant* of it. Having drawn this further distinction, Peirce is now prepared to offer to his readers a re-statement of the pragmatic maxim:

the most perfect account of a concept that words can convey will consist in a description of the habit which that concept is calculated to produce. But how otherwise can a habit be described than by a description of the kind of action to which it gives rise, with the specification of the conditions and of the motive?

R 318 CSP 76–77 ISP 335–336

Or, as he had put it in the 1905 “Issues of Pragmatism,”

[t]he entire intellectual purport of any symbol consists in the total of all general modes of rational conduct which, conditionally upon all the possible different circumstances and desires, would ensue upon the acceptance of the symbol.

Peirce (1905b, 481)

In 1878, the pragmatic maxim stated that the conception of an object is the conception of the experienceable effects of that object. The conception of these effects, Peirce now sees, is only the *immediate* logical interpretant of that conception. But as a logical interpretant is a conception, it will in its turn have a conception as its logical interpretant. Thus, that conception cannot be the final logical interpretant. Only the habit can be such a final logical interpretant of a conception, because the habit is not a conception in the same sense in which the conception that has produced it is. Now, a habit is nothing more than the disposition to act in certain ways under certain conditions. Thus, in order to specify the content of a habit we have to specify the kind of action to which it would give rise were those conditions fulfilled. This is not to reduce the habit to its effects, however: for the effects are individual, and no total sum of effects can ever exhaust the content of a habit. The description of the effects of an intellectual concept cannot specify its full meaning. Rather, “[t]he meaning of an intellectual concept consists in the *general* manner in which it might modify deliberate conduct” (R 330 ISP 2, emphasis added), and the “general manner” of modifying conduct is precisely the habit.²³

8.4 Ten trichotomies (II)

After a two-year interruption, in December 1908 Peirce resumes his taxonomic investigations. He produces a tenfold classificatory scheme of signs, and writes about it to Lady Welby.²⁴ Under several respects, the scheme matches with the preceding ones. But under other respects, the 1908 scheme contains remarkable innovations. The most important of these concerns the

trichotomy according to the immediate object. In order to understand what the new trichotomy was intended to encompass, it is requisite that we preliminarily understand what a “continuous predicate” is.

8.4.1 *Continuous predicates*

A continuous predicate is that which remains in a proposition when anything that can be given in collateral observation is removed from it. This idea gains special prominence in Peirce’s thought in 1908. Thus he writes to Lady Welby on December 14:

When we have analyzed a proposition so as to throw into the subject everything that can be removed from the predicate, all that it remains for the predicate to represent is the form of connection between the different subjects as expressed in the propositional *form*. What I mean by “everything that can be removed from the predicate” is best explained by giving an example of something not so removable. But first take something removable. “Cain kills Abel.” Here the predicate appears as “_ kills _.” But we can remove killing from the predicate and make the latter “_ stands in the relation _ to _.” Suppose we attempt to remove more from the predicate and put the last into the form “_ exercises the function of relate of the relation _ to _” and then putting the function of relate to the relation into another subject leave as predicate “_ exercises _ in respect to _ to _.” But this “exercises” expresses “exercises the function.” Nay more, it expresses “exercises the function of relate,” so that we find that though we may put this into a separate subject, it continues in the predicate just the same. Stating this in another form, to say that “A is in the relation R to B” is to say that A is in a certain relation to R. Let us separate this out thus: “A is in the relation R^1 (where R^1 is the relation of a relate to the relation of which it is the relate,) to R to B.” But A is here said to be in a certain relation to the relation R^1 . So that we can express the same fact by saying “A is in the relation R^2 to the relation R^1 to the relation R to B,” and so on *ad infinitum*. A predicate which can thus be analyzed into parts all homogeneous with the whole I call a *continuous predicate*. It is very important in logical analysis, because a continuous predicate obviously cannot be a *compound* except of continuous predicates, and thus when we have carried analysis so far as to leave only a continuous predicate, we have carried it to its ultimate elements.

SS 71–72²⁵

According to Peirce, a proposition has a certain number of subjects and one predicate. For example, the proposition “Cain kills Abel” has two subjects (“Cain” and “Abel”) and one predicate (“_ kills _”). This is but *one* possible analysis or “decomposition”²⁶ of the proposition. Other decompositions are also possible. One can, for example, consider “Cain” as the subject and “_

kills Abel” as the predicate, or “Abel” as the subject and “Cain kills _” as the predicate. What the predicate is simply depends on what we choose to consider as a subject. Since the subject of a proposition is, in sign-theoretical terms, its “object,” and since the object of any sign whatever is what has to be given through collateral observation and which the sign cannot by itself express, while the interpretant of a sign is everything which the sign says of the object, it follows from the possibility of multiple decompositions of a proposition that the line of demarcation between the object of a sign and its interpretant can shift. This does not mean that no line of demarcation between object and interpretant (in the case of propositions, between subject and predicate) can be determined in every special case, however. As Peirce writes in some “Notes for a letter to Samuel Barnett” composed in December 1909:

The determination by a Sign of its Interpreting Mind,—i.e. the idea that mind gets, or the feeling it sets up, or the action it stimulates, I call its “Interpretant”; and there is all the difference in the world between the *Object* of a sign, of which the Interpreter must have some *collateral* experience, immediate or mediate, or he won’t know at all what it is that the Sign represents [. . .] and whoever questions that point simply fails to understand what I mean by the Object, and confounds it with the Interpretant. The latter is *all* that the sign *conveys*. The Object is the otherwise known something concerning which what it conveys relates. The distinction is a *real* distinction and yet it is *purely relative*, in the sense that the line of demarcation between the two can just as well be drawn in one place as another. [. . .] The point is that the artificiality of a line of demarcation does not prove that the *twoness* of the parts that line of demarcation may be regarded as separating does not correspond to any twoness *in re*.

RL 36 ISP 13

The possibility of having multiple decompositions of one and the same proposition does not entail that there is no real distinction between the parts into which it is decomposed. In each case, decomposition yields distinct parts, and these are the parts that in that case compose the whole. Thus, if we choose to decompose “Cain kills Abel” into the subjects “Cain” and “Abel” (which are then the objects of the sign, i.e., those things which the sign is about and which must be given by collateral observation) and the predicate “_ kills _” (which is then the interpretant of the sign, i.e., that which the sign says of its object, which needs not to be given by collateral observation), to this specific decomposition there correspond two distinct parts of the sign (a subject and a predicate), and these are the real parts of the sign according to this decomposition. The fact that different decompositions into parts are possible does not entail that there is no distinction between the parts obtained by decomposition.

However, Peirce is convinced that an “ultimate” decomposition or analysis of the proposition exists. This ultimate analysis is that which throws into the subject everything that can be given by collateral observation: “the proper way in logic is to take as the subject whatever there is of which sufficient knowledge cannot be conveyed in the proposition itself, but collateral experience on the part of its interpreter is requisite” (NEM 3:885, 1908). “The proper way” to analyze the proposition “Cain kills Abel” is to take “kills” as one of its subjects. For this purpose, hypostatic abstraction, i.e., the logical operation that turns predicates into subjects, is required.

