

Review of
**DOUGLAS M. JESSEPH, *BERKELEY'S PHILOSOPHY
OF MATHEMATICS***

Chicago/London: University of Chicago Press, 1993
xii + 322 pp. ISBN 0-226-39897-8

IRVING H. ANELLIS

Although this book is primarily about philosophy of mathematics, it is noteworthy to historians of logic interested in the history of non-standard analysis for the comment made about the significance of the history of the philosophy of mathematics in the work of recent and contemporary workers and adherents of modern nonstandard analysis such as Abraham Robinson.

After writing (p. 131) that “contemporary model theory allows for the development of a consistent theory of infinitesimals,” Jesseph goes on to assert that “[T]he relevance of current accounts of the infinitesimal to issues in the seventeenth and eighteenth centuries is rather minimal ...” This is *wrong* and would most assuredly have come as much as a surprise to Robinson as to anyone familiar with Robinson’s work, in particular with §I of his article “The Metaphysics of the Calculus” [7].

Robinson opens his article by saying [7, p. 53]:

From the end of the seventeenth century until the middle of the nineteenth, the foundations of the Differential and Integral Calculus were a matter of controversy. While most students of Mathematics are aware of this fact they tend to regard the discussions which raged during that period entirely as arguments over technical details, proceeding from logically vague (Newton) or untenable (Leibniz) ideas to methods of Cauchy and Weierstrass which meet modern standards of rigor. However, a closer study of the history of the subject reveals that those who actually took part in this dialogue were motivated or influenced quite frequently by basic philosophical attitudes. To them the problem of the foundations of the Calculus was largely a philosophical question....