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978-0-521-84320-1 - Peirce's Theory of Signs
T. L. Short
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Peirce's Theory of Signs

In this book, T. L. Short corrects widespread misconceptions of Peirce's theory of signs and demonstrates its relevance to contemporary analytic philosophy of language, mind, and science. Peirce's theory of mind, naturalistic and nonreductive, bears on debates of Fodor and Millikan, among others. His theory of inquiry avoids foundationalism and subjectivism, while his account of reference anticipated views of Kripke and Putnam. Peirce's realism falls between "internal" and "metaphysical" realism and is more satisfactory than either. His pragmatism is not verificationism; rather, it identifies meaning with potential growth of knowledge. Short distinguishes Peirce's mature theory of signs from his better-known but paradoxical early theory. He develops the mature theory systematically on the basis of Peirce's phenomenological categories and concept of final causation. The latter is distinguished from recent and similar views, such as Brandon's, and is shown to be grounded in forms of explanation adopted in modern science.

T. L. Short is Chairman of the Board of Advisors to the Peirce Edition Project (Indiana University–Purdue University, Indianapolis). He has published broadly in the philosophy of science, conceptual change, teleology, and aspects of the philosophy of C. S. Peirce in journals such as *The Monist*, *American Philosophical Quarterly*, *Grazer Philosophische Studien*, *the Transactions of the Charles S. Peirce Society*, *Biology and Philosophy*, and *Synthese*.

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for
Mike, Polly, Ben, Becky, and Dave

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CAMBRIDGE UNIVERSITY PRESS
 Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press
 32 Avenue of the Americas, New York, NY 10013-2473, USA
www.cambridge.org
 Information on this title: www.cambridge.org/9780521843201

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First published 2007

Printed in the United States of America

A catalog record for this publication is available from the British Library.

Library of Congress Cataloging in Publication Data

Short, T. L. (Thomas Lloyd), 1940–
 Peirce's theory of signs / T. L. Short.
 p. cm.

Includes bibliographical references and index.

ISBN 978-0-521-84320-1 (hardback)

1. Peirce, Charles S. (Charles Sanders), 1839–1914. 2. Semiotics.

I. Title. II. Title: Charles Sanders Peirce's theory of signs.

B945.P44S447 2007
 121'.68092-dc22 2006020510

ISBN 978-0-521-84320-1 hardback

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Preface

Peirce's theory of signs, or semeiotic, misunderstood by so many, has gotten in amongst the wrong crowd. It has been taken up by an interdisciplinary army of 'semioticians'¹ whose views and aims are antithetical to Peirce's own, and meanwhile it has been shunned by those philosophers who are working in Peirce's own spirit on the very problems to which his semeiotic was addressed. Those problems are two: to construct a naturalistic but nonreductive account of the human mind, and to explain and defend the claim that the sciences are objective in their mode of inquiry and in fact yield knowledge of an independently existing reality. In the following pages, I attempt to show how contemporary discussions in the philosophies of mind and science might benefit from a deeper study of Peirce's ideas. The purpose of this book is to say what Peirce's theory of signs is and to suggest what its philosophical significance may be.

As to the philosophy of mind: Peirce's mature theory of signs (as opposed to his early theory) is germane to the issues framed by Putnam, Searle, Dretske, Dennett, Fodor, and others. Obviously, a detailed taxonomy of signs, such as Peirce provided, might be of some help to anyone attempting to account for thought as a form of representation. Much more importantly, however, the mature semeiotic was developed in an attempt to explain, on a naturalistic basis, what we (not Peirce) call the 'intentionality' of mind. I argue that that attempt succeeds

¹ I use 'semeiotic', in Peirce's occasional spelling, for his theory or theories of signs, and the more usual 'semiotic' for that movement which originated in Europe (chapter 1, section 5) independently of Peirce and that later appropriated him, with confusion all around.

where similar, more recent attempts falter, because it was in one respect bolder.