By hypostatically abstracting the verb “_ kills _” from the proposition “Cain kills Abel,” the proposition becomes “Cain is to Abel in the relation of killing.” Now, the predicate of this second version of the proposition is “_ is to _ in the relation of _.” If we try to analyze this predicate further, i.e., if we try to hypostatically abstract the concept of relation, we obtain the proposition “Cain is to Abel in relation to the relation of killing,” in which the predicate is “_ is to _ in relation to _ of _.” But this latter predicate simply means “_ is to _ in the relation of _”: making “relation” a further subject has resulted in essentially the same predicate, for both predicates express the same concept, that of “being related to.” Only, the latter is redundant. Hence, it was in the preceding step that we already came to the end of logical analysis: the end of analysis is reached when further steps produce redundancy only.

Those predicates that remain after everything that could be given in a collateral experience has been removed are called by Peirce “continuous predicates.” This expression is chosen to establish an analogy with Peirce’s notion of continuity. As is well known, continuity is something of which Peirce had been trying his whole life to provide a definition and a mathematical expression.²⁷ After rejecting the view that continuity is infinite divisibility (maintained until 1884) and that it is Cantor’s perfect concatenation (with which he was somewhat sympathetic in the period 1884–1892), Peirce comes to understand a continuum as a supermultitudinous multiplicity composed of parts all homogeneous with the whole. The parts of a continuous line are continuous lines themselves, and the same is true of the parts of each part. Accordingly, continua cannot be composed of actual, definite point-like parts, for a point is precisely something without parts; a continuum is instead composed of potential and indefinite parts, and it always contains a multiplicity of such parts that exceeds any multitude. When a potential point in a continuum becomes actual, a topical singularity emerges, and continuity breaks off. A perfect continuum is one without such topical singularities.²⁸

Now, it is in this sense that Peirce says that a continuous predicate is analyzable only into parts that are homogeneous with the whole. In the logical decomposition of a proposition there is a point beyond which nothing new is reached but redundancy. Peirce proves this by showing that what results

from the hypostatic abstraction of a continuous predicate contains that very element that was supposed to be thereby abstracted. So if we attempt to analyze “to be in relation to” as “to be in some relation to the relation to,” we find that the very concept we wanted to analyze (“being related to”) remains intact in the elements into which we have analyzed it (“being related to the relation to”). To express this peculiar notion of *unanalyzability* or *elementarity*, Peirce uses the analogy with continuity: just as no matter what one cuts off from a continuous line, a continuous line remains, in like manner no matter what one cuts off (abstracts) from a continuous predicate, a continuous predicate remains. These predicates are *simple* and cannot be further analyzed, so that when the logical analysis of the proposition has thrown into the subject all that can be removed from the predicate (i.e., all that which can be given in collateral observation) what remains is a not-analyzable predicate, a pure form of connection. A predicate so unanalyzable or, *which is the same*, analyzable only as composed of parts homogeneous with itself, is termed a continuous predicate. As such, continuous predicates mark the end of logical analysis.²⁹

The method of reasoning by which Peirce came to the idea of an ultimate or continuous predicate in 1908 is the same as that by which he came to the idea of an ultimate or logical leading principle in 1866. Exactly as with continuous predicates, one can remove (abstract) from a leading principle as much as can be removed (abstracted), but once a pure logical principle is found, analysis must stop: the pure logical form of reasoning always remains unanalyzed. Just like a continuous predicate, a logical leading principle is proved valid through itself, and adding it as a further premise does not modify its primitive logical structure. In a very important sense, then, the early idea of a logical leading principle can be considered as the antecedent of the mature idea of a continuous predicate. As Peirce writes to James in 1909, “I find myself bound, in a way which I discovered in the sixties, to recognize that there are concepts which, however we may attempt to analyze them, will always be found to enter intact into one or the other or both of the components into which we may fancy that we have analyzed them” (NEM 3:851). Leading principles and continuous predicates behave precisely the same with respect to logical analysis: they are “elementary” or “unanalyzable” logical forms that are found to enter intact into the parts into which we try to analyze them.³⁰

8.4.2 *The scheme of December 1908*

On December 23, 1908, Peirce sends a letter to Lady Welby in which a new taxonomy of signs is outlined. However, in this letter only three out of ten trichotomies are explained in some detail; four others are only mentioned, while the remaining three are passed over in silence. The letter contains the statement of the two important rules of semiotic compossibility (R1 and R2), which I have already discussed in the previous Chapter. A more

detailed treatment of the ten trichotomies is contained in several letter drafts written between December 24 and 28, and thus, apparently, after the letter was sent. In these drafts, the full system is presented, and an application of the rules of combination to the first two trichotomies is included.³¹

In the December 23 letter, the outline of the classification is preceded by the definition of sign and by a presentation of the three categories (here designated as three “universes” corresponding to three “modalities of being”³²):

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.

SS 80–81

The object is *represented*, not *determined*, by the sign. Should a sign be able to determine its object by representing it, the difference between reality and fiction would vanish, because the object would then be as the sign represents it to be. But the object of a sign is the thing that determines the sign to represent it, and is as it is independently of being represented by the sign. By contrast, the interpretant is determined by the sign (and, through the sign, by the object) to represent the object as the sign does, and thus it *is* as the sign represents it to be. With respect to the sign, the object is active (it determines the sign without being determined by it), while the interpretant is passive (is determined by the sign without determining it).

Peirce adds that his “insertion of ‘upon a person’ is a sop to Cerberus, because I despair of making my own broader conception understood” (SS 81).³³ The “broader conception” of the effect of a sign is not limited to the cases in which the sign is interpreted by human beings, but embraces all effects that the sign *qua* medium might determine. As Peirce had declared in the *Syllabus*, thought is the chief, but not the only, mode of representation. Given Peirce’s anti-psychologistic view of logic, anything has to be considered as a sign which conforms to the sign definition; and the sign definition, unless a concession to psychologism is granted (the proverbial “sop to Cerberus”), makes no reference at all to the fact that the effect of the sign (the interpretant) is an effect on human beings or is interpreted in human thought. Thus, to return to the example of the *Syllabus*, if a sunflower, in turning toward the sun, thereby reproduces another sunflower to turn toward the sun, then the sunflower satisfies the definition of “sign,” and can be said to be a sign of the sun. After all, Peirce’s broader conception of sign (which now includes signs with emotional interpretants, like musical airs, and signs with energetic interpretants, like commands, along with signs with logical interpretants, like concepts) requires and is required by a broader conception of the effect of a sign.³⁴

The three categories or “universes” are distinguished by three modalities of being. The first is the universe of ideas (firstnesses), whose mode of

being is that of “possibility.” The second is the universe of objects and facts (secondnesses), whose mode of being is that of actuality or “existence.” The third is the universe of habits and laws (thirdnesses), whose mode of being is that of “necessity” (SS 81–82). Signs may have one of the three modes of being (i.e., may belong to one of the three categories) in themselves, in relations to their objects, and in relation to their interpretants.

