Prikazi knjiga
Book reviews
Rezensionen

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Rochelle Lieber: *Morphology and Lexical Semantics*. Cambridge Studies in Linguistics; Cambridge University Press, 2004, 196 pages. ISBN: 0 521 83171 7.

Despite a revival of interest in the study of morphology in recent years, Rochelle Lieber's book Morphology and Lexical Semantics (2004) is one of the few studies in which the semantics of word formation has received a systematic book-length treatment. The book is designed to set the foundations for an encompassing, broadly cross-categorial theory of lexical semantics in word formation. While the details of Lieber's analysis may not always seem convincing, the book is still laudable for its commitment to presenting "a framework in which many traditional questions can fruitfully be raised, discussed, and answered" (p. 3). The primary goal of the book is to develop a theoretical apparatus which is necessary to study the meanings of morphemes and how they combine to form the meanings of complex words. Moreover, Lieber provides more natural explanations for some of the problems that have long hampered word formation studies (e.g. the problem of extended exponence, i.e. derivational redundancy etc., see below). Crucial in that regard is the shifting of analytical focus so as to include, apart from morphological, phonological and categorial factors, semantic and pragmatic considerations as well.

The two basic parts of Lieber's framework are: i. the system of semantic primitives, which account for the rigid and formal decompositional part of the semantic representation, i.e. the so called lexical semantic skeletons somewhat akin to Jackendoff's Lexical Conceptual Structures; and ii. co-indexation, the mechanism for "the creation of a single referential unit out of two distinct se-

mantic skeletons that have been in a relationship of either juxtaposition or subordination to one another" (p. 10). Lieber also makes room for encyclopedic knowledge in her account of word formation, although unfortunately it remains largely unaccounted for. It is construed as "a list of bits and pieces of information in no particular order" (p. 35). That part of lexical semantic representation, the so-called body, is considered to be holistic, variable, and not easily formalizable. In order to preserve the integrity of the formal system developed, Lieber seems to put the semantic body on a different footing and calls it up to account for cases of co-indexing non-default skeletal elements, and to finish off the interpretation where the semantic feature analysis leaves off. It is also unfortunate that the lexical semantic properties of derivational bases (see fn. 2), which are crucial in Lieber's theory of co-indexation, go unexplained. However, they seem to implicitly depend on what can reasonably be considered structured encyclopedic knowledge, like e.g. canonical event models in the sense of Langacker (1987), DeLancey (1991), or Dirven (1999).

The book consists of seven chapters. It starts with an introduction in which the author states the main questions of her study, which have been appearing on and off in word formation studies:

1. The polysemy question: why are derivational effixes frequently polysemous? Do they have a unitary core of meaning, and if so, what is it? E.g., -*er* affix creating agent nouns (writer), patient nouns (loaner).

2. The multiple-affix question: why does English often have several affixes that perform the same function, like e.g. -*ize* and -*ify* for causative verbs; -*er* and -*ant* for agent nouns?

3. The zero-derivation question: How do we account for word formation in which there is semantic change without any concomitant formal change?

4. The semantic mismatch question: Why is the correspondence between form and meaning in word formation sometimes not one-to-one? E.g. some morphemes seem to mean nothing at all, e.g. -*in*- in *longitudinal*; there is 'derivational redundancy', e.g. dramatical, meanings of some morphemes can get subtracted from the overall meaning of the word, e.g. realistic does not mean 'pertaining to a realist.'

After surveying the relevant literature in the introductory chapter, in chapter one Lieber begins to chart the system of semantic features. This system gets progressively expanded in subsequent chapters as they come to bear on the analyses and theoretical issues that follow. The second chapter deals with the

phenomenon of co-indexation and is followed by a chapter on the semantics of verb formation, more precisely on selected verb forming affixes and conversion. The next two chapters extend the featural system in order to account for the parameters of location and quantity. Before providing some concluding remarks in chapter 7, in chapter 6 Lieber zeroes in on the problems of correspondence between form and meaning.

