Välimaa-Blum, Riitta. 2005. *Cognitive Phonology in Construction Grammar: Analytic Tools for Students of English.* **Berlin: Mouton de Gruyter. 271 pages. ISBN 978-3-11-018608-6**

JOHN. R. TAYLOR
University of Otago

I approached this book with a good deal of anticipation. Cognitive linguistics is still very much focused on the study of conceptual structures, phonology being largely ignored or even considered not to fall within its purview. This neglect of phonology is very much to be regretted. The phonology of a language is no less amenable to a cognitive treatment than the study of word meaning, for example, in that pronunciations, just like word meanings, have to be mentally represented. Similar kinds of issues arise in the two areas, too. An important theme in lexical semantics has concerned the amount of polysemy than needs to be postulated, and how to strike a proper balance between mentally represented meanings on the one hand and context-dependent readings on the other. Analogously, phonologists need to enquire about how word pronunciations are mentally represented and how these representations relate to the pronunciation variants that occur in speech events. As the title of the present volume indicates, the notion of construction may be as relevant in phonology as it is in syntax. This is most obviously the case with regard to patterns for word formation. But even such a strictly phonological construct as the syllable is also amenable to a constructionist account, in that admissible syllables in a language need to conform to more abstractly characterized 'syllable constructions' (Taylor, 2004). A book, therefore, on cognitive phonology, especially one that promises to incorporate phonology within construction grammar, is most timely. However, I found the book under review rather disappointing, in several respects.

Let us consider, first, its contents and coverage. Leaving aside Ch. 1 (which offers a brief overview of cognitive linguistics, with some remarks on constructions and construction grammars), most topics addressed in the book are basic issues that are covered in the many excellent introductions to English phonology that are already on the market. Ch. 2 discusses the consonant and vowel articulations of English, treating such matters as place and manner of articulation, vowel height, and so on. Ch. 3 accepts without question the validity of the phoneme concept, with sections on minimal pairs, complementary distribution (clear and dark 'l'), and free variation. Ch. 4 deals with morpheme alternations (*music-musician*, and the like; more on this below). Ch. 5 addresses stress location in English words. The topic is approached mainly from the point of view of various suffixes and prefixes and their effects on stress location within the derived word. Ch. 6 deals with intonation, but barely goes beyond the basics of the Hallidayan analysis (Halliday, 1970), introducing such topics as tone unit, tonic syllable, rising vs. falling tone, and their 'default' associations with statements and two kinds of questions (polar and *wh-*). It is acknowledged that polar (yes-no) questions do not always have a rising intonation as per the default, also that intonation is very much a matter of information structure and speaker-hearer relations. But these matters are not pursued, nor are they illustrated with any actual discourse examples.

Given that the topics addressed in the book are all rather basic, and to be found in just about any introductory textbook, our attention must go to the supposedly 'cognitive' perspective which the author adopts. In various places in the book, the author cites experimental evidence (e.g. Pierrehumbert, 2001; Pisoni *et al.*, 1985) to the effect that speakers store words in rich phonetic detail, not at all in an abstract, or underspecified format. Pairs such as *music* and *musician*, *divine* and *divinity*, *wife* and *wives*, would accordingly be mentally represented in a form which is schematic for the range of pronunciations which these words receive in utterance events. A speaker may, no doubt, become aware of the phonetic correspondences between these pairs, and may even notice the parallels between e.g. *wife/wives*, *leaf/leaves*, *life/lives*. This would allow the abstraction of a schema which accommodates the correspondences between (certain) singular and plural nouns; the schema, of course, takes the place of what in other theories would be regarded as a rule for plural formation. This, at least, is the 'cognitive linguistic' tack that I would take on the matter (Taylor, 2002). The author, however, proposes an amalgam of rich phonetic representation on

the one hand and a three-level derivational theory on the other. There are three levels of representation. These are the morpheme level, the word level (called, curiously, the 'phonemic level'), and the utterance level (called the 'phonetic level'). The morpheme level lists the pronunciations of all of the allomorphs of a morpheme. Thus, the morpheme {wife} has the dual entry [waɪf] and [waɪv], {music} has the entries [ˈmjuːzɪk] and [mjuˈzɪʃ]. Representations are this level are rich in allophonic detail, yet, the author claims that they do not contain information about stress location, nor about syllabification. At the word level, morphemes are combined in accordance with various word-formation constructions. Here, words are syllabified and stress is assigned. Level 3 handles sandhi and other 'post-lexical' phenomena.

The level theory, in particular the idea that morphemes are stored in an unpronounceable form (unpronounceable, since stress and syllable boundaries are not marked), goes against the monostratal approach that cognitive linguists (and others) have pursued in the study of syntax (Langacker, 1987). The problems associated with the author's approach come to the fore in her treatment of the so-called linking 'r' in non-rhotic accents (like my own). It is assumed that orthographic 'r' is present underlyingly in the morphemic representation of words such as *far* and *farm*. The 'r', however, only surfaces at the word or utterance level if conditions are appropriate. Compare now *far (r) and near* with *ma (r) and pa*. The presence of the 'r' in the two phrases would need to be accounted for by two quite different processes, one which allows an underlying 'r' to surface, the other inserting an 'r'. Much simpler, I would have thought, and more in keeping with the facts, is to suppose that the very same process operates in each of the two cases, namely, that an 'r' may be inserted between two vowels, the first of which is non-high. (Alternatively, in this situation, a glottal stop is inserted between the vowels; see Taylor 2002). On this account, *far* would be mentally represented in the form in which it is pronounced, namely, as [faː]. We would also avoid the problem of the underlying 'r' in *farm* which never actually surfaces.