To begin with, in itself a sign may be a “tone” (if it has the mode of being of possibility), a “token” (if it has the mode of being of actuality), or a “type” (if it has the mode of being of necessity). The names of the three members of this trichotomy distinctly coincide with those of the *Logic Notebook* scheme of March 31, 1906 (cf. *supra*, §8.2). In the letter drafts, the members of this trichotomy are re-labeled “potisigns,” “actisigns,” and “famisigns,” respectively (RL 463 ISP 135, 151)

Peirce then distinguishes in the usual manner the immediate from the dynamic object of a sign: “The Mediate Object is the Object outside of the Sign; I call it the *Dynamoid* Object. The Sign must indicate it by a hint; and this hint, or its substance, is the *Immediate* Object” (SS 83). The dynamic object is the object that the sign represents, and whose being is independent of being represented by the sign. The immediate object is the manner in which the sign indicates the dynamic object. The dynamic object can either be a possible object (and the sign is in that case an “abstractive”), an actual object (and the sign is then a “concretive”), or a necessary object (and the sign is then a “collective”). The immediate object can likewise be a possible object (and the sign is in that case “descriptive”), an actual object (and the sign is then a “designative”), or a necessary object (and the sign is then a “copulant”).

Now, while the trichotomy of signs according to the (nature, or mode of being, of the) dynamic object is precisely the same as we find in Peirce’s previous taxonomies, the trichotomy according to the immediate object has changed. We know that, from its appearance in the 1904 letter to Welby (*supra*, §8.1) to the classificatory schemes of 1906 (*supra*, §8.2), the trichotomy according to the sign’s immediate object is stably into vague, actual, and general signs, and we observed that this is in fact the traditional division of propositions into particular, singular, and universal. We also know that in the 1907 article on pragmatism (*supra*, §8.3) Peirce describes the immediate object as the “idea” upon which the sign is built, meaning that the universe of discourse to which a sign refers has to be identified through collateral observation, and that only after it has been identified the sign can directly refer to an object of it (in singular signs) or quantify over it (in particular and universal signs); in either case, the manner in which the dynamic object is given is the immediate object of the sign. The new trichotomy according to the immediate object that Peirce communicates to Welby in the letters of December 1908 constitutes a further shift of doctrine.

Here is a passage from the letter draft concerning the trichotomy according to the immediate object:

On the other hand, the distinction of *Designatives* such as concrete subjects of signs or essentially nominative signs, *Descriptives* such as Predicates and Predicative Signs (such as a portrait with a legend designating the person represented), with Abstract nouns to be reckoned among Descriptives. The Copulants are likewise indispensable and have the property of being *Continuant*. What I mean is that the sign “A is red” can be decomposed so as to separate “is red” into a Copulative and a Descriptive, thus: “A possesses the character of [R]edness”[.] But if we attempt to analyze “possesses the character” in like manner, we get “A possesses the character of the possession of the character of Redness”; and so on *ad infinitum*. So it is, with “A implies B”[.] “A implies its implication of B,” etc. So with “It rains and hails” or “It rains concurrently with hailing”[.] “It rains concurrently with the concurrence of hailing” and so forth. I call all such signs Continuants. They are all Copulants and are the only *pure* Copulants. These signs *cannot be explicated*: they must convey Familiar universal elementary relations of logic. We do not derive these notions from observation, nor by any sense of being opposed, but from our own reason.

RL 463 ISP 137

When the object is known by collateral observation only in its characters, the sign is said to be a “descriptive.”³⁵ In the December 24–25 draft Peirce writes that descriptive signs “determine their Objects by stating the characters of the latter” (RL 463 ISP 136), “telling what the characters of its Object are, or some of them, but not indicating where in the world such an Object is to be found; as the predicate of a proposition does (aside from any assertoric force it may have)” (RL 463 ISP 152). When the object is known by collateral observation in a non-descriptive manner, the sign is said to be a “designative” or “denotative,” which “like a Demonstrative pronoun, or a pointing finger, brutally direct the mental eyeballs of the interpreter to the object in question” (RL 463 ISP 136). Take the proposition “Cain kills Abel.” What we would consider its ordinary subjects are “Cain” and “Abel.” These are objects that are known by collateral observation in a non-descriptive manner. With regard to Cain and Abel, therefore, the proposition “Cain kills Abel” is a designative sign. Further, when what we would ordinarily consider the predicate of this proposition, the dyadic rheme “_ kills _,” is hypostatically abstracted and turned into a further subject, it becomes one of the objects of the proposition. But this object, unlike the previous ones, is known descriptively: the rheme “_ kills _” does in fact “tell what the characters of its Object (Cain and Abel) are” without however “indicating where in the world such an Object is to be found,” as its two blanks sufficiently show. Thus, when the predicate is turned into a further subject, the proposition is found to have three objects, two of which are known non-descriptively but directly or “denotatively” (Cain and Abel), and one of which is known descriptively (the relation of killing). The proposition is thus

a “designative” with respect to the objects that it directly denotes (Cain and Abel) and a “descriptive” with respect to the object that it denotes by means of characters (the relation of killing). Obviously, a sign cannot be at once descriptive and designative in the same respect. But a sign can be descriptive in one respect (typically, when one or more of its objects is a hypostatically abstracted predicate) and designative in others (typically, when one or more of its objects is directly referred to by a proper name, a demonstrative pronoun, etc.).

In the third place, when the object is neither known descriptively nor denotatively, the sign is said to be a “copulant”: copulant signs “neither describe nor denote their Objects, but merely express [with] universality [the] logical sequence of these latter upon something otherwise referred to” (RL 463 ISP 136); that is, they “merely express its logical relation as combining parts of that Object in particular ways” (RL 463 ISP 152). Copulant signs are, quite clearly, those signs whose immediate object is a continuous predicate. Examples of such continuous immediate objects, with respect to which a sign is said to be a copulant, include “_ is _,” “if _ then _,” “_ relatively to _ for _,” “Whatever _,” etc. These are continuous predicates in the sense explained (*supra*, §8.4.1), i.e., they are analyzable only into parts that are homogeneous with the whole. When everything which can be given in a collateral observation, whether a predicate-descriptive or a subject-designative, is hypostatically abstracted from the proposition, what remains is the pure form of connection of the elements so abstracted. A continuous predicate is an immediate object of the proposition only in the sense that it is what remains when all its immediate objects are hypostatically abstracted from it, i.e., only in the sense that it represents the manner in which the proposition’s objects are put together.

How is the new <descriptive, designative, copulant> trichotomy related to the older <vague, singular, general> trichotomy? There is evidence that Peirce intended the former to not merely replace the latter, but to embrace it as a special case. One piece of evidence comes from what Peirce says of the copulant sign in the letter actually sent: “if the Immediate Object is a Necessitant, I call the sign a *Copulant*; for in that case the Object has to be so identified by the Interpreter that the Sign may represent a necessitation” (SS 84). The reference to the role of the interpreter as that which has the right to identify the object of the sign is a clear indication that what is meant is the game-theoretical characterization of the universal quantifier. And if the 1908 copulant sign corresponds *in some sense* to the 1905 general sign, then it is reasonable to assume that *in the same sense* descriptive and designative signs correspond to vague and singular signs, respectively. Another piece of evidence comes from what Peirce says of copulant and descriptive signs in the letter draft. In the context of a long paragraph devoted to explaining to Lady Welby the difference between a sign which is general in itself (a “legi-sign”; in later terminology, a “type” or “famisign”) and a sign whose object is general (a “symbol”), Peirce mentions that while the universal proposition