In chapter one Lieber tries to justify her first theoretical device, the binary-valued semantic features, though only a small set of them like [material] and [dynamic]. These features are claimed to belong to the formal part of the semantic representation, the so-called skeleton, and to be able to distinguish some broad semantic classes of nouns, verbs and adjectives as simplex lexemes. For example, the features [material] and [dynamic] are said to delineate major ontological classes; the former the category of SUBSTANCES/THINGS/ESSENCES (coded as nouns), the latter SITUATIONS (coded as verbs). Beyond that, they also attribute semantic content to existing and possible derivational affixes in English, and capture the commonality between derivational affixes. For example, the large part of the semantic content of and the commonality between the affixes *–er, ee, -ant/-ent, -ist* resides in the features [+material, dynamic ([ ], <base>]; all these affixes form concrete dynamic nouns (which is what agents, instruments, patients, experiencers have in common). Lieber claims that the two features give us the semantic means to characterize these affixes in a sufficiently abstract way to capture their commonality. In other words, their shared semantics is captured by their almost identical semantic skeletons, and the differences reside in their taking different syntactic bases, in their different argument structural properties, additional differences pertaining to the relevance or irrelevance of notions taken over from the semantic body, e.g. those of volitionality and sentience (which is explained in more detail in chapter two). Moreover, Lieber's isolation of the highly abstract affixal meanings has some important implications for morphology at large. To give just one example, the featural system allows for equal treatment of the basic semantics of both 'lexical' and 'transpositional' derivations (cf. Szymanek 1988), both can be characterised in the form of features like [material], [dynamic].

The second part of the system, the theory of co-indexation is presented in the second chapter. Co-indexation allows one to integrate the referential properties of an affix with those of its base. More precisely, in a composition of semantic skeletons, the highest nonhead argument gets coindexed with the highest (preferably unindexed) head argument. Indexing must also be consistent with semantic conditions on the head argument, if there are any. We illustrate this principle below in a simplified form, using Lieber's example *writer* and *employee*.

writer
[+material, dynamic ([$_i$],   [+ dynamic ([$_i$], [   ])])]
            -er   *write*

Since *–er* does not place any particular semantic conditions on the linked base argument, the co-indexation principle will link the affixal "R" argument to the highest base argument (which accounts for the versatility of *–er* in absorbing arguments of whatever thematic interpretation, agents, experiencers, instruments, patients; thus, for its polysemy).[1]

employee
[+material, dynamic ([$_{sentient, \underline{nonvolitional}\text{-}i}$],   [+ dynamic ([   ], [$_i$])])]
            -ee   *employ*

Unlike *-er*, the affix *–ee* places semantic conditions on the argument of its base (see above). The verb *employ*, being an activity verb, has the skeletal feature [+dynamic] and two arguments, the first of which is volitional, and therefore incompatible with the "R" argument of the affix. The second argument is sentient but not necessarily volitional, which makes it a better candidate for co-indexing. The two are co-indexed and the "R" argument then shares the 'patient' reading of the coindexed base argument.

While these suggestions indeed account for very many cases, some unconvincing analyses result from failure to explain the source of the relevant argument structures[2] and from a somewhat blind application of the Principle of Co-indexation. For example, the author suggests co-indexing between the "R" argument of the affix *–ation* and the highest argument of the base verb *prepare* in the process of ultimately deriving the meaning of the synthetic compound *meat preparation*. But, besides being an instance of (somewhat unappealing) mechanistic application of the Principle of Co-indexation, this move also happens to be very fortunate as it does not seem to get in the way of a more straightforward co-

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[1] For a somewhat less mechanistic account of case roles in general, which are said to be characterizable as results of construal operations over structured event schemas, see DeLancey (1991), also compare Ryder's (1991) and Panther and Thornburg's (2002) account of the polysemy of *–er*.

[2] They are claimed to be different from standard predicate-argument structures (although their status is not too clear either, cf. Rappaport 1993), and to form part of the lexical semantic representation of a word. Unfortunately, nothing more is said about them, so that I found myself wondering about the plausibility of co-indexing the "R" argument of the suffix *–ation* with the first argument of the verb *prepare* (agent). Such co-indexing can only be justified by the blind application of the Principle of Coindexing, as there seems to be no semantic correspondence between the selected parts of their respective argument structures.

indexing between the "R" argument of the first compound stem (*meat*) and the second, internal, argument of the verbal base in compound formation.