Another of my reservations about the book concerns the less than perspicuous way in which generalizations about English phonology are stated and presented. Take, for example, the chapter on word stress. According to the author's theory, morphemes (and monomorphemic words) are stored in the lexicon without stress allocation, unless they happen to be exceptions to the rules. It is important, therefore, to state precisely what the rules

are, in order that we know what the exceptions are. The place to begin, I would have thought, is monomorphemic words, of the kind *algebra*, *agenda*, *America*, *maintain*. The 'rules' - which could readily be represented in the form of stress-placement schemas - are nowhere clearly stated in the chapter. The rules (see Giegerich, 1992, for a good account), or 'schemas', rest on principles of syllabification and on a distinction between light and heavy syllables, which in turn presupposes the distinction between short and long vowels (alternatively, lax and tense vowels). Secondly - and this is something which the author appears to have missed - nouns behave differently from words of other categories. For nouns, the Latin stress rule applies. The Latin stress rule assigns stress to the second-last syllable if it is heavy, otherwise, to the third-last syllable. The final syllable, in other words, is ignored (of course, if the noun contains only one syllable, then, perforce, it is stressed; likewise, if the noun contains only two syllables, stress must fall on the second-last, irrespective of its weight). There are, to be sure, a significant number of exceptions to the Latin rule, an important group being nouns where stress is attracted to a final syllable containing a long vowel, such as *July*, *arcade*, *magazine* (in conservative pronunciations). With respect to words which are not nouns, a variant of the Latin rule applies. A final consonant (if there is one) is ignored. Then, if the final syllable is heavy, it is stressed, if not, stress falls on the second-last syllable. Most of these topics (except, as far as I can see, the different behaviour of nouns vis-à-vis non-nouns) are, to be sure, mentioned somewhere or other in this chapter and elsewhere, but they are nowhere brought together in a succinct, and easily understood form. What we have, instead, are all kinds of seemingly ad hoc explanations put forward to account for whatever words are under consideration. Symptomatic is the fact that the author sometimes describes stress location with respect to the end of a word, e.g. as falling on the penultimate or antepenultimate syllable, sometimes as falling on the first or the second syllable, that is, with respect to the beginning of a word. This inconsistency can only add to the confusion of the beginning student.

The main thrust of the chapter, as mentioned, concerns the role of affixes. Affixes come with their own constructional schemas, which determine stress location (and also vowel weight) in the complex form. A clear case would be the adjective-forming -ic suffix, which places stress on the preceding syllable. This promising approach is compromised by the claim (p. 162) that stress in *logic* is also assigned by the same principle, even though *logic* is not a

derived adjective and the final -*ic* would not normally be regarded as suffix (what is it suffixed to?). The approach is probably a consequence of the author's view that affixes do not actually have any meaning in themselves (p. 163); she therefore regards any word ending in -ic as fair game for the affixation rule. But she is then faced with the task of accounting for the 'exceptional' stress placement in *arsenic, rhetoric, turmeric,* and several more (p. 184) Actually, in terms of stress placement in non-derived nouns, these are not exceptions at all.

An approach which focuses on the role of affixation requires that complex words are properly analyzed by speakers. One of the most curious passages in the book (pp. 200-202) does address the question of morphological analyzability. What is curious about the passage is that the author seems to assume that expressions are analyzable to the extent that they are entrenched; she then expresses surprise that speakers may not be aware of the internal structure of entrenched expressions. This, surely, gets it the wrong way round! As an expression gets more and more entrenched through frequency of use, it becomes automated, it acquires unit status (Langacker, 1987) and can be accessed and performed as a pre-established routine, it does not have to be assembled from its parts, nor is the contribution of the parts prominent to the user.

My final reservation about the book concerns its suitability as a pedagogical text. One of the beauties of teaching phonology is that it provides an arena, more circumscribed than syntax, where students can be introduced to techniques of 'doing linguistics'. The facts are usually evident to all, namely, how words are pronounced. But why are words pronounced as they are, e.g. with stress allocated to certain syllables and not to others, with 't'-flapping possible in some words but not in others? (because it 'feels right' to pronounce the words that way). But where does this 'feeling' come from? What are the generalizations which the data conform to? How can we test any generalizations that we might put forward? How to account, in a principled way, for pronunciation variation between speakers, and even within a single speaker? How to evaluate competing generalizations? Can we ascribe 'psychological reality' to our generalizations, and how might we decide the matter? And why should the generalizations be as they are? These are bread-and-butter issues to practicing linguists. At the very least, a book claiming to introduce students to 'analytic tools' should contain a range of study questions which challenge students to formulate, to test, and to refine generalizations, in the first instance, on 'data sets' provided by the instructor. The kinds of tasks 'for further

thought' suggested at the end of each chapter of this book, which invite students to find their own examples and to do their own analysis on them, just do not work, in my experience.

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