

Jean van Heijenoort, *El desarrollo de la teoría de la cuantificación*. No. 23, Instituto de investigaciones filosóficas. Universidad Nacional Autónoma de México, México, D.F. 1976 (copyright 1975). 57pp.

Reviewed by  
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**Introduction.** In Spring 1973, Jean van Heijenoort delivered a series of lectures on the development of quantification theory at the Philosophy Institute of the National Autonomous University of Mexico in Mexico City. The booklet under review is the published record of these lectures and served in turn as an outline of his Fall semester of 1976 seminar at Brandeis University on "Theories of Quantification."

What follows is the unaltered reproduction of my manuscript review of van Heijenoort's *El desarrollo de la teoría de la cuantificación* first written on 14 September 1978 and privately printed in my *Introduction to Proof Theory: Papers in Metamathematics* (Itta Bena, Mississippi Valley State University, 1980), pp. 8-42. I do not now necessarily agree with all the statements or interpretive details contained in this old review, as readers of my paper "The Löwenheim-Skolem Theorem, Theories of Quantification, and Proof Theory," in T.L. Drucker (editor), *Perspectives on the history of mathematical logic* (Boston/Basel/Berlin, Birkhäuser, 1991), pp. 71-82, will recognize.

**Review.** There are several theories of quantification competing for the logician's attention. By far the most familiar is the axiomatic method, which had its auspicious beginning in Frege's *Begriffsschrift* and reached its peak in the *Principia Mathematica*. Hilbert-type systems and Frege-type systems thrived until 1931 with the publication of Gödel's results on incompleteness. The Gödel results, together with the Russell paradox and the complications introduced into set theory to resolve the paradox, dealt a heavy blow to the axiomatic method. The philosophical repercussions to the Gödel results were the rivals of logicism, formalism, and intuitionism. The