Peirce was bold in many ways, but the particular boldness that matters here is in the ontological depth of his theory of final causation. But for that depth, his theory would be little different from the views of teleological explanation recently propounded by biologically minded philosophers such as William Wimsatt, Larry Wright, Robert Brandon, and Ruth Garrett Millikan, none of whom denies that the real world is mechanistic *au fond*. Please do not misunderstand: despite his occasional adoption of the language of the romantic idealists (Schelling particularly), Peirce's teleology is not a rejection of the physicalism that prevails in philosophy today. Instead, it challenges contemporary philosophy's unexamined conception of the physical. Peirce argued that physical explanations are not always mechanistic and that what is explained teleologically cannot be explained mechanistically; we shall conclude that what is explained teleologically or otherwise nonmechanistically are irreducibly nonmechanical aspects of physical processes.

Necessarily, we will also touch on issues in the philosophy of language; for they are implicated in contemporary debates in every area of philosophy. Besides, a theory of signs as broad as Peirce's must entail a philosophy of language. In particular, we cannot avoid reconstructing Peirce's defense of a version of realism that, contrary to the usual view taken of his philosophy, falls between 'internal realism' and 'metaphysical realism', as these are defined by Hilary Putnam. What I shall name 'Peirce's realism' rejects that dichotomy. Peirce's realism is essential to his theory of knowledge and philosophy of science, but his argument for it belongs to the philosophy of language; hence, it is to be found within our systematic statement of the mature semeiotic.

Some of Peirce's anticipations of later philosophers – Reichenbach's frequency concept of probability, Popper's idea of theories as conjectures and his propensity concept of probability – are well known, but others, equally important, are not. The 'holistic' account of meaning presupposed in the worries about scientific objectivity raised by Feyerabend and Kuhn was anticipated by Peirce, as was the view sometimes deployed in opposition to holism, namely, the causal account, associated with Kripke and Putnam, among others, of some kinds of reference. Peirce's pragmatism combined those seemingly disparate views, with a third element added, of a potentiality for future growth as essential to present meaning. That is clearer in his semeiotic writings than in those canonically 'pragmatic', and it removes the standard objections that have been made to

his pragmatism. It also shows how scientific inquiry is objective despite observation's being 'theory-laden'.

A thorough discussion of any contemporary issue, let alone so many, is impossible within the limits of this one book, which must cover so much else besides. I do no more than indicate the ways in which Peirce's theory bears on some questions of current interest. That occurs here and there but primarily in the last three chapters. Although I have made those remarks as exact, complete, and persuasive as I could, I do not pretend that they are anything more than sketchy suggestions.

So, why bother? Apart from their possibly being of some use, another virtue I would claim for these suggestions is that they hang together. In one respect, the tenor of Peirce's work runs counter to contemporary philosophical fashion, which is to atomize issues. Every new puzzle disclosed becomes a site for a new flood of specialist debate, pursued largely out of relation, except for the borrowing of techniques, to work on every other puzzle.² (Specialization is essential to modern science, but is it appropriate to philosophy?) Not that Peirce had a grand system. He was always dissatisfied. His emphasis was on inquiry, on endless growth of knowledge, in philosophy no less than in the special sciences. But system building is not the only alternative to fragmentation. Here, too, the study of Peirce's thought may prove salutary.

How to Read this Book

This is the plan: the first two chapters are introductory, the next three lay the foundations for the mature semeiotic, which is developed systematically in the succeeding four chapters, and the last three chapters seek to apply the foregoing to contemporary issues. It works out almost that way, but there is a good deal of leakage between compartments.

Some chapters or sections of chapters contain fairly dense textual analyses that readers willing to take my word for what Peirce said may want to skip. These are: all of chapter 2, sections 7–9 of chapter 6, section 1 of chapter 7, and sections 1, 3, and 4 of chapter 9.

