KNOWLEDGE SEMANTICS

Abstract

The main goal of this book is to determine whether it is possible to develop a theory which satisfies the requirements normally placed on a linguistic semantic theory, but which does not involve a level on which meaning is defined. The theory developed in this book with the above goal in mind is called the knowledge-based theory or knowledge semantics. It is based on the premise that the meanings of sentences depend on the knowledge of the interpreter and that they include logical and factual entailments and presuppositions. According to the theory, it is impossible to define meaning, since any definition must be a paraphrase. Consequently, the theory describes only the processes operating during semantic interpretation in terms of an arbitrary knowledge base, representing the knowledge of the interpreter. The theory is developed within the revised extended standard theory (REST). Its embodiment is the knowledge component, part of the semantic component. The input to the component is the indexed surface structure enriched by traces, produced by the rules of construal and conditions on binding defined under REST. The indexed surface structure is mapped onto the input semantic marker, represented in higher-order predicate logic notation, and then onto the knowledge base, represented in the same notation. Within each proposition in the knowledge base there are associated propositions implied by it. The output of the knowledge component, or the interpretation of the sentence, is the knowledge base, with the input semantic marker superimposed on I, and the sum of all implications resulting from the mapping. The theory shows that these may be infinite in number. The theory also defines the processes necessary for meaning acquisition and extension. These do not appear to lie outside a linguistic semantic theory. It is concluded that it is possible to develop a viable semantic theory not requiring a level that defines meaning. Such a theory is not only capable of satisfying the
requirements normally placed on a linguistic semantic theory but also raises many interesting empirical issues which do not come up under any of the established theories.