

non-logical, statistically based inference methods are presented.

*Readings in Knowledge Representation* is a most worthwhile reference for anyone in any aspect of artificial intelligence, from beginner to expert.

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## DISCOURSE SEMANTICS

**Pieter A. M. Seuren**

Oxford: Basil Blackwell, 1985, x+544 pp.  
ISBN 0-631-13594-4; \$39.95

Seuren's book can be useful and interesting for two different kinds of readers: firstly, for those specialists who are interested simply in problems suggested by the title itself, and secondly, for students and other people who are novices in the field of theoretical linguistics and want to reach its central points going a very difficult but also very fascinating way. This second "usefulness" seems to be not so obvious as the first one; probably it has not even been intended by the author. However, we should start this review by emphasizing *and lauding* this feature of the book in question.

Pieter Seuren does not try to build his theory without having laid the foundations of it. He places his ideas in a long tradition of linguistic thought and proposes his answers to some essential questions relating to language and linguistics. He considers the main goal of the study of language to be "an insight into the cognitive machinery which enables humans to use it the way they do" and describes and criticizes the current situation in the theory of meaning and grammar with its principal fault being the insufficiency of linguistic facts to support abstract, formal systems. Seuren resumes the ancient controversy between the anomalists and the analogists and places his book in the former tradition.

These, and many other basic theoretical statements make this book partially open *but not easy!* for non-specialists who wish to familiarize themselves with some topics of modern linguistic thought.

However, the main purpose of this book is to represent Seuren's ideas concerning semantics, especially describing the meaning of sentences from the point of view of their role in a discourse. Seuren is of the opinion that the meaning of a sentence cannot be described in isolation. The central notion of the book is thus "discourse domain", which is defined as a finite number of distinct addresses, superaddresses, and instructions. An address is a store to which every new asserted sentence in the discourse contributes new information about the individual referred to by the discourse. A

superaddress differs from the address in that it refers not to individuals but to sets of individuals.

In Seuren's estimation, the meaning of a sentence consists in "the systematic modification, or increment, which it brings about whenever it is added to an appropriate given discourse domain".

These basic definitions are contained in the first chapter which is entitled "Discourse and interpretation". They are implemented in other parts of the book, especially in chapters 4 and 5.

In chapter 2, "Grammar and lexicon", Seuren arraigns the idea of surface semantics and represents his version of traditional SA-semantics, which is based on the assumption that surface structures are not directly interpretable and, therefore, a separate level of semantic analysis is needed.

Chapter 3, "The logic and semantics of presupposition", gives us, among other things, the idea of presuppositional three-valued logic which is also developed in the appendix by A. Weijters.

The book in question contains many fragments which are really exciting. It gives a large and original picture of one of the most important topics in modern linguistics.

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## PLANNING AND UNDERSTANDING: A COMPUTATIONAL APPROACH TO HUMAN REASONING

**Robert Wilensky**

Reading, MA: Addison-Wesley, 1983, xiv+168 pp.  
ISBN 0-201-09590-4; \$25.00

## IN-DEPTH UNDERSTANDING: A COMPUTER MODEL OF INTEGRATED PROCESSING FOR NARRATIVE COMPREHENSION

**Michael George Dyer**

Cambridge, MA: The MIT Press, 1983, xvii+458 pp.  
ISBN 0-262-04073-5; \$35.00

The two books under review here have much in common: not only do they both deal with the question of comprehension of narratives in general, but they also share the view that this can be achieved via understanding of the goals of the participants involved. This coincidence perhaps stems from the shared background of the two authors, namely the Yale-based work of Schank, Abelson, and others, to which both authors make reference, in some instances extensively. In case this revelation should lead some readers to prejudge the works immediately, it must be said that the Schankian influence is less evident in Wilensky's book than in Dyer's.