Those doubting the value of time spent grappling with Peirce may want to look first at chapters 10–12, and only then, if curiosity has been aroused, read chapters 3–7. But everything depends on Peirce's phaneroscopy

² There are of course important exceptions, but as to the general tenor, at least in the philosophy of language, see Scott Soames' Epilogue to vol. 2 of his masterly summation of analytic philosophy in the twentieth century (Soames 2003).

(chapter 3) and the development and defense of his idea of final causation (chapters 4 and 5).

I have not assumed that the reader has any specialist knowledge, whether of Peirce's philosophy or of formal logic or of contemporary philosophy. Thus the book should be accessible to anyone philosophically interested. Yet I cannot claim that it is easy reading. For many difficult issues are discussed in it, all of them concisely.

One last remark in this vein: it may be objected that a great deal of my own thought obtrudes in my account of Peirce's views. I blush and am embarrassed, but I cannot help it. For one cannot make sense of Peirce's semeiotic without filling in the gaps, selecting the variants that make the most sense, and showing how the parts fit together, even if that means making a few corrections. After all, he was never satisfied with his own statements of the doctrine; he never finished any statement of it. And besides, Peirce wrote philosophy 'like a scientist',³ setting out ideas not intended as final but to be applied and developed, perhaps by others. The argument for those ideas is not wholly on the page but consists in what can be done with them – just as pragmatism prescribes. Everything I say here that is in some sense 'mine', I first thought in an effort to comprehend Peirce's thought.

Other Views of Peirce's Semeiotic

In the interest of setting out my interpretation of Peirce's theory succinctly, I have avoided to a large extent examining contrary views; areas of controversy are indicated by citations of the literature or, often, by citation of my own articles in which that literature is cited and addressed. It may be well, then, to enumerate here the major alternatives to the view I shall present. Despite the vast amount that has been written on or that exploits Peirce's sign theory, its direct expositions are few and brief.

The major alternatives, I would say, are Karl-Otto Apel's 'semiotical transformation of transcendental logic' (1980, 1981, 1995) and David Savan's 'ordinal' interpretation (Savan 1987; cf. Short 1986a and Savan's response, Savan 1986). More or less in the Savan mode are James Jakób Liszka's 1996 book, a comprehensive, systematic exposition, and Gérard

³ The words are those of the geologist Victor Baker in conversation, explaining why he found reading Peirce more rewarding than reading other philosophers. It got me thinking. I think it explains why philosophers find Peirce's writings frustrating, and I think it indicates how Peirce ought to be read.

Deledalle's 1987 and 2000 books, written with swift *élan* by the leading, recently deceased, French expositor of American philosophy. In Short 1996b, I have disputed earlier expressions of Liszka's view; my objections apply as well to his book, which appeared in the same year. Another alternative, emphasizing semeiotic's application to the analysis of communication, and perhaps overemphasizing the role of that analysis in Peirce's semeiotic, is due to the anthropologist Richard Parmentier (1985, 1994), and is illuminatingly discussed by Mats Bergman (2000); see also Jürgen Habermas's 1995 article and Klaus Oehler's 1995 response thereto. Douglas Greenlee's 1973 monograph continues to be cited despite its having been shown, repeatedly and irrefutably, to be entirely wrong (Oehler 1974, Brock 1977, Ransdell 1977, and some long footnotes in Short 1981a, 1982). Charles Morris (1938, 1946, 1964) is often taken as a guide to Peirce, but wrongly. Morris never claimed to be presenting Peirce's views, and, in fact, his theory, unlike Peirce's, was behavioristic, especially in its earlier formulations.

There have also been many publications less thoroughly opposed to the view I shall develop here. I mention only those that address Peirce's theory as a whole. First in importance are articles of 1978 and 1983 by Max Fisch, the late dean of Peirce scholars (Fisch 1986, chs. 17–18). Although not a systematic exposition of Peirce's semeiotic, John J. Fitzgerald's 1966 book should also be mentioned for its early success in placing that theory in its philosophical context. Joseph Ransdell, in articles but alas no book, forcefully states a view that in some ways is close to mine but that differs from it in interesting and important ways (1976, 1977, 1979, 1981). A 1993 book by the Danish literary theorist Jørgen Dines Johansen contains an extensive and sensitive exposition of Peirce's theory citing many manuscript sources. These authors have not distinguished Peirce's mature from his early theory as decisively as I do – something they may feel is to their credit.

