

C. S. S. PEIRCE AND E. G. A. HUSSERL
 ON THE NATURE OF LOGIC

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0. *Introduction.* In a recent article Marvin Farber remarks [1], "Although Husserl removed himself from the arena of active philosophical discussion for the most part, he continued to develop lines of inquiry that received their first major expression in his *Logische Untersuchungen*," [2]. In those *Investigations* Husserl set out to critique both "psychologism" (i.e., logic as based upon psychological realism), which was adhered to by such individuals as, e.g., B. Erdmann, Schuppe, Sigwart, W. Wundt and even by Husserl earlier in his life [3] and "antipsychologism" (i.e., logic as a normative discipline), which counted among its members such men as, e.g., G. Frege, C. S. Peirce, E. Schröder and A. H. Voigt. Since the logical inquiries of Peirce and of Husserl occupy significant positions in their philosophies, this note undertakes a comparison and contrast of their conceptions of logic just after the turn of the present century.

1. *Historical Preliminaries.* Both Charles Peirce (born: September 10, 1839) and Edmund Husserl (born: April 8, 1859) were mathematicians by their early formal trainings. During their early apprenticeships they were exposed to mathematicians of first magnitude—Charles to his father, Benjamin, the foremost American mathematician of that day and Edmund to K. Weierstrass (and then later as his assistant), L. Kronecker and E. E. Kummer, certainly the foremost mathematical analysts of their day. However in their mid-twenties they fell away from mathematics *qua* mathematics only. Peirce emigrated toward logic and the philosophy of science and Husserl toward philosophy as a science, with an initial preference for biologico-scientific philosophy. Peirce, after a long life as a professional logician and philosopher, came to regard logic as a normative science and devoted Chapter 4 of his "Minute Logic" (1902-1903) to discussing it as such [4]. In fact M. G. Murphey writes [5], "... The normative character of inquiry is thus implicit in much of Peirce's writing of the late 1860's and 1870's." Husserl, partly under the influence of Franz Brentano, went on to investigate logic as founded upon psychology in his *Philosophie der Arithmetik*. However he soon came under a bombardment

by A. H. Voigt and G. Frege comparable in strength and effectiveness to B. Russell's controversy, on many-valued logics, with Hugh MacColl. A. D. Osborn writes [6], "... Voigt returned to the attack with the damaging assertion that Husserl could only claim originality for his calculus of content by overlooking the work of men like Gottlob Frege in Germany and Charles S. Peirce in America." Although Husserl's work had been by no means demolished in the controversy the situation prompted him to make a reevaluation of the nature of logic, which culminated, five years later, in his *Logische Untersuchungen*. In that work, which, among other things, critiques both the exact logicians and the psychological logicians, there is no explicit reference to Peirce. However, Peirce, in his 1904 review of J. Dewey's *Studies in Logical Theory* lists Husserl among the German psychological logicians [7].

In passing we note that both Peirce and Husserl reviewed various (different) volumes of E. Schröder's *Vorlesungen über die Algebra der Logik*. Husserl reviewed [8] volume 1 (*exakte Logik*) which had appeared in 1890. Peirce, who has commented [9], "My friend Schröder fell in love with my algebra of dyadic relations.", according to Professor Max H. Fisch, is almost certainly the anonymous reviewer of volume 3, *Algebra und Logik der Relative* in *The Nation* [10], and, Peirce did review it in *The Monist* (1896-1897). Thus, through Schröder, Peirce may have influenced Husserl. From the absence of "Husserl" on an unpublished and tentative list of Peirce's Correspondents made available by Professor Fisch, it appears that Peirce never attempted to communicate with Husserl. The author has been unable to check on the converse situation. However in a private communication to this author, Professor Fisch writes, "Husserl's review of Schröder and his essay "Der Folgerungscalcul und die Inhaltslogik" (both of 1891 and both containing references to Peirce) were in Peirce's library with rubber-stamped inscriptions equivalent to 'with the author's compliments' and passed into the Harvard Library after Peirce's death. I assume they were sent to Peirce by Husserl in 1891, but of course it is just possible that they were sent to him by Schröder or by somebody else who had received them from Husserl—and perhaps not inconceivable that Peirce bought them on the second-hand market at some later time."

