

In the case of the former, the box is a predicate modifier and not a propositional operator; it is *de re* rather than *de dicto*. They say, “On the one hand, we can regard the constant as primary: *c* designates an object in the actual world and that object is said, in every possible world, to be *F*. On the other hand, we can regard the modal operator as primary: in every possible world, the object designated by *c* in that world is said to be *F*” (page 190 f).

I think the distinctions they make can be made otherwise than with predicate abstraction, and that they run descriptive singular terms and names too much together. But, arguments about this are far too extended for this review. The important point is that they offer a set of well-motivated solutions to many difficult problems, and future debate will take place in the shadow of their arguments.

This text is an excellent and most useful volume. It is pitched correctly; the exercises are just right. This text brings modal logic back to its origins in philosophy and philosophical logic. Even where one disagrees with the line being argued, the onus is to show a better line of argument. The logical and philosophical communities are fortunate to have such an excellent text focussed wholly on this area. It sets a high standard for anything following. It is to be highly recommended.

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Proof theory, History and philosophical significance, edited by Vincent F. Hendricks, Stig Andur Pedersen, and Klaus Frovin Jørgensen, Synthese library, vol. 292, Kluwer Academic Publishers, Dordrecht, Boston, and London, 2000, xii + 244 pp.—therein:

VINCENT F. HENDRICKS, STIG ANDUR PEDERSEN, and KLAUS FROVIN JØRGENSEN. *Introduction*. Pp. 1–7.

SOLOMON FEFERMAN. *Highlights in proof theory*. Pp. 11–31.

LEO CORRY. *The empiricist roots of Hilbert’s axiomatic approach*. Pp. 35–54.

DAVID ROWE. *The calm before the storm: Hilbert’s early views on foundations*. Pp. 55–93.

WILFRIED SIEG. *Toward finitist proof theory*. Pp. 95–114.

DIRK VAN DALEN. *The development of Brouwer’s intuitionism*. Pp. 117–152.

MORITZ EPPLE. *Did Brouwer’s intuitionistic analysis satisfy its own epistemological standards?* Pp. 153–178.

SOLOMON FEFERMAN. *The significance of Weyl’s Das Kontinuum*. Pp. 179–194

ERHARD SCHOLZ. *Hermann Weyl on the concept of continuum*. Pp. 195–217.

SOLOMON FEFERMAN. *Relationships between constructive, predicative and classical systems of analysis*. Pp. 221–236.

This collection of papers is based on a conference with the same title held at the University of Roskilde, Denmark, in 1997. Three systematic lectures by Feferman form the backbone of the volume. Their texts maintain the spontaneity of a lecture without sacrificing accuracy of detail and are a pleasure to read. The first one traces the path from Hilbert’s old axiomatic proof theory to Gentzen’s structural proof theory as based on sequent calculi, and ends up with a brief review of infinitary systems of proof.

Feferman’s first essay is the only one dealing with developments in proof theory from the beginning of the 1930’s on, except for a brief mention of Gödel and Gentzen by Sieg. Despite its title and the wish of the editors to “trace the development of proof theory and illuminate its growth into a mature theory” (*Introduction*, p. 1), the contents of the volume might be described better as “Hilbert’s old proof theory and the intuitionism of Brouwer and Weyl.” All the essays except the first and last ones, both by Feferman, fall entirely within this category. As an indication of the limited coverage of proof theory, it can be noted that such a great success of proof-theoretical research of the last decades as the computational semantics of intuitionistic or constructive logic, also known as the “Curry–Howard isomorphism,” does not get as much as a mention in the volume.