

THE SCHRÖDER-PEIRCE CORRESPONDENCE

Introduced and edited by

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Ernst Schröder and Charles S. Peirce were members of the small circle of 19th century logicians cum mathematicians—or vice versa—who founded modern symbolic logic. Schröder and Peirce each made important contributions to the theory and notation of modern logic and, by developing and extending the researches of Boole and De Morgan, they played a large role in setting the stage for 20th century advances. They are often thought to have carried algebraic logic in the Boolean tradition to its pinnacle, at least until the much more recent work of Tarski and his followers. (See Anellis & Houser 1991) But while the importance of the work of these two men is not doubted, knowledge of their contributions is at best sketchy, and next to nothing is known about their relations with each other.

The other contributors to this issue of *Modern Logic* have done as much as anyone to fill in this important and interesting chapter of the history of logic, especially as it pertains to Schröder. But given the meager legacy from Schröder's manuscripts and letters that has been left to us, any remaining unpublished professional letters give hope for new insights into the man and his work. This is indeed true in the case of an exchange of letters between Schröder and a colleague of Peirce's stature. Therefore, it seems appropriate that what remains of the hitherto unpublished correspondence between Schröder and Peirce should be printed here.

Schröder and Peirce probably began their correspondence in 1879; in any case, by then they had begun to exchange publications. In an 1879 note in *Repertorium der literarischen Arbeiten aus dem Gebiete der reinen und angewandten Mathematik*, Schröder remarked on having recently received "from their author" copies of two publications: *Three papers on logic* and "Description of a notation for the logic of relatives." After reading these papers, Schröder felt obliged to acknowledge Peirce's priority with respect to some of the results given in *Der Operationskreis des Logikkalküls*. (Houser 1985 & 1987) Around the same time Peirce must have become familiar with Schröder's work, for his 1879 "On the Algebraic Principles of Formal Logic"—which would soon evolve into his famous "On the Algebra of Logic" which appeared in the spring of 1880 in J. J. Sylvester's *The American Journal of Mathematics*—is replete with references to Schröder's *Operationskreis*. By 1882 Peirce had adopted the *Operationskreis*, along with De Morgan's *Syllabus*, as a text for his Johns Hopkins logic course, and by 1885 Peirce would refer to Schröder, in print, as "my friend."

No letters survive from this first period of correspondence. In the earliest letter we have, dated 1 February 1890, Schröder tells Peirce that up to 1884 "I rejoiced in receiving your communications." Schröder apparently suspected that he had somehow hurt Peirce's feelings—perhaps he thought it was because he had openly challenged Peirce's claim that the full law of distribution could be proved in his 1880 algebra (see Dipert 1978 and Houser 1985, 1991)—and that that was the