> *meat preparation*
> [+material ([$_j$]]   [-material, dynamic ([$_i$], [+dynamic ([$_i$], [$_j$])])].
>   *Meat*   *-ation*   *prepare*

Lieber's approach has some obvious, though limited, parallels in cognitive accounts of derivational morphology (cf. Langacker 1987: 334). E.g. morphemes are said to have semantic content albeit highly schematic; *-ful* is analyzed as a schematic adjective, (cf. [-dynamic]), *-er* as a schematic noun (cf. [+material]) and they enter into valence relations with their bases which have more elaborate semantic content. Lieber's theory of co-indexation has an analogue in valence relations, which are established between an affix and its base on the basis of correspondences between their corresponding substructures. For example a verbal base elaborates the schematic verbal substructure of the nominal affix *–er*. Where the two analyses part company is in the nature of correspondences; Lieber leaves the matching to the Principle of Co-indexation. Even though the Principle is not always blind to isolated lexical semantic properties of the relevant arguments (see the constraints on volitionality and sentience stipulated for *–ee* above) and can be violated under "paradigmatic pressure"[3] it is stipulated primarily in semantic configurational terms in abstraction from the particular semantics of the two respective structures. Cognitive Grammar, in turn, attributes structure to the 'semantic body' such that the structures recruited from it can be compared and sometimes even re-construed in order to be blended with the equally structured semantics of the affix. Under such an account both argument structural properties and particular semantic properties like volitionality or sentience would be identifiable in and derived from structured encyclopedic knowledge. We leave open the question of whether and how Lieber's theory of semantic primitives would benefit from adopting a more integrated account of meaning, such that both the structured and the individual semantic notions would in fact be derivable from larger primitive constructs such as semantic frames and/or grammatical constructions. After all, this is not the framework Lieber develops her theory in and should not be expected to be adopted wholesale either.

In chapter 3 Lieber's system is applied to an analysis of derivation of verbs through the affixes *–ize, -ify*, and through conversion. In particular, the affixes

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[3] "Especially when forced by pragmatic circumstance - the lack of an existing affix with the necessary meaning and the need for a word – the meaning of an affix may be streched" (Lieber 2004: 179). These are the cases which result in a type of polysemy which Lieber, following Copestake and Briscoe (1996: 18-19), calls *sense extension*.

-ize and *–ify* are associated with a unitary skeleton, and the polysemy displayed by their central derivatives is claimed to arise from a combination of factors including the semantic category of the base and the positions in the affixal skeleton with which the base argument is co-indexed (the type of polysemy that Copestake and Briscoe refer to as *constructional polysemy*). This allows Lieber to propose a unitary polysemy account of verbs as diverse as e.g. *legalize, oxidize, hospitalize, philosophize, peasantize, Marxize*. Although one certainly finds polysemy between various meanings of verbs in *–ize* and *–ify*, especially between the caused change of location and caused change of state readings; I am reluctant to accept an analysis which captures all the commonality at this highly abstract level. Polysemy can still be maintained if, instead of reducing all meanings to just a single 'skeleton' or schema (which may also be present in a 'network' of senses), we propose motivated links between different meanings, not all of which are immediately derivable from the same schematic meaning. However, in order to be able to even consider such a proposal, one would have to abandon the system of objectivist semantic features and work with concepts such as metaphorical and metonymic links between conceptual event schemata, which is not in the spirit of the analysis adopted in the book under review. Further, Lieber accounts for more problematic cases, such as performative and similative *–ize* verbs, as effects of paradigmatic pressure which conspire to force genuine sense extensions to the suffix *–ize*. Details aside, in this case of sense extension the semantic skeleton for the more productive *–ize* patterns is proposed to have dropped a large part of its structure. What remains slightly unexplained is, why resort to effacing a part of the otherwise very powerful skeleton of the affix *–ize*, if language has at its disposal a less picky and a more 'roundabout' way of filling lexical gaps, i.e. conversion?

