

Book Review

Geraldine Brady. *From Peirce to Skolem: A Neglected Chapter in the History of Logic*.
Elsevier, Amsterdam, 2000. xii+468 pages

1 Introduction

The thesis of this book is that

Löwenheim's and Skolem's work on what is now known as the downward Löwenheim-Skolem theorem developed directly from Schröder's *Algebra der Logik*, which was itself an avowed elaboration of the work of the American logician Charles S. Peirce and his student O. H. Mitchell. We have been unable to detect any direct influence of Frege, Russell, or Hilbert on the development of Löwenheim and Skolem's seminal work, contrary to the commonly held perception. (p. 2)

From Peirce to Skolem is, thus, directed at helping to remap a part of the history of modern logic which has by and large regarded Peirce as more of a principal contributor than as one of its principal founders. Brady's approach to the first, positive part of this thesis is to analyze each work in a chain of nine, beginning with Peirce in 1870 and proceeding through O. H. Mitchell, Schröder, and Löwenheim to two papers by Skolem in the 1920s. All of them are reasonably well known in logic circles and much of the cited later material by Löwenheim and Skolem appears in van Heijenoort's classic collection *From Frege to Gödel* [18]. In fact, the present work, with its parallel title, is presumably designed in part as a complement, if not a corrective, to van Heijenoort's compendium. This is borne out at a superficial level by comparing their tables of contents: the latter, in addition to Löwenheim and Skolem, includes works of Frege, Russell, and Hilbert, but none by Peirce or Schröder. It is true that van Heijenoort and others point out the Peircean traces that are explicitly evident in Löwenheim and Skolem, but an analysis that posits a direct connection, and that spells out its exact nature, has evidently not been made before.

Since the book is not a general history but pursues a particular line of enquiry—the predecessors of some of the key ideas of first-order logic—the author makes no attempt to delve equally deeply across the board within all of the treatises under

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