

James P. Blevins. 2016. *Word and Paradigm Morphology*. Oxford: Oxford University Press. Pp. 249.

Reviewed by Tarja Riitta Heinonen

## 1 Introduction

The back cover advertises the volume *Word and Paradigm Morphology* by James P. Blevins to a wide readership – even to non-specialists as an introduction to morphological theory from the word and paradigm perspective. I therefore imagined that I, with a degree in linguistics and some familiarity with morphological issues, would safely fit into the target audience for this book. After having worked through the book twice with considerable effort, I am sorry to conclude that I cannot quite share the optimism of the blurb.

As the volume addresses “a wide readership”, it is not an easy-to-read textbook, which would first introduce the reader to the basic concepts of the field before going further into details, recent developments, and the like. Instead, the reader is thrown onto the middle of the battlefield of competing morphological camps (the good ones being those that do not believe in morphemes). I would have preferred an overview on the current state of affairs in morphological theory, which would have provided a backdrop for a more detailed account of the word and paradigm approach. Only upon reading the book for the second time, and with the help of some further reading, was I able to make decent sense of it all, and to see the consistent thread through the book I had missed on the first go. On the other hand, the style is somewhat repetitive, which makes reading flow less smoothly. My experience is very likely related to the fact that the book was written over a long period of time, and that its goal and focus were changed more than once (p. x).

While the book is demanding, it is also rewarding. There are plenty of useful references, and examples from languages like Latin, Georgian, Estonian and Russian give food for thought. Theoretical issues and morphological phenomena are successfully presented side by side. In the last two chapters, Blevins ponders what kind of morphological model is compatible with what we know about paradigmatic relations, language

learning and use. I found the section most relevant for *any* book on linguistic theory.

## 2 The classical model and what is wrong with the concept of *morpheme*

The volume is divided into two parts: the first is dedicated to the *classical WP model*, while the second deals with *contemporary WP models*. The focus of the first part is, however, on the weaknesses of the morpheme-based analysis, rather than on the properties of the WP model per se. The discussion starts with Hockett's 1954 classification of grammatical models into three types: Item and Arrangement (IA), Item and Process (IP), and Word and Paradigm (WP). The title of Hockett's paper actually refers to "two models", not three, since it is about the models IA and IP and how they compare to one another, but the WP model would have deserved "the same consideration", even though "lack of time prevented this", as Hockett puts it (1954: 210).

For a novice, much of Chapter 1 *Revival of the WP model* is difficult to follow. The WP model is characterized as classical, or even ancient, but a reader who has not studied Latin or Greek at school does not get much wiser. A reference is made to a 1959 paper by Robert H. Robins (*In defence of WP*), and, later on, the analyses of Greek and Latin examples come from modern sources. An account of what the classical model was or is like would have been in order here, since there are several references to Priscian and/or the classical model all through the book (see, for instance, p. 54 Footnote 4, and pp. 106–108, 119, 127). The treatment of the recent adaptations, or the real revival phase of the model, is postponed to the second part of the volume.

Chapter 2 *The Post-Bloomfieldian legacy* tackles the concept of morpheme, "a minimal unit of meaning", the main antagonist of the story. It used to be an uncontroversial term for language description, and it is still used as such, particularly in introductory textbooks (p. 19). However, according to Blevins, this practice is based on a simplified view of morphological analysis consisting merely of the segmentation and classification of atomistic constituents. On the contrary, the morpheme should be regarded as a "purely theoretical construct" that is not related to any pretheoretical notion (p. 42).

The concept of morpheme has come to be associated with the generative theory, and, in the bigger picture, it is generatively and

functionally oriented schools of thought that are set against each other. Spencer (2013: 1–2) confirms that the morpheme has been “under sustained attack” in recent decades and asserts that it is completely incompatible with such notions as *lexeme* and *word form*: one cannot even “rationally believe that *cats* consists of a ‘cat’ morpheme *cat* and a plural morpheme *-s* and simultaneously believe that there are lexemes such as CAT with forms {*cat, cats*}”. Perhaps a heavy emphasis is intended on the word *simultaneously*, since in his 1991 textbook, Spencer was able to handle all these concepts and a lot more (Spencer 1991).

Chapters 3 to 5 cover the cornerstone concepts of the WP model, *Words, Paradigms* and *Analogy*, one by one. It is argued that words offer a psychologically more realistic approach to language processing than sub-word units. Recent experimental evidence seems to confirm this view: word frequencies affect lexical processing (pp. 48–49; see also Lõo et al. 2018), and related word forms are mentally linked (p. 50). The fact that word forms may be related in two ways (they may be inflectional forms of the same lexeme, or they may represent derivationally related different lexemes) leads to a familiar question on how to distinguish regular derivation from inflection, and how to analyze hybrid categories such as participles.

The partially pedagogic concepts of *paradigm* and *inflectional class* are the topic of Chapter 4. New word forms are deduced on the basis of already known forms and exemplary paradigms for given inflectional classes. However, what is important in the present context is the fact that the forms are quite often differentiated from each other in a way that speaks against a morpheme-based analysis. For instance, if a Russian noun ends in *-u*, it is dative, accusative, or instrumental singular depending on its declensional class; the element *-u* does not have a context-independent meaning (p. 72). One might counter by claiming that the element *-u* is simply polysemic, but such an analysis is more contrived than one that appeals to paradigm slots. The same applies to theme vowels. In Spanish, there is a phenomenon called *vowel reversal*. A first conjugation verb *hablar* ‘to speak’ has the 3rd indicative form *habla* and the subjunctive form *hable*. In the second and third conjugation verbs (such as *vivir* ‘to live’) the pattern (*a/e*) is inverted: *vive* in the indicative, *viva* in the subjunctive (p. 112). Again, the vowel cannot be the sole marker of mood, and the interpretation of a verb form is based on knowing its inflectional class. Chapter 4 also covers such key terms as *principal parts* and *conjugational series*, as well as how paradigms are generally organized.