“Any S is P ” is a copulant sign, the particular proposition “Some S is P ” is a descriptive sign (RL 463 ISP 140, 142). A further piece of evidence comes from Peirce’s remarks later in the letter draft that the new term “copulative” is a bad one, and that the old “distributive” is much better (RL 463 ISP 143). All this strongly suggests that the new trichotomy <descriptive, designative, copulant> was intended by Peirce as a re-formulation and generalization of the older trichotomy <vague, singular, general>. Let us take again the proposition “Cain kills Abel.” In this proposition, we can isolate three kinds of elements. First, its subjects “Cain” and “Abel.” These are, according to the 1904–1906 terminology, singular immediate objects, and the proposition is singular with respect to them; in the 1908 terminology, they are designative immediate objects, and the proposition is designative with respect to them. In the second place, let us consider its predicate, the dyadic rheme “_ kills _”; when hypostatically abstracted, this becomes a further immediate object of the proposition. In itself, however, this rheme is vague, as all rhemes are, for it does not state what its objects are. If we were to fill its blanks with subjects, these could only be indeterminate subjects: “*something* kills *something*.” A rheme is, we could say, always implicitly existentially quantified.³⁶ But this amounts to saying that, in itself, a rheme is always equivalent to a particular proposition, i.e., to the proposition obtained by existentially quantifying each of its blanks. A rheme is therefore, according to the 1904–1906 terminology, a vague immediate object, and the proposition is vague with respect to it; in the 1908 terminology, it is a descriptive immediate object of the proposition, and the proposition is descriptive with respect to it. The third kind of element in the proposition is its “continuous predicate,” i.e., that which remains after all other kinds of elements (designative/singular and descriptive/vague immediate objects) have been separated or hypostatically abstracted from it. A continuous predicate, Peirce says, expresses “universal elementary relations of logic,” i.e., relations that apply generally to their objects. One of these is the universal quantifier “Whatever _” or “Any _,” which is explicitly universal in that it is the prototype of the universal sign. But there are others, such as the conditional form “If _ then _,” which are not, properly speaking, markers of universal quantification, and yet represent implicitly universally quantified relations. The “universal sequence” “If A then C ” indeed means that in every state of things whatever, either not- A or C is true (RL 463 ISP 140). The same should be true of other continuous predicates; for example, the continuous relation of identity “_ is _,” or “_ is identical to _,” is in fact an implicitly universally quantified relation, meaning “in every state of things whatever, if _ is identical to _, then _ is identical to something which is identical to _”; likewise, the continuous relation “_ is in relation to _” bears in fact an implicit universal quantification in that it is equivalent to “in every state of things whatever, _ is in relation to something which is in relation to _”; and so on. The 1908 “copulant” sign thus appears to be a generalization of the 1904–1906 “general” or “distributive” sign; while the latter was

intended to include the universal quantifier only (“Whatever _,” “Any _”), the former is intended to embrace all sorts of continuous predicates, for these are all implicitly universally quantified (they express, in Peirce’s words, “universal logical sequences”), including of course the universal quantifier itself, which remains the prototype of the “copulant sign.”

The three trichotomies <tone, token, type> (in the draft re-labeled <potisign, actisign, famisign>), <abstractive, concretive, collective>, and <descriptive, designative, copulant> are the only ones that in the letter actually sent and in its successive drafts Peirce discusses in some detail. In the letter, Peirce enounces the two rules, which we have already encountered, that “a possible [first] can determine nothing but a Possible [first]” (R1) and that “a Necessitant [third] can be determined by nothing but a Necessitant [third]” (R2) (SS 84). Then he observes that, given the ten trichotomies of signs (of which the three just mentioned are part), if the parameters specified by the ten trichotomies were all independent from one another, they would determine 59,049 combinations. But since the parameters specified by the ten trichotomies are not independent (because of R1 and R2), the total count is reduced to sixty-six combinations. As Weiss and Burks (1945), Short (2007), and Burch (2011a) have shown, R1 and R2 are necessary and sufficient to determine the sixty-six combinations (classes of possible signs) out of the 59,049 possible combinations. The determination depends, as we have already noticed, on the possibility of ordering the ten trichotomies, for R1 and R2 presuppose that the trichotomies are linearly ordered. Though Peirce did manage to offer a provisional ordering of his final scheme with ten trichotomies (see below), he did not even attempt to derive the sixty-six classes of signs by systematic application of R1 and R2 to the trichotomies so ordered.³⁷

What he did attempt to do is to determine what classes of signs result if one takes into account two trichotomies only, that according to the sign itself (<potisign, actisign, famisign>) and that according to the sign’s immediate object (<descriptive, designative, and copulant>). This reminds us of the 1904 letter to Welby, in which a similar attempt was made (cf. *supra*, §8.1). By mere combinatorics, the classes resulting would be nine in total:

potisign descriptive
 actisign descriptive
 famisign descriptive
 potisign designative
 actisign designative
 famisign designative
 potisign copulant
 actisign copulant
 famisign copulant

Of these nine, only six satisfy the requirements specified by R1 and R2. The problem of determining the six classes, however, depends on the relative ordering of the two trichotomies.

The method employed for finding the classes of possible signs is, in the December 1908 letter draft, partly *a posteriori* and partly *a priori*. On the one hand, Peirce seeks to find examples of existing signs which belong to one of the nine possible combinations; since an existing sign is also a possible sign, these will certainly represent classes of possible signs. On the other hand, he assumes a certain relative ordering between the two trichotomies in question and then proceeds to exclude the combinations which, according to R1 and R2, denote classes of impossible signs.

Peirce's *a posteriori* method allows him to isolate three classes of possible signs. First, an actisign which is a designative exists; a pointing finger is an instance of such class of signs: it is an actisign, because in itself it has the mode of being of existence (it is an actual occurrence and not a type); it is a designative, because it indicates its object without describing it. Thus the class of designative actisigns is a possible one (RL 463 ISP 138). Secondly, a potisign which is a descriptive exists; a geometrical diagram is an instance of it: it is a potisign, because in itself it has the mode of being of possibility (it can be imagined without being supposed to exist); it is a descriptive, because it describes its object without indicating it. Thus the class of descriptive potisigns is also a possible one (RL 463 ISP 140). Thirdly, a potisign which is copulant exists: a geometrical theorem (like "the sum of the internal angles of a triangle is equivalent to two right angles") is such a sign: it is a copulant sign because it expresses a universal truth of Euclidean geometry; it can be a potisign because it can be expressed in a geometrical diagram, and geometrical diagrams are potisigns. Therefore, the class of copulant potisigns is also a possible one (*ibid.*).