Continental writers, approaching Peirce from a background of Saussurean semiology, have systematically misinterpreted his semeiotic. For the two doctrines are fundamentally incompatible (chapter 1, section 5). The unholy union of Saussure's supposed conventionalism with the breadth of Peirce's mature semeiotic gave bastard birth to an extreme relativism and irrealism – a modern version of sophistry that Saussure and Peirce would both have rejected. I therefore treat those writings not as an alternative reading of Peirce's semeiotic but as an alternative to it. For the most part, it is an alternative I ignore, but see chapter 2, section 6,

for brief comment on Jacques Derrida's and Umberto Eco's reading of Peirce.

One last strain of interpretation of Peirce's semeiotic must be mentioned. With the encouragement of the late Thomas Sebeok, the linguist and American impresario of semiotics, a number of authors, some of them from the natural sciences, have extended the naturalistic view I favor beyond what I take to be intelligible limits. To be sure, the concepts of information theory may be extended to genetics, but that does not mean that Peirce's semeiotic may be so extended; unlike information theory, it accounts for intentionality, but it does not bring intentionality down to the level of DNA and RNA. Nevertheless, Claus Emmeche (1991, 1998), Jesper Hoffmeyer (1996), Emmeche and Hoffmeyer (1991), and Lucia Santaella Braga (1999a, b) are of interest. Helmut Pape's long and ambitious study (1989) properly places Peirce's semeiotic in phenomenological and teleological context but overextends the theory, less biologically than cosmologically.

A Note on Terminology

I avoid technical language where possible and explain such terms as I do use. My slight use of formal logic and occasional references to its apparatus are not sufficient to block the understanding of anyone not familiar with that subject. Peirce's famously rebarbative neologisms are explained where they cannot be avoided. Concepts evolved in the long history of philosophy are another matter. They might be taken to be well established and understood, except for the awkward fact that in every philosophy they are understood differently. Peirce's glosses on such terms as 'real' and 'individual' are of the greatest interest. Perhaps least in need of definition are the nouns 'universal' and 'particular', as their use in philosophy has been fairly uniform. And yet they are so fundamental to every phase of this book's argument that I define them here and then review some of the finer points, so as to forestall misunderstandings.

'Universal' is the standard translation of Aristotle's *katholon* and is universally understood as Aristotle understood the latter (not in all texts equally but in *De Int.* 7 primarily), as that which is said of many. We may gloss this as: that which, as a matter of grammar, not as a matter of real possibility, may be true of many. Being a unicorn is therefore a universal, as it would not be ungrammatical to speak of many unicorns. Opposed to the universal is the particular, which cannot grammatically be said of

many. No two people are Socrates, even if two are named 'Socrates'. (Only figuratively may one say, 'Would there were another Socrates'.) Socrates is a particular, while being old, being red, being a unicorn, being named 'Socrates', or being a particular are universals.

Notice that what is being defined here are these terms as nouns, hence, as naming kinds of thing. This usage is philosophical. The same terms as adjectives are parts of ordinary speech and are used with related meanings, though the adjective 'particular' is used more broadly, while the adjective 'universal' is used more narrowly than are the corresponding nouns. Thus, when two philosophers are debating about universals, it would not be incorrect for one to say to the other, 'Which particular universal have you in mind?' And while *a* universal is that which *may be* true of *many*, something *is* universal only if it *is* true of *all* (all, that is, of some understood class), as in, 'It is a truth universally acknowledged.' The adjective 'general' corresponds more closely, though imperfectly, to the noun 'universal' than does the adjective 'universal'.

