

Johan van Benthem, Gerhard Heinzmann, Manuel Rebuschi, and Henk Visser (editors)

The Age of Alternative Logics: Assessing Philosophy of Logic and Mathematics Today

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REVIEW

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A conference took place at the Université de Nancy 2 in 2002 entitled “Philosophical Insights into Logic and Mathematics”. The proceedings were subsequently published in book form under the above title, and the following review is intended to provide a list of the papers and authors, together with scattered comments, followed by an overall perspective on the volume and its title. The length of comments for each paper is not a measure of its importance but also reflects its accessibility.

Van Benthem wrote the introduction, “Alternative Logics and Classical Concerns”. He argues that the wide variety of non-classical systems is not an indication of an ‘anything goes’ mentality, but that it is a symbol of natural growth. He looks at external and internal influences on the developments in logic and gives a hint to what is to come with referring to truth as a ‘zero-agent notion’ and proof as a ‘single-agent notion’. His claim is that we understand first-order logic better as a result of the emergence of competing systems and suggests that we may be in a position now to rethink decisions made around 1900. He even goes so far as to hope that these variations may help to keep mathematics from looking *sui generis*, to demonstrate, “[M]athematics is just common sense continued by other means.” (p. 7)

The book is divided into five main sections, of which the first is entitled, “Proof, Knowledge, and Computation.” In this section Mikaël Cozic leads off with “Epistemic Models, Logical Monotony and Substructural Logics”. He investigates alternatives to the principle of logical omniscience, which assumes that a reasoner believes the consequences of everything he believes. He looks at the reasoning process as