The *a priori* method begins with the sign definition, according to which it is the object that determines the sign. Accordingly, the trichotomy relative to the immediate object (<descriptive, designative, copulant>) precedes in order the trichotomy relative to the sign itself (<potisign, actisign, famisign>). The application of R1 allows us to exclude the possibility of descriptive actisigns and of descriptive famisigns. The application of R2 allows us to exclude the possibility of descriptive famisigns (already excluded by R1) and of designative famisigns (RL 463 ISP 141–142). No other combinations are excluded as impossible by the rules. Therefore, the remaining six combinations (three of which have been found to exist, and thus to be possible *a posteriori*), represent classes of possible signs:

- copulative potisigns (or, in the 1903–1906 terminology, general qualisigns)
- designative potisigns (singular qualisigns)
- descriptive potisigns (vague qualisigns)
- copulative actisigns (general sinsigns)
- designative actisigns (singular sinsigns)
- copulative famisigns (general legisigns)

The determination of the six combinations representing classes of possible signs is based on the possibility of finding a way of linearly ordering the trichotomies. In the letter actually sent to Welby, Peirce suggests that

the principle of ordering has to be based on the relation of determination of sign, object, and interpretant. The relation of determination is that the object determines the sign and the sign the interpretant. More precisely: the dynamic object determines the immediate object, which in turn determines the sign, which in turn determines the “destinate” (final) interpretant, which in turn determines the “effective” (dynamic) interpretant, which in turn determines the “explicit” (immediate) interpretant (SS 84). Consequently, the corresponding trichotomies should be ordered as follows:

- I. according to the dynamic object
- II. according to the immediate object
- III. according to the sign itself
- IV. according to the final interpretant
- V. according to the dynamic interpretant
- VI. according to the immediate interpretant

Now, since, as we know from previous discussion (cf. *supra*, §8.1 and §8.2) and as Peirce immediately adds, the sign’s relations to its dynamic object and to its dynamic interpretant give rise to two trichotomies respectively, while the sign’s relation to its final interpretant gives rise to three trichotomies, the total number of trichotomies is ten, and not six. However, in the letter actually sent Peirce gives no indication as to where the further four trichotomies are supposed to be placed with respect to the six which he has ordered on the basis of the relation of determination of sign, object, and interpretant. Nor does he clarify the matter in the letter draft, in which the ten trichotomies are presented in a sequence that clearly does *not* correspond to the order of determination suggested in the letter actually sent.

But for the terminological and conceptual innovations which I have already discussed, the tenfold classification of signs contained in the drafts of the letter to Welby written between December 24 and 28, 1908, substantially corresponds to the scheme recorded in the *Logic Notebook* on August 31, 1906 (cf. *supra*, §8.2). Since the classification is spread over several manuscript pages and interwoven with comments and annotations (RL 463 ISP 135–145), I offer the following synoptic scheme.

I. According to the mode of presentation of the sign itself		
Potisign	Actisign	Famisign
II. According to the mode of presentation of the immediate object		
Descriptive	Designative	Copulant
III. According to the nature of the dynamic object		
Abstractive	Concretive	Collective
IV. According to the relation of the sign to the dynamic object		
Icon	Index	Symbol

V. According to the nature of the immediate interpretant		
Hypothetic	Categorical	Relative
VI. According to the nature of the dynamic interpretant		
Sympathetic or Congruentive	Shocking or Percussive	Usual
VII. According to the manner of appeal to the dynamic interpretant		
Suggestive	Imperative	Indicative
VIII. According to the purpose of the final interpretant		
Gratific	To produce action	To produce self-control
IX. According to the nature of the influence of the sign		
Seme	PHEME	Delome
X. According to the nature of the assurance of the sign		
Assurance of Instinct	Assurance of Experience	Assurance of Form

A polished and compact version of this scheme is the following from R 795:

Idea	SIGN Token	Type
Descriptives	OBJECT IMMEDIATE Designatives	Copulatives
Abstractives	DYNAMICAL IN ITSELF Concretives	Complexives
Icons	IN RELATION TO THE SIGN Indices	Symbols
Hypothetics	INTERPRETANT IMMEDIATE Categorics	Relatives
Sympathetic	DYNAMICAL IN ITSELF Percussive	Usual
Ejaculative	IN RELATION TO THE SIGN Imperative	Cognificative
Gratific	RATIONAL IN ITSELF Practical	Pragmatistic
Semes	IN RELATION TO THE SIGN Pemes	Delomes
Assurance of Instinct	IN RELATION TO THE OBJECT Assurance of Experience	Assurance of Form

This scheme is the fruit of researches into the nature and the varieties of signs on which Peirce has been working since the 1860s, and more systematically in the previous five or six years. The first trichotomy, which officially enters the semiotic taxonomy in the *Syllabus* of 1903 (*supra*, §7.3), corresponds to the level of analysis that the scholastics called the *suppositio materialis* of a sign. The second trichotomy, which enters the taxonomy in the 1904 letter to Lady Welby (*supra*, §8.1), is initially the level of analysis at which propositions are distinguished into particular, singular, and universal, but soon becomes the instrument of a more general division of signs according to the manner in which their several objects are given. The third trichotomy, which appears in the classification in 1905 (*supra*, §8.2), is a division of signs according as their dynamic object is an abstract quality, a concrete thing, or an *ens rationis*. The fourth trichotomy is known by Peirce since 1865, and is that into icons, indices, and symbols. The fifth, which enters the classification in 1906 (*supra*, §8.2), is a division of propositions according to their structure (it thus parallels the 1904–1906 division according to the immediate object, which is a division of propositions according to their modes of quantification). The sixth trichotomy is a division of signs on the basis of their perlocutionary effects, while the seventh is a division of signs on the basis of their illocutionary forces. Both the perlocutionary and the illocutionary trichotomies enter the taxonomy in October 1905 (*supra*, §8.2). The eighth trichotomy is the most difficult to interpret: it seems to be linked to neither the illocutionary nor the perlocutionary dimensions of analysis, and yet it is drawn, in 1906, according to the “purpose of the eventual interpretant,” or, in 1908, according to the nature of that interpretant itself. As I argued above (*supra*, §8.2), this trichotomy seems to have the special task of isolating those signs that can be arguments from those that cannot. As such, it somehow overlaps with the ninth. As far as I am aware, Peirce never explains what he meant with his eighth trichotomy. The ninth trichotomy is the old division of symbols into terms, propositions, and arguments. After the first reform of speculative grammar (*supra*, Chapter 6), this trichotomy becomes a division of signs generally, and not merely of symbols. In order to signalize the generalization to which this trichotomy has been subjected, Peirce re-labels its members into “rhemes,” “dicisigns,” and “arguments,” respectively (*supra*, Chapter 7). Dicisigns comprise not only symbolic propositions, but also indexical propositions. But further, since a proposition has to be distinguished from an assertion, and since there exist, beside assertive dicisigns, also interrogative and imperative dicisigns, the concept of dicisign was the object of a further generalization. Accordingly, in 1906 the notion of “pheme” makes its appearance in the classification, as the second member of the trichotomy into “semes,” “phemes,” and “delomes,” which is the terminology still employed by Peirce in 1908. The tenth trichotomy is a division of “delomes” or arguments. Unlike in the *Minute Logic* of 1902 (*supra*, §6.5), and like in the taxonomic scheme recorded in the *Logic Notebook* in August 31, 1906 (*supra* §8.2), here the

three kinds of arguments reflect the order of 1867, namely abduction first, then induction, and then deduction. This trichotomy captures grammatically a distinction which is the principal task of logical critics to draw, namely the distinction of arguments into kinds according to the kind of assurance each professes to provide: an abduction is an argument whose assurance is based on instinct, induction an argument whose assurance is based on experience, and deduction an argument whose assurance is based on forms.

The scheme of classification of signs contained in the letter drafts of December 1908 and reproduced in R 795 can be claimed to contain the last, incomplete attempt at a general classification of signs that Peirce has left us, and thus the most mature stage of development of his theory of speculative grammar. The attempt is incomplete because of the two parts of which the classificatory work consists since the first reform of speculative grammar—first, the determination of the basic trichotomies that specify the semiotic parameters, and second, the determination of the classes of possible signs which result from the combination of the parameters so determined—only the first is properly and fully realized, while the second is barely commenced. In this sense, the only wholly *complete* taxonomy that Peirce has left us (i.e., the only taxonomy in which both tasks are fulfilled) is the one contained in *NDTR* (*supra*, §7.3). But in its incompleteness, the December 1908 scheme is more complete than those of the years 1904–1906, for in this, unlike in those, the problem of determining the classes of possible signs was at least begun.