The end of the chapter asks how much of this organization is pedagogical idealization.

In Chapter 5, analogy is (unsurprisingly) contrasted with rules. Proportional analogy provides a way of deducing new forms from already known forms without the need to control the grammatical features that are associated with the forms. For instance, if the genitive singular of an Estonian noun is *X*, the nominative plural is *Xd* (p. 114). Conflicting grammatical features can be ignored. Several similar cases are cited from Latin verb inflection. Moreover, the concept of a non-morphemic element, *morphome* (originally from Aronoff) is introduced (p. 105). At the end of the book, the concepts of morpheme and morphome will be reunited for a brief reappraisal of what a general model for morphology could be like (pp. 224–225). I will return to this point at the end of the review.

### 3 The contemporary models

The second part of the volume covers “Contemporary WP models”. A major division is made between *Realizational models* and *Implicational models* (Chapters 6 and 7, respectively). Realizational models do not make up a uniform framework but are “defined less by shared assumptions than by a shared morphemic adversary” (p. 121). In actual fact, the realizational model resembles the good old-fashioned IP model in that its *rules of exponence* are like interpretive counterparts of the processes. For instance, most English plural nouns are of the form *Xs* (linked with the features ‘Noun’ and ‘Plural’) if the corresponding singular form is *X*. Word forms can be seen as well-formed representations of specified sets of features (p. 161). Some of the realization models also make use of a different type of rule, a *rule of referral*, which copies or “takes over” a form from one paradigm cell to another (pp. 126–134). The rules are ordered and arranged into blocks (pp. 123–130, 136–138) according to their specificity and proximity to the stem. In some more complicated cases, the rule ordering may be used, or rather manipulated, to achieve the correct outcome (pp. 139–144).

Implicational models are based on the observation that “one inflection tends to predict another” (repeated from Matthews 1991: 197). In Chapter 7, this observation is combined with two assumptions: 1) variation within a system corresponds to uncertainty, and 2) implicational structure within a system corresponds to a reduction of uncertainty. As variation is further associated with the information-theoretic interpretation of uncertainty as

entropy, the line of reasoning leads to a new kind of view on paradigmatic organization. Uncertainty, identified as a number of variable case endings, can be measured. The entropy of a cell increases as a function of the number of (equiprobable) variants. If the variants are paradigmatically interdependent (measured by conditional entropy), uncertainty is reduced. An average conditional entropy per paradigm cell is typically less than the number of cell variants would suggest (p. 179). Other concepts that can be similarly operationalized include the choice of principal parts (by ranking the paradigm cells in terms of relative informativeness), cohesion (with the help of mutual information), and validity of analogy (pp. 182–183).

Another fundamental question is how versatile inflectional systems can be. Is there an upper limit for the number of inflectional classes, and how is the number of inflectional classes determined in the first place? An earlier attempt to address this question was formulated as the Paradigm Economy Principle (Carstairs 1983). This principle, as well as the analysis in the present book, ignores stem alternation, which may be an ungrounded simplification. Finnish is cited to have up to 82 declensional classes, while the expected number derived from variant case endings is much lower (pp. 189–192). In Finnish, however, stems and suffixes co-vary and cannot be separated from one another at least for any practical purposes. It is possible to construe a classification based on the case endings only, but to my knowledge such a set of declensions has never been proposed for Finnish. (I sketched such a scheme for *Iso suomen kielioppi*, a descriptive grammar of Finnish, but that part was not published in Hakulinen et al. 2004). In any case, the choice of suffix is conditioned phonologically, i.e., suffixes must be compatible with the stems (contrary to what is stated on page 191).

The final chapter explores profounder questions such as the source of morphological patterns, the status of regular and irregular formations, learnability and communicative constraints. Two general hypotheses are proposed: 1) form variation serves a fundamentally discriminative purpose, and 2) the organization of a linguistic system is strongly influenced by its communicative function. For a pattern to be discriminative, it is sufficient that forms are distinguished from each other, they do not need to be formally associated with specific features (this is shown by several case studies, especially one on Georgian verb inflection, pp. 139–146, 165–168, and 211–214). Regular and irregular patterns serve complementary functions in a system (pp. 201–202): regular patterns promote generalizability, irregular patterns enhance discriminability. Viewed this way, irregular forms are not merely historical relics, they have a synchronic

function: they make the contrasts in the inflectional system more salient than regular formations are able to do (compare the present and the past tense forms of *walk*, *walked* and *go*, *went* in this respect). An optimal morphological model is characterized as adaptive, discriminative and usage-based.

I find the ponderings in the final chapter interesting but rather abstract. Subsection 8.5 on *Morphological typology* does not address typological differences per se, focusing instead on the *typological applicability* of unit-based versus relation-based (WP) models. If I understand correctly, a complementary view on units and relations is considered, in which the morphemic and morphomic approaches could be made use of in one and the same general model. This comes as rather a surprise at the end of the volume, which has argued against morphemes throughout its 200+ pages.

My main concern about this book is that it could be more balanced. Morphological phenomena in which meaningful sub-word elements *are* involved are basically disregarded: agglutinative forms and patterns, cliticization and grammaticalization of independent word forms, and affix clipping (e.g. *-ism* > *ism*) would have deserved more attention. Also, the unclear status of representational “formatives” is left almost unaddressed (only briefly mentioned on p. 221).

The best feature of the book is its rather timeless attitude: properties and models of morphological systems are studied from the perspective of two millennia. In this respect, it is a valuable source of material and models of thinking for anyone interested in morphological theory.

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