## **REVIEWS**

José Ferreirós, "Lógica, conjuntos y logicismo: desarrollos alemanes de 1870 a 1908," *Mathesis* X, no. 3 (August 1994), 255–272.

Reviewed by

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This paper aims to show that Richard Dedekind's view on the relationships between mathematics and logic is correctly classified as *logicism* according to the criteria used in the second half of the last century.

The central notions of Dedekind's system in his famous *Was sind* und was sollen die Zahlen? (1888) were class and application, and Ferreirós argues that they are logical notions by the standards of that time. The basic logical notion used by tradition was *concept* and the notion of class can easily be seen as the extensional counterpart of concept. What can we say about application? As the end of the XIX<sup>th</sup> century, applications began to be considered as some some kinds of relations (and relations as some kind of classes).

It is well known that Frege developed the foundations of arithmetics on the logical notions of *concept* and *relation* and that the afterwards troublesome *Law V*— an unrestricted principle of comprehension allowed us to go from intensions to extensions. Seen in this way, Fregean and Dedekindian approaches to the foundations of mathematics are two sides of the same logicist coin. Ferreirós also argues that from this perspective, it is easier to understand the central rôle played by set theory in the development of logicism and to explain why set-theoretical