Almost one year after the final taxonomy of signs, on November 1, 1909, Peirce writes in his *Logic Notebook*:

During the last three years I have been resting from my work on the Division of Signs and have only lately—in the last week or two been turning back to it; and I find my work of 1905 better than any since that time, though the latter doubtless has value and must not be passed by without consideration. Looking over the book labelled in red “The Prescott Book,” and also this one, I find the entries in this book of “Provisional Classification of 1906 March 31” and of 1905 Oct 13 particularly important from my present (accidentally limited, no doubt) point of view; particularly in regard to the point made in the Prescott Book 1909 Oct 28 and what immediately preceded that in that book but is not dated.

R 339 DDR 360r

This annotation is remarkable in a number of ways. In the first place, because it may be misleading: Peirce had been resting from his classificatory work since the end of 1906; but the three years of “semiotic rest” had been interrupted, even though for a brief period of time, by the intense work on the tenfold scheme written in December 1908 for Lady Welby. Perhaps it is to the 1908 tenfold scheme that Peirce is referring in saying that it “doubtless

has value” and “must not be passed by without consideration.” However, that which stands out in this retrospective look on his work on signs are two entries in the *Logic Notebook*, which I have been discussing at some length in what precedes (*supra*, §8.2): the table of October 13, 1905, which was the upshot of the taxonomic experiments carried out between October 8 and October 12, and in which the distinction between the illocutionary and the perlocutionary dimensions receives for the first time a definite taxonomic collocation, and the table of March 31, 1906, which, notwithstanding some obscurities, perfectly matches (as far as the illocutionary and perlocutionary trichotomies are concerned) the scheme of October 13, 1905.

Now, these old but still useful taxonomic schemes are declared to be important in regard to the point made in the *Prescott Book* entry for October 28, 1909, and in some related pages.³⁸ The point made there is titled “Another endeavour to analyze a Sign” (R 277 ISP 78), and is mostly concerned with the problem of defining a “complete” sign: a complete sign, it is said, “has or may have Parts which partake of the nature of their whole; but often in a truncated fashion” (R 277 ISP 77). The reference is of course to the proposition, one of whose parts is the rheme, which in a sense partakes of the nature of the whole (a rheme is a potential proposition), but only in a truncated fashion. In fact, Peirce continues, the problem of the completeness of the sign is not due to its relation to its object (here called its “original”), but to its relation to the interpretant:

A sign is in regard to its Interpretant in one or other of three grades of Completeness, which may be called the Barely *Overt*, the *Overter*, and the *Overtest*. The Barely *Overt* sign, of which a name is an example does not expressly distinguish its Original from its Interpretant, nor its reference to either from the Sign itself. The *Overter* sign of which an Assertion is an example, [*abandoned*]

R 277 ISP 77

The “barely overt sign” is the rheme, which does not distinguish itself from either object or interpretant. The “overter sign” is the proposition, which distinguishes itself from its object but not from its interpretant. The “overtest sign” is the argument, which distinguishes itself from both object and interpretant. But for the bizarre terminological variation, this is a doctrine that Peirce had maintained since 1867. It is thus difficult to see in what sense this point is relevant for Peirce’s retrospective praise of the October 13, 1905, and March 31, 1906, schemes.

The way in which the two schemes are “particularly important” from Peirce’s present, limited point of view has little to do with the definition of a complete sign (and thus the reference to the remarks in the *Prescott Book*, if correct, is a further source of confusion). It has, by contrast, much to do with the question, which as we know was still open as of December 1908, of the possibility of a general method for the determination of the interactions

of the parameters specified by the trichotomies. For here is how the *Logic Notebook* entry for November 1, 1909, goes on:

Namely, a good deal of my early attempts to define the difference between Icon, Index, & Symbol, were adulterated with confusion with the distinction as to the Reference of the Dynamic Interpretant to the Sign. [. . .] The light which the two trichotomies referred to [. . .] throws upon each other suggests a method of study that I have hitherto employed only in getting as clear ideas as I have (and they ought to be more definite) of the 1st and 2nd trichotomies or (using the excellent notation of 1905 Oct 12) A and Ba. I am now applying the same method to Bbβ and Cbβ. It ought to be applied not merely to A and Ba but further to A, Ba, and Ca taken together. Also to A Ba Bbα to A Ba Cbα to Bbα Cbα. Then to A Bβ Ccγ etc. to Ba Bbα Ccα to A Bbα Ccα etc.
R 339 DDR 360r

As I explained, it is in the scheme of October 13, 1905, that the perlocutionary trichotomy officially enters the taxonomic edifice. This division is drawn according to the sign's relation to the *dynamic* interpretant, and is thus in a very important sense *parallel* to the division into icons, indices, and symbols, which is drawn according to the sign's relation to the *dynamic* object. The parallelism between the two "dynamic" trichotomies (which was of course impossible before the third reform of speculative grammar) now suggests to Peirce a general method for determining the compossibilities of the semiotic parameters.

This brings us back to the December 1908 letter to Lady Welby. For as we have just seen in that letter (and in fact also in the 1904 letter, cf. *supra*, §8.1), Peirce attempts to determine the classes of possible signs by considering the relations of semiotic compossibility of the members of *two* trichotomies only (that according to the sign itself and that according to the immediate object). These two trichotomies were marked in the "excellent notation" of October 1905 as "A" (sign in itself) and "Ba" (immediate object). This is, Peirce now sees, the beginning of a general method. That is, the method employed to determine the possibilities of interaction of the trichotomies "A" and "Ba" could also be applied to the two "dynamic" trichotomies "Bbβ" and "Cbβ," and then to other "pairs" of trichotomies which stand to one another in the same relation in which "A" stands to "Ba" or in which "Bbβ" stands to "Cbβ"; successively, the method could be applied to "triplets" of trichotomies that stand to one another in the same relation as, for example, "A," "Ba," and "Ca" stand to one another; and so on. In other words, the method would consist, first, in determining the possibilities of interaction between *couples* of trichotomies which are marked by the same letters (pairs of "a" trichotomies, then pairs of "b" trichotomies, then pairs of "α" trichotomies, and so on); and second, in determining the possibilities of interaction between *triplets* of trichotomies which are

marked by the same letters (triplets of “a” trichotomies, then triplets of “b” trichotomies, and so on). Rather than determining all the relations of compossibility among all the trichotomies *at once* (as was done in the *Syllabus*), the new method would allow to proceed *step-by-step* by considering one pair, and successively one triplet, at a time.

This presupposes that the trichotomies are *hierarchically* rather than *linearly* ordered. In other words, the ten trichotomies are arranged in a *tree-structure*, not as a *linear succession*. One way of expressing the tree-like hierarchy associated to the trichotomies would be to state the trichotomies marked by Greek letters depend on those marked by lowercase letters, which in turn depend on those marked by uppercase letters. And this is the reason why the October 13, 1905, “excellent notation” is very important for the general purpose of determining the classes of possible signs. In fact, without such a notation, the “tree of the trichotomies” is invisible, and thus the step-by-step method is inapplicable.

