

The Generative Lexicon

James Pustejovsky
(Brandeis University)

Cambridge, MA: The MIT Press, 1995,
xii+298 pp; hardbound, ISBN
0-262-16158-3, \$35.00

Reviewed by
J. Terry Nutter

The past decade has seen a tremendous explosion in interest both in practical structures for lexicons and in theories of lexical semantics. Pustejovsky's book represents an interesting attempt at providing a new and powerful lexical semantic theory, taking as its starting point a serious view of the generative nature of lexical compositionality. The heart of the attempt lies in treating word senses in context as the result of complex but well-defined functions of relatively simple and open basic lexical meanings. The author borrows views from traditional linguistics and from philosophy (in some cases, reaching as far back as Aristotle) to find categories that motivate different forms of combination in differing cases, attempting to provide a wide range of rich interpretations from a relatively simple and narrow set of initial constructs. The strength of the work lies in its combination of broad principles for interpretation with very specific details and mechanisms.

The book suffers, however, from a number of weaknesses. The first, and most obvious, lies in the dismissive treatment of modern lexical semantics. The author argues over and over that the standard approach to lexical semantics consists of a simple enumeration of meanings, with mechanisms to select among them. This simply is not true, and has not been for a very long time. To cite a single example, the extensive work in the theory of lexical relations, in several of its incarnations, uses far more sophisticated and layered representations. Indeed, in a number of areas (for instance, his discussion of merology and the difficulties of part-whole relations, as well as all his discussions of taxonomic and inheritance issues), it would appear that work within the community that has been concentrating on lexical relations could contribute substantially to this effort. There is, ultimately, no need for every book to acknowledge every other theory going. But when a volume chooses to characterize the current state of the field, it should at least mention all the dominant theories of recent years.

At a different level, the early chapters abound with examples of legal/illegal sentence pairs, intended to be motivating. Such pairs are, of course, common throughout the literature. Unfortunately, in this case, a large proportion of the "illegal" examples looked fine to me. This may seem like picking an unnecessary nit—and normally, I would reject it as such—but when the contrasts are presented as motivating fundamental parts of a theory of word meaning, it is particularly important that they be convincing, or that, at the least, they be presented with some evidence that some particular population found them convincing. A great many of Pustejovsky's arguments throughout rest on face validity. It is troubling, therefore, that his data do not always seem valid on their face.

A separate problem, less to do with content than with style, lies in the volume's uncomfortable relationship with its audience. It is hard to see whom the author had in mind as he wrote. In the early pages, Pustejovsky discusses at tedious length such

utterly basic concepts as categorial alternation, suggesting that he means to address complete novices. But bare pages later, he introduces examples using the standard notation of unification grammars, which he exploits in its full generality throughout the text, without explanation or comment. It is hard to see how readers who don't already know about categorial alternation could hope to read many of his examples, let alone understand them. In general, linguistic material is presented at a level low enough that I found it uncomfortable; and likewise for the philosophical information, whose presentation I also found shallow. By contrast, material taken directly from computational mechanisms and paradigms was presented as if to an expert audience. Experts in the techniques of computational linguistics might be unfamiliar with Aristotle, but they can reasonably be assumed to know who Chomsky is and what the significance of generative grammar was.

In summary, this book promises more than it delivers, but it delivers more than enough to make it well worth reading. For those who are unfamiliar with the emerging field of lexical semantics, while it will not provide a balanced picture of that field, it will present an interesting entry point. For those who work in the field, it covers a wide range of interesting and serious problems, in ways that suggest fruitful interaction with a variety of other views and approaches.

J. Terry Nutter's general background lies in knowledge representation and inference, cognitive modeling, and computational linguistics, including connected text generation and natural language interfaces. She has been involved in research in lexical semantics for nearly ten years. At present, she is a visiting scholar at the University of Mississippi. Nutter's address is: Route 1 Box 118-1, Oakland, MS 38948; e-mail: nutter@watervalley.net