Editorial Preface

Ahti-Veikko Pietarinen

This special issue of *Synthese* on Peirce's Logic and Philosophy of Language collects papers by Rocco Gangle & Gianluca Caterina, Chuangshen He, Risto Hilpinen, Matthew Moore, Charles S. Peirce, Ahti-Veikko Pietarinen and Frederik Stjernfelt.

Charles Sanders Peirce (1839–1914) was a scientist, philosopher, mathematician and semiotician, as well as one of the undisputed giants in the founding of modern logic. He advanced virtually endless areas in exact sciences. He worked throughout his long career as a scientist, logician, philosopher, mathematician, and meaning analyst. As an advocate of developing and applying new methods and theories to improve logical analysis, his innovations included algebraic methods, quantification theory, semantics and pragmatics of communication, ethics and philosophy of notation, as well as comprehensive systems of diagrammatic logics which he termed existential graphs. Peirce held an exceptionally wide conception of logic, conceived as semeiotic, which he took to be that part of normative science concerned with the meaning and goodness of inference, thought, intellectual concepts, signs, and scientific inquiry.

The eighth papers gathered in this special issue portray, evaluate and further develop Peirce's logical, philosophical, methodological, semantic and exact analytical ideas. Those ideas, of which this modest collection of papers can only show glimpses, may compel us to put the developments and achievements of modern logic and analytic philosophy into a new historical and systematic perspective.[1]

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[1] The recent literature on this ongoing re-evaluation includes works such as Pietarinen (2015), Pietarinen and Bellucci (2015), Bellucci et al. (2014).

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As a useful reminder of historical continuities linking this journal and Peirce, *Synthese*'s early volumes were devoted to the study of *significs* ("significhe kring"). The name was retained in the journal's description until the 1960s. This Dutch-English designation that emphasized the study of the effects of assertions shows up in Peirce's still unpublished late manuscripts on the methodology of logic, such as those bearing the title "Significs and Logic".[2]

Any introduction to the topic of Peirce's logic and philosophy of language is best left to the author of those ideas himself. For that reason, this special issue opens with two of his previously unpublished papers, "Recent Developments of Existential Graphs and their Consequences for Logic" (1906) and "Assurance through Reasoning" (1911). Both were written for the National Academy of Sciences meetings and are among the best of his logical writings in bringing out the full scope of his philosophical and methodological approach to logical investigations.

The selection of papers that follows all attest Peirce's substantial investment on the study of such methodological and philosophical questions in the development of new logics. The next three papers (Gangle & Caterina; Pietarinen; He) study the fundamental aspects of Peirce's *chef d'œuvre*, his logic of existential graphs, and its application to linguistic and semantic theorizing. The next two papers (Hilpinen; Stjernfelt) address Peirce's theory of signs and meaning, especially the nature of names and propositions, of utmost relevance also to contemporary philosophy of language. The paper by Moore is concerned with the notion of continuity and early topology in Peirce's later works. Lastly, a double review is included of two books that have appeared on Peirce's logic and his philosophy of signs and language.

Earlier versions of the papers published in this special issue were presented in the following events organized by the editor: *Synthese Library Book Session* (Pietarinen & Stjernfelt) held in the First International Conference on Applying Peirce, University of Helsinki in June 2007, in the Signs and Meaning meeting in Aarhus in February 2008, and in the Workshop on Diagrammatology, University of Lisbon in March 2009; *Peirce and Early Analytic Philosophy* (Pietarinen; Stjernfelt), symposium held at the University of Helsinki, Finland in May 2009 and organized by the Helsinki Peirce Research Centre and the Nordic Pragmatism Network; *Symposium on Existential Graphs* in the Conference on Model-Based Reasoning in Science, Campinas, December 2009 (Gangle & Caterina); and *Peirce the Mathematician* (Moore; Hilpinen), symposium held at the *International Summer School for Semiotics and Structural Studies*, Imatra, Finland, in June 2010.

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[2] See Peirce's manuscripts 641–2 (1909); cf. Beth (1948).

their support and patience concerning the preparation of this special issue, completed at the Centenary of Peirce's death.

Helsinki, 31 December 2014
Ahti-Veikko Pietarinen, Guest Editor

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