Peirce never managed to apply to his tenfold taxonomy of signs the new step-by-step method, based on a tree-like classification of the semiotic trichotomies, which he conceived while looking retrospectively to his earlier semiotic experiments on November 1, 1909. The next page of the *Logic Notebook*, written on that very same day, registers a new attempt to define a “sign,” as if to start all over again.

Notes

- 1 See Hamilton (1860, Lect. XIII, 172–173), and Mill (1843 I, iv, §4).
- 2 Cf. R 517 CSP 11–12 ISP 87, 90 (1904); R 515 CSP 20–21 (c. 1904). For a game-theoretical interpretation of Peirce’s logic of quantifiers, see Hilpinen (1982) and Pietarinen (2006, ch. 3).
- 3 For other pairs of terms employed by Peirce for “utterer” and “interpreter,” see Pietarinen (2006, 77–78).
- 4 Different versions of a paper titled “The Basis of Pragmatism” survive. The paper was intended as the third article in the *Monist* series on pragmatism, after “What Pragmatism is” (Peirce 1905a, in the April issue) and “Issues of Pragmatism” (Peirce 1905b, in the October issue). The various versions of the “Basis” were composed between August 1905 and April 1906. Cf. EP 2:360. Eventually Peirce published the “Prolegomena” (Peirce 1906) instead of the “Basis” as the third article in the series.
- 5 Cf. also Russell (1903, §38).
- 6 Cf. Short: “Peirce’s variant [of anti-psychologism] treats judgment as being on a par with assertion” (2007, 247).
- 7 See at least Brock (1981a), Hilpinen (1982), Ferriani (1987), Chauviré (1995), and Thibaud (1997).
- 8 This was correctly pointed out by Short (1982, 294) and Pietarinen (2006, 377).
- 9 It is interesting to see Peirce’s illocutionary trichotomy against John Searle’s classification of speech acts (Searle 1979). Searle has the Assertives, which commit the speaker to the truth of the propositional content; the Directives, which are attempts by the speaker to get the hearer to do something; the Commissives, which commit the speaker to do something; the Expressives, which express a psychological state concerning certain propositional contents; and the

Declarations, which bring about the correspondence between a propositional content and reality. Searle employs several criteria in his taxonomy, the most important of which is the “direction of fit” (1979, 3): Assertives have direction of fit *word to world*, Directives and Commissives *world to word*, Expressives have no direction of fit, and Declarations have a double direction of fit (both *word to world* and *world to word*). Now if we assimilate Directives and Commissives on the basis of their sharing the same direction of fit (as Searle at some point suggests to do; cf. Searle 1979, 15; see also Sbisà 1984, 107), we are left with four categories, three of which correspond to Peirce’s. The direction of fit (in Peirce’s terms, the sign’s relation to the immediate interpretant) determines the kind of illocutionary force: when there is no direction of fit, the immediate interpretant is merely presented or expressed, and the sign is interjective/interrogative (Searle’s Expressives); when the direction of fit is *world to world* the immediate interpretant is represented as an *action that fits the sign*, and the sign is imperative (Searle’s Directives/Commissives); when the direction of fit is *word to world* the immediate interpretant is represented as a *thought (i.e., a sign) that fits the world (i.e., is true)*, and the sign is indicative (Searle’s Assertives). Declarations remain excluded from the count: Peirce seems to have no particular sensibility for typical “performatives” like “marry,” “christen,” “declare war,” “resign,” “appoint,” etc. (cf. Searle 1979, 16). This is a remarkable deficiency of his account. However, if we except Declarations, Peirce’s taxonomy corresponds to Searle’s. For a parallel between Peirce’s and Searle’s views on assertion (in which, however, no account is provided of their typologies of illocutionary forces), see Brock (1981b).

- 10 See Pietarinen (2015b).
- 11 Cf. the version of this passage in the published article: Peirce (1906, 506–507).
- 12 The two trichotomies <particular, singular, universal> and <hypothetic, categorical, relative> correspond to two of Kant’s four divisions of judgments in the *Critique of Pure Reason*. Short (2007, 258) acknowledges the Kantian affiliation of the latter division.
- 13 In point of fact, in a 1905 draft letter to Lady Welby, Peirce proposes to view abduction as a second figure syllogism with the conclusion in the interrogative mood (10 July 1905, RL 463). A similar proposal was made in the *Syllabus*, where Peirce had claimed that the conclusion of an abduction “is accepted in the Interrogative Mood,—a mood existing in Universal Grammar, whether it exists in any language or not” (R 478 CSP 101). For a development of this idea, see Pietarinen and Ma (2016).
- 14 “diagrams are indispensable in all Mathematics, from Vulgar Arithmetic up, and in Logic are almost so. For Reasoning, nay, Logic generally, hinges entirely on Forms. [. . .] no pure Icons represent anything but Forms; no pure Forms are represented by anything but Icons” (Peirce 1906, 513)
- 15 This is a question of logical critics that I cannot dwell upon further. The role of instinct in abduction is discussed at length in the “Neglected Argument” of 1908 (R 841) and its drafts (R 842, 843). On Peirce’s idea of a “rational instinct” or *lume naturale*, esp. in the “Neglected Argument,” see Maddalena (2009, 79–96).
- 16 See EP 2:398.
- 17 Cf. SS 193–194.
- 18 Peirce’s notion of “collateral observation” may be considered a variant of Russell’s “principle of acquaintance.” For Russell, anything, be it an object or a relation, can be a component of a proposition, provided we have acquaintance with it. Cf. Russell (1905, 492). Like for Russell, for Peirce not only subjects, but also predicates must be previously or collaterally known if a proposition is to function as such.
- 19 To take an example from Peirce’s letter to James of 26 February 1909, CP 8.177.