2. *Remarks on their Views of the Nature of Logic.* Peirce conceived of logic as the theory that analyzes and synthesizes modes of reasoning and of arguments [11]. As A. W. Burks has shown [12] in his paper "Peirce's Conception of Logic as a Normative Science," Peirce held reasoning to be a species of thinking, *viz.*, deliberate, self-controlled thinking. Since, on pragmatic grounds, Peirce regarded thinking as a form of (mental) conduct, he concluded that reasoning is a sort of deliberate, mental conduct for which an individual could be held responsible. Hence, on the one hand, reasoning has esthetic and ethical foundations. Thus, by Schleiermacher's criteria, reasoning is a normative science. On the other hand, since logic serves as a means to discovering self-correcting and obstetric methods of an ideal kind to be used in searches for extracting truth from out and around errors, the resulting methods provide norms and ideals to guide our reasoning. Hence logic is a normative scientific discipline.

Husserl made it his aim in the first volume of the *Investigations* to get beyond both the German exact logicians (logic is a normative discipline) and the psychological logicians by regarding logic not just as a normative but as a pure science with the task of the determination of the nature of meaning and the development of a method of scientific inquiry. To this extent Peirce's conception of logic can be considered as between the views the German exact logicians and Husserl. But Peirce's notion of logic is no more eclectic composition of their views for as noted earlier Peirce, when writing "Minute Logic," regarded Husserl as a psychological logician. And, after all, it was one of Husserl's achievement to initiate the treatment of logic as a *pure* science.

By way of criticism of the view of the German exact logicians one could point out that not just *any* ideal and mental conduct are suitable for the discovery of truth, unless one uses "truth" in the Sophistic or Eristic senses. On the other hand Husserl's conception seems to be a broad idealistic prescription, derived directly from his association with Brentano, rather than a description of the nature of logic.

In the second volume of *Logische Untersuchungen* Husserl makes a provisional inquiry to determine the pure science that is to be a clarificatory basis for logic. That science is to be his phenomenology. In closing we note that Peirce also bases his logic, in part, upon his own version of phenomenology. Thus he writes [13], "Logic . . . must appeal to ethics for its principles. It also depends upon phenomenology and upon mathematics." But relations and differences between the phenomenologies of Peirce and Husserl are another matter which have been treated by H. Spiegelberg in his article, "Husserl's and Peirce's Phenomenology," appearing in *Philosophy and Phenomenological Research*, volume 17, No. 2 (Dec., 1956) pp. 164-185.

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- [1] Marvin Farber, "The Phenomenological Tendency," *The Journal of Philosophy*, 59, 16 (August 2, 1962):431.
- [2] Edmund Husserl, *Logische Untersuchungen*, 2 Bände (Halle: Max Niemeyer, 1900-1901); Erster Band, Zweite Auflage (Halle: Max Niemeyer, 1913).
- [3] Edmund Husserl, *Philosophie der Arithmetik; psychologische und logische Untersuchungen*, (Halle: C. E. M. Pfeffer, 1891); incidentally in this period of his life Husserl was partially indebted to William James' *Principles of Psychology*.
- [4] e.g., *Collected Papers*, 1.575-1.577.
- [5] M. G. Murphey, *The Development of Peirce's Philosophy* (Cambridge, Mass.: Harvard University Press, 1961), pg. 178.
- [6] A. D. Osborn, *The Philosophy of Edmund Husserl* (New York: International Press, 1934), pg. 47. Also, see, M. Farber's, *The Foundation of Phenomenology* (Cambridge, Mass.: Harvard University Press, 1943), pp. 80-87 for further comments on the Husserl-Voigt controversy.

- [7] *Collected Papers*, 8.189. From the *Collected Papers*, 4.7, as late as 1906, Peirce, mentioning *Logische Untersuchungen*, still classes Husserl among the psychological logicians. On page 27 of J. K. Feibleman's *An Introduction to Peirce's Philosophy* the date of Peirce's comment on Husserl should read "1906" rather than "1898".
- [8] Edmund Husserl (*Göttingische Gelehrte Anzeigen*; April 1, 1891); S. 243-278. There Husserl discusses, among other things, logic as concerned with ordinary language. For a discussion of relations between Peirce and Wittgenstein on logic and ordinary language see the author's monograph: *Philosophical Comments on the Philosophies of Charles Sanders Peirce and Ludwig Wittgenstein* (Urbana, Ill.: EERL, University of Illinois, 1961).
- [9] *Collected Papers*, 8.331.
- [10] See *The Nation*, 62 (23 April 1896), pp. 330-331.
- [11] *Collected Papers*, e.g., 1.575 and 2.532.
- [12] *The Philosophical Review*, 52 (1943) pp. 187-193.
- [13] *Collected Papers*, 1.191.

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