It should not be assumed that every philosopher who uses the word 'universal' as a noun is committed to the proposition that universals exist or are real. For one can ask, 'Are universals real?' and 'Do they exist otherwise than in name?' Realists (in one sense of that overworked word) are those who assert that universals are real, that is, that there are universals independently of their being named or thought of, while nominalists are those who assert that universals exist in name (*nomen*) only.

What of something that, by conception, can be true of one particular at most and yet might have been true of some other particular than the one it is true of? There can be only one twenty-sixth president of the United States and yet it might have been someone other than Theodore Roosevelt, for example, had McKinley not been shot. I think we shall have to say that that is a universal, too, since there is more than one of which it could have been true, though it could not have been true of more than one. But notice that a phrase such as 'the twenty-sixth president,' used as the grammatical subject of a sentence, will normally denote a particular – the individual who was the twenty-sixth president in fact – not a universal.

The noun 'universal' tends to be used to refer only to that which may be true of subjects taken one at a time, for example, being human or being red. But relations may be true of things taken two at a time or three at a time, and so on. The sentence 'John is taller than' is ungrammatical; it wants to be completed by Bill. Being taller than is true of some pairs of particulars. We will count relations as universals.

Peirce often used 'general' as a noun, in place of 'universal'. That is awkward, given the military meaning that that noun has in ordinary English. Thus, he spoke of properties, relations, and laws as 'generals'. The motive is not given. Perhaps it was for the sake of agreement with the adjective (see above). Perhaps it was because a law, whether customary, enacted, or natural, is not a universal. It is general in the sense that it applies to many instances, actual or possible; but the law cannot grammatically be said of those instances. What can be said of them is that they conform to the law. The issue between nominalism and realism may nevertheless be extended to laws, hence, to all 'generals', and Peirce did so extend it.

Bibliographical Note

Peirce's writings are cited in the text parenthetically, in the ways that have become standard among Peirce scholars, as follows: citations of the form $(n.m)$ refer to paragraph m of volume n of the *Collected Papers*; $(Wn:m)$ to page m of volume n of the new, chronological edition of Peirce's *Writings* (regrettably, not yet complete); $(EPn:m)$ to page m of volume n of the *Essential Peirce*; $(NEMn:m)$ to page m of volume n of the *New Elements of Mathematics*; $(LW:n)$ to page n of Peirce's letters to Lady Welby in the volume *Semiotic and Significs*; $(RLT:n)$ to page n of Peirce's 1898 lectures in Cambridge, Massachusetts, in *Reasoning and the Logic of Things*; and, finally, citations of the form (MSn) or (Ln) are to manuscript n or letter n , as numbered in Robin 1967. See the Bibliography.

Acknowledgments

This book owes much to the instruction, encouragement, support, and friendship that I have received over the years from a number of philosophers and students of Peirce, many now deceased: Josiah Lee Auspitz, Joseph Brent, Jacquelin Brunning, Arthur Burks, Vincent Colapietro, Gérard Delledale, Max Fisch, George Geiger, George Gentry, Susan Haack, Peter Hare, Charles Hartshorne, Risto Hilpinen, Nathan Houser, Christian Kloesel, I. C. Lieb, Cheryl Misak, Robert Palter, Vincent Potter, Joseph Ransdell, Lucia Santaella, David Savan, Thomas Sebeok, and Michael Shapiro, among others. I must single out Richard Robin and his wife, Joanne, as my most persistent and generous cheering section, the warmth of whose support is deeply appreciated. André De Tienne took time to answer detailed queries about Peirce's intellectual history and the dating of his manuscripts. Andrew Reynolds and Nicholas Pappas each made very useful criticisms of an early version of what is now chapters 4 and 5. Mark Migotti read several chapters with scrupulous care, compelling many improvements of substance and style; my debt to Migotti is great. But my largest debt is to Nathan Houser, who read more chapters than anyone and generally kept cracking the whip.