- 20 Peirce's distinction between the immediate and the dynamic object of a sign has often been taken to account for something similar to the Fregean distinction between *Sinn* and *Bedeutung*, and accordingly it has been assumed that the immediate object should have something to do with the "meaning" or "sense" of a sign. For a criticism of this interpretation see Bellucci (2015c). Here I can observe that, as Peirce explains to Lady Welby, "*signification* is only *one* of the *two* chief functions of signs; as the elegant and correct John of Salisbury notices, in referring to 'quod fere in omnium ore celebre est, aliud scilicet esse quod appellativa significant, et aliud esse quod nominant. Nominantur singularia, sed universalia significantur'" (RL 463 ISP 148). A sign both denotes and connotes, *nominat* and *significat*. It denotes its object and signifies its interpretant. It says something, and also indicates that of which it says what it says. If it is thought that the dynamic object corresponds to what the sign *nominat*, while the immediate object to what the sign *significat*—as, for example, Mats Bergman does when he says that the "aspect of saying something about something in some manner is conceptualized as the immediate object in distinction from the dynamical object that encompasses identification and demarcation" (2008, 86)—the result would be precisely that confusion between the object and the interpretant of a sign against which Peirce warned us. As far as I know, the only Peirce scholar who has fully recognized that the immediate object of a sign has nothing to do with its "meaning" is Frederik Stjernfelt: "neither the Immediate Object nor the Dynamic Object is concerned with descriptive characters—this is left to the meaning categories. Both deal with the *identity* of reference" (2014, 98).
- 21 See Liszka (1990), Lalor (1997), and Short (1996; 2007, ch. 7).
- 22 Cf. Short (1996, 497) and (2007, 181–182).
- 23 Short has claimed that by means of his 1907 doctrine of the final logical interpretant, Peirce "broke out of the hermetic circle of words interpreting words and thoughts interpreting thoughts" (2007, 59). According to Short, before 1907 Peirce had maintained that the interpretant of a sign is always a sign. This, according to Short, immediately engenders the paradox of unlimited semiosis, but would ultimately fail to explain what the meaning of a sign actually is: by saying that the meaning of a sign is the sign it is translated into, Peirce makes significance dependent on further significance, *ad infinitum*. In 1907, says Short, Peirce makes a "final decisive change in his semeiotic" (2007, 56): the claim that the "habit alone, which though it may be a sign in some other way, is not a sign in that way in which that sign of which it is the logical interpretant is the sign" (R 318 CSP 76 ISP 335) is the required necessary correction to his earlier, flawed semiotic theory. Now, if one admits that arguments are signs, and that in 1867 Peirce had already elaborated (and published) his doctrine of the un-eliminability of logical leading principles (*supra*, §1.2), then there is good reason to maintain that already in 1867—that is, at the dawn of Peirce's semiotic investigations—what would later be called the final, ultimate, or representative interpretant is considered in some sense not of the nature of a sign but of the nature of a habit. In fact, it could be argued that in those early papers Peirce gave a demonstration that while logical interpretants can be considered as signs (the argument obtained by considering an argument's material principle as a further premise is a further, different argument that "interprets" or "explicates" the first), the *final* logical interpretant cannot on pain of redundancy (the argument obtained by considering an argument's logical principle as a further premise is *not* a further, different argument in the same sense). In other words, if one admits that arguments are signs for Peirce, then there is no reason to believe that Short's "third flaw" in Peirce's theory of signs was still awaiting correction in 1907.

- 24 Several drafts of the letter actually sent survive in the Harvard papers (RL 463 ISP 136–160). As Short (2007, 256) notices, the drafts seem to have been written after the letter was sent, a quite odd practice indeed.
- 25 Cf. R 515 CSP 16–17 (c. 1904); R 516 CSP 33 (c. 1904); SS 198 (1906); R 611 CSP 14–15 (Oct. 28, 1908); Peirce to Jourdain, 5 December 1908, NEM 3:885–886. For a discussion of continuous predicates, see Murphey (1961, 318–319), Chauviré (1995, 217–227), Parker (1998, 67–71), Pape (1989, 277–279), and Bellucci (2013b).
- 26 In the sense of Dummett (1981, ch. 15).
- 27 Peirce scholars have worked out several periodizations of the development of Peirce’s ideas about continuity. Potter and Shields (1977) have recognized four main periods: pre-Cantorian until 1884, Cantorian from 1884 to 1894, Kantistic from 1895 to 1908, and post-Cantorian from 1908 until 1911. Havenel (2008) has updated Potter’s and Shields’s work by dividing the Kantistic period into an Infinitesimal period (until 1897) and a Supermultitudinous period (until the middle of 1908), and by stressing the importance of topology in the last period (1908–1913). Other useful periodizations of Peirce’s ideas on continuity, which roughly coincide with Havenel’s, may be found in Moore (2007) and Maddalena (2009, 193–223). Other important discussions of Peirce’s notion of continuity are in Murphey (1961, 238–288), Parker (1998, 60–101), and Paolucci (2005).
- 28 See CP 6.185 (1898); CP 6.168 (1903); CP 7.535 (1908); CP 4.642 (1908).
- 29 It is no surprise, then, that the system of Existential Graphs, which are first and foremost an instrument of logical analysis, is based on two continuous graphs, namely the sheet of assertion (the fundamental sign of the Alpha part) and the line of identity (the fundamental sign of the Beta part). Thus Peirce observes: “Among Existential Graphs there are two that are remarkable for being truly *continuous* both in their Matter and in their corresponding Signification. There would be nothing remarkable in their being continuous in either, or in both respects; but that the continuity of the Matter should correspond to that of the Signification is sufficiently remarkable to limit these Graphs to two; the Graph of Identity represented by the Line of Identity, and the Graph of coëxistence, represented by the Blank” (R 293 CSP 36, 1906); cf. R S 30 CSP 5–6 (c. 1906); R 499 ISP 34 (c. 1906); R 670 CSP 23 (1911); see also Bellucci (2013b, 190–192).
- 30 The first to perceive the similarity between logical leading principles and continuous predicates was Ransdell (1966, 57–61).
- 31 The work on the classification of signs had in fact been resumed in the summer of 1908 (after having been suspended at the end of 1906). Evidence of this comes from the correspondence. First, from a letter to F. C. Russell dated July 10, 1908 (RL 387), in which a tenfold taxonomy of signs is planned, but not executed (cf. also the coeval R 806, dated 12 July 1908, where only the members of the first four trichotomies are specified). Secondly, from a letter to the American mathematician Cassius J. Keyser (1862–1947), dated September 19, 1908 (RL 233), in which Peirce includes a very compact sketch of the tenfold classification, although the members of the trichotomies are again left unspecified. Finally, from a letter to Philip Jourdain dated December 5, 1908 (RL 230, R 278, published in NEM 3:879–888), where again a tenfold classification of signs is mentioned but only the trichotomy into icons, indices, and symbols is specified (NEM 3:886–887).
- 32 A similar presentation of the categories is in the “Neglected Argument” of 1908 (R 841).
- 33 According to Greek mythology, Cerberus is a monstrous dog with three heads that guards the gates to Hades. The dead were buried with honey cakes in the

- coffin to placate Cerberus's appetite on entering Hades. Dante places Cerberus in the Third Circle, guarding over the gluttons. Instead of cakes, Vergil feeds Cerberus with earth (*Inferno*, VI, 13–31). Peirce also uses the metaphor of the “sop to Cerberus” at CP 6.291 = W 8:186 (1892), and CP 1.75 (1898). Cf. Fadda (2014, 33–34).
- 34 As correctly pointed out by Short (2007, 52–53). Cf. Peirce to Jourdain, 5 December 1908 (NEM 3:886); cf. also Fisch (1986, 342–344), Deely (1994), and Fadda (2014).
- 35 In one of the drafts of the letter (RL 463 ISP 151), “qualisign” is also used for “descriptive sign.” Though confusing, this move is not harmful. For since the earlier (i.e., 1903–1906) “qualisign” has been re-labeled “tone” and then “poti-sign,” “qualisign” is now available to take the place of “descriptive sign.”
- 36 As rhemes always are in Existential Graphs when they are scribed on the sheet of assertion; cf. Zeman (1967) and Roberts (1973, 115n3).
- 37 As I am not concerned with finishing what Peirce left unfinished, I do not attempt to determine the sixty-six classes of signs adumbrated by Peirce in the December 1908 letter to Welby. For further details on this, see Sanders (1970), Müller (1994), Olsen (2000), and Short (2007, 256–260). In the remaining of this Chapter, I will only be concerned with the ordering that Peirce himself gave to the ten trichotomies in his last, unpublished taxonomic schemes, and I will completely abstract from the question whether such ordering could afford the basis for the determination of the sixty-six classes of signs.
- 38 The *Prescott Book* (R 277) is a younger companion to the *Logic Notebook*.