## Book Review for Morphology

Sharon Inkelas, *The interplay of morphology and phonology*. (Oxford Surveys in Syntax and Morphology, 8) Oxford: Oxford University Press, 2014, xix + 422 pages, ISBN 978-0-19-928048-3 (pbk).

## Geert Booij

The author of this book has worked on the topic of the interplay of morphology and phonology since the beginning of her linguistic career. She has also taught this topic for many years in various forms, and it is therefore great that she has managed to finish a monograph on this topic, which, in line with the aims of the book series in which it has been published, presents a thorough survey of the various types of interplay between morphology and phonology found in natural languages, and of the theoretical proposals and debates on how to analyze the relevant phenomena. The range of languages studied is impressive, and the book is very rich in data. Through its extensive references and indexes readers of this book are guided towards more detailed studies of the various phenomena discussed. The book does not advocate particular theories, and starts systematically from a range of data, and then discusses the analytical problems that they raise. That is, its goal is "an exposition on and reflection about the many types of interplay between morphology and phonology that should inform contemporary theories" (p. 3). The chapters deal with the following topics: Morphologically conditioned morphology, Process morphology, Prosodic templates, Reduplication, Infixation, Interleaving: The phonological interpretation of morphologically complex words, Morphologically derived environments effects, When phonology interferes with morphology, Nonparallelism between phonological and morphological structure, and Paradigmatic effects. There are three indexes: an index of languages, an index of authors, and an index of subjects.

Chapter 2, 'Morphologically conditioned morphology', deals with the various types of morphological information that phonological patterns may be sensitive to. A well known example of a theory that tries to deal with this fact is Lexical Phonology in its various forms. Inkelas points out which problems this theory faces, and mentions her own Cophonology approach as a possible alternative. In particular, she gives examples of phonological patterns that are characteristic of specific morphological constructions (p. 29ff). "In Cophonology Theory, each individual morphological construction is associated with its own phonological subgrammar or "cophonology" (p. 45). This approach is in line with the theory of Construction Morphology (Booij 2010), because constructions may have holistic properties, on the semantic level, on the phonological level, or on both. A variant of the Cophonology approach is the Indexed Constraint approach in which the ranking of constraints (as used in Optimality Theory) can be different for different sets of words.<sup>2</sup>

The next chapter deals with process morphology, the type of morphology by which words are created through other mechanisms than concatenative morphology, for instance truncation (subtractive morphology), or change of the stress or the tonal pattern of base words. Inkelas argues that in a cophonology approach we can deal with morphologically conditioned morphology and process morphology in the same way (p. 82). Truncation is also dealt with in detail in Alber & Arndt-Lappe (2012). They show that this kind of morphology is far more systematic in nature than often thought. It implies that the grammar needs specifications of paradigmatic relationships between morphological patterns, because the truncated words do not contain their base words, and yet are a compositional function of the semantics of these base words.

Chapter 4 deals with prosodic templates, defined as "phonological shape constraints on morphological constructions" (p. 112). Inkelas asks attention for what she calls 'isolated templaticity',

cases in which a single construction imposes a prosodic shape requirement on its inputs or outputs, and concludes that templaticity is best understood as a special case of morphologically conditioned or process morphology (p. 113).

Chapter 5 deals with the phonological aspects of reduplication. The morphological aspects of reduplication have been discussed in detail in Inkelas & Zoll (2005), and in Inkelas (2012). This chapter sketches the two main approaches to reduplication in present-day linguistics, the 'phonological copying' approach, and the 'morphological doubling' approach (the latter approach is defended in Inkelas & Zoll (2005).

Infixation, the topic of Chapter 6, has received a lot of attention as it is a rather uncommon form of affixation, and raises all sort of questions for morphological theory. Inkelas shows that infixation is not just a matter of moving an affix into the inside of a stem, and requires its own formal analysis.

Chapter 7 deals with a classic topic of phonological theory: the phonological interpretation of morphologically complex words, an issue broached in Chomsky & Halle (1968), and further developed in the theory of Lexical Phonology. One of the questions is which phonological rules or processes apply cyclically, and /or on which strata. Inkelas characterizes the role of morphology in this respect as 'layering': "cophonologies apply to the subconstituents of a words created by the constructions with which they are associated, in the order in which these constructions combine" (p. 200).

Blocking of phonological rules in non-derived environment has been a classical ingredient of cyclic and lexical phonology: phonology only applies in (phonologically or morphologically) derived environments. In Chapter 8, Inkelas presents a survey of relevant phenomena, and concludes that morphological derived environment effects are not a unitary phenomenon.

Chapter 9 discusses cases in which phonology directly interferes with morphology, in that complex words cannot be formed because of phonological output conditions. This is an important phenomenon, as it shows that phonological information and morphological information must be available simultaneously in the computation of complex words, in line with the Parallel Architecture theory of grammar (Jackendoff 2002). Affix ordering may also be subject to phonological conditioning.

Chapter 10 broaches a classic topic in the study of interplay phenomena: the non-parallelism between phonological and morphological structure. Classic examples are that compound constituents in languages such as Dutch and English form prosodic words of their own, and that affixes may be non-cohering, hence forming a prosodic word of their own as well.<sup>3</sup>

The last chapter deals with paradigmatic effects: the phonological interpretation of words may also be determined by other words. A well known example is the phenomenon of paradigmatic correspondence, as seen, for instance, in paradigm uniformity effects. (Note that paradigmatic effects can also be seen in truncation, where the semantic interpretation has to refer to the meaning of paradigmatically related words.).

Chapter 12 lists some important conclusions concerning the interplay of morphology and phonology, In particular, Inkelas points out that this interaction cannot be fully understood and accounted for in a unidirectional approach in which morphology precedes phonology. Again, Inkelas' findings here are in line with the framework of Construction Morphology: "In Construction morphology, the phonological and morphosyntactic properties of a word-building construction are stated in the same construction, such that affixation has simultaneous phonological and morphological consequences" (p. 373).

In conclusion, I consider *The interplay of morphology and phonology* a fine piece of scholarhip, with an impressive array of relevant data from many languages, with an open eye to the

power and limitations of various theories, and some important general conclusions concerning the architecture of grammar.

## Notes

- 1. In 2012, Oxford University Press also published a volume on this topic, Trommer (ed., 2012). The difference between these books is that IMP has a stronger didactic focus, whereas Trommer's book is a collection of articles on a range of topics on this domain, with a stronger accent on the theoretical debates involved.
- 2. The running headline of pages 29-43 contains a mistake: instead of 'construction-specific morphology' we should read 'construction-specific phonology'.
- 3. There is a mistake on p. 326 with respect to Dutch suffixes: non-native suffixes are not of the non-cohering type, but of the cohering type. On p. 327, in example (18f) the word for 'boy' should be spelled as *jongen*, and in (19a) the word for 'blue' should be spelled as *blauw*.

## References

Alber, Birgit and Sabine Arndt-Lappe, 'Templatic and subtractive truncation'. In Trommer (ed.), 289-325.

Booij, Geert (2010). Construction morphology. Oxford: Oxford University Press.

Chomsky, Noam and Morris Hale (1968), *The sound pattern of English*. New York: Harper and Row. Inkelas, Sharon (2012). 'Reduplication'. In Trommer (ed.), 355-378.

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Jackendoff, Ray (2002), Foundations of language. Oxford: Oxford University Press.

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