We now turn to Lieber's account of conversion, which we hold is her weakest descriptive spot. Namely, her analysis has not changed much since her 1992 account. For Lieber, conversion is nothing but a form of coinage, a result of relisting existing vocabulary items into the lexicon under the new category label. Although at the beginning of the book Lieber explicitly states that her featural system is probably in need of extension, she does not seem to think of this as the major obstacle in accounting for the meanings of conversions. Instead she claims that "the variety of meanings that can be expressed by zero affixation is so large that there should be no specific meaning attached to the proces of zero-derivation at all" (Lieber 2004: 91) and that "[c]onversion is, to be sure, productive, but it is not **systematic** (original emphasis). Rather, it is a random and idiosyncratic process that can give rise to any kind of verb at all" (p. 95). The crux of the problem seem to lie in the inability of Lieber's featural system to account for the polysemy of conversions by means of reducing it to a single semantic skeleton, as Lieber more or less managed to do in the case of the affixes *–ize* and

–ify: On the other hand, it is very likely that conversion is multifunctional, and that, if it were construed as zero-derivation, one would need to posit multiple zero affixes to discuss their different functions, affixes that would correspond to the different, yet sometimes overlapping functions of overt affixes like *–ize* or *-ify* etc. I believe that the system of semantic primitives would not have to be expanded beyond recognition, but would only have to admit a few additional features to account for the skeletal part of their meanings. However, such features as would be necessary to account for the highly productive instrument verbs (*to jet*, *to boot, to hammer, to scoop*) would probably seem suspect for any formally oriented linguist because of their potential lack of versatility and applicability elsewhere in the lexical and grammatical system of English.

In a less formalistic mould of Chapter 6, Lieber discusses some of the problems that have been inadequately handled by various morphological theories. Many theories proved inadequate because they relied on morphology and phonology to the neglect of semantics. The problems include restrictions on combinability between particular bases and affixes, derivational redundancy, also referred to as 'extended exponence,' empty morphs and semantic subtraction, which all receive reasonable explanations within Lieber's theory. Besides arguing for a reanalysis of 'empty morphs' as cases of stem allomorphy and a similar dissolution of the problem of semantic subtraction, the problems of combinability of particular bases and affixes as well as of derivational redundancy seem to be disolved, or are on their way to being dissolved, by Lieber's turn to functional, i.e. semantic and pragmatic explanations. For example, Lieber argues

> that nothing prevents derivational redundancy – cases in which a semantic feature is supplied by more than one derivational morpheme in a word – and that derivational redundancy is even occasionally favored by pragmatic circumstance. We tend not to coin words with redundant affixes unless they are useful. (p. 180).

Most straightforward examples of useful redundancy are affixes like *re-* and *over-* which can be repeated to good effect, allowing iterative and scalar readings as in *to re-rewrite* or *to over-overcompensate* respectively.

The kind of argumentation offered in the last chapter of the book provides a nice counterbalance to a more formalistic presentation of the theory in the first five chapters. Of course, in linguistic theory and description formalism and functionalism need not be mutually exclusive, and Lieber's theory certainly accomodates both. Further, although we believe that encyclopedic knowledge has not been amply discussed in this book, especially given its importance to at least the theory of co-indexing, this book has still much to commend it for. First, it has brought center stage many of the questions that could not even have been raised, let alone fruitfully discussed in accounts that neglected semantics. Sec-

ond, it imparts meaning to derivational affixes, even the so-called transpositional ones, and so is better equipped to discuss semantic compositionality in word formation. Third, it correlates the semantic analyses of individual affixes with patterns of morphological productivity; and finally, it gives functional explanations of many recalcitrant phenomena, which other non-semantic theories attempted, but failed to explain. Despite the fact that some readers may not always agree with details of some of the analyses or may have objections due to diverging theoretical orientations, Rochelle Lieber's book deserves praise for its ardent commitment to the semantics of word formation and for the range of questions it has brought to the fore for more linguistic discussion.

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