Tomas Riad: *The Phonology of Swedish*. Oxford: Oxford University Press 2014, 368 pp.

The Oxford University Press series "Phonology of the World's Languages" has become an indispensable source for detailed, high-quality analyses of sound systems of individual languages. Tomas Riad's volume on Swedish is a most welcome addition to the series. In this review, I will first sketch the book's contents, chapter by chapter, and then offer a few more general remarks with some overall evaluation.

The introduction provides a compact but very rich overview of variation in Swedish, which becomes a subplot of the book. Central Swedish, a variety close to the national standard, is taken as a focus and point of reference. This chapter frames a set of issues of language policy and resources on the standard, along with dialects of Swedish and inter-Scandinavian communication, but also Swedish outside of Sweden, from older settlements like the one in southern Ukraine to newer ones in Argentina and the United States. The chapter closes by introducing conventions used in the book. These include the use of • to signal in underlying representations where surface vowels may appear and • to signal where an underlyingly present vowel has been syncopated, respectively.

The second chapter treats vowels, first with a detailed treatment of allophony and then the phonemic system. The vowel system is presented in many tables and graphs, showing featural characterizations, positions in the acoustic space (using Bark rather than just F1xF2), and images of articulation (for lip rounding). Given the detail on both phonetics and phonology, the presentation is remarkably clear in ways that would be ideal pedagogically, e.g. in the complex patterns of /e/ and /ɛ/ before rhotics (24ff.). The featural analysis of vowels would allow an easy and interesting comparison to the approach in Dresher (2009), a work that was gaining traction only when this manuscript must have been nearing completion.

The third chapter covers consonants, organized parallel to the previous chapter. Laryngeal features are treated as privative and, as detailed below, Riad adopts a laryngeal realist position — distinguishing 'voice' from 'aspiration' languages (Iverson & Salmons 1995, others). While quantity in vowels is treated as derivative, he posits long and short consonants in the phonemic inventory, marking the long as moraic. Like Kristoffersen (2000) for Norwegian, Riad analyzes /ŋ/ as a phoneme, rather than deriving it from /ng/, as is often

done for West Germanic languages. This analysis involves making a case for ambisyllabicity, and he mounts a strong one. The facts in North Germanic, ultimately, are not so different from those in German or English, and a simple comparative study could begin from Riad's description and include all of North and West Germanic.

Chapter 4 builds on 2 and 3, treating a wide range of segmental processes, which can be illustrated with retroflexion and 'obsolete segmental rules'. Retroflexion, present in Swedish and Norwegian varieties with an apical main form of /r/, is analyzed in treating 'coalescence', with r + laminal, yielding a single output segment (/barn/ 'child', [ba:n]) and 'spreading', with /s/ or the product of coalescence followed by anterior, laminal coronals (/barn+strumpa/ 'child's sock', [ba:nstrøm:pa]). Riad lays out a variety of key phonological, areal and sociolinguistic complexities involved in retroflexion. The discussion of 'obsolete segmental rules' treats "morphophonemic alternations that are no longer phonologically productive, but which still represent large correspondences in paradigms and lexical relations" (p. 108), thus raising the fundamental issue of the relationship between what needs to be encoded in synchronic grammar vs. what is historical residue. In addition to a short treatment of the pan-Germanic problems of ablaut and umlaut (where Riad restricts consideration to "patterns that seem to still have some phonological life", p. 111), he delves into lenition of velar stops (k, g), from the historical correlation (palatalization to ¢, j before front stressed front vowels). Failure of palatalization, as with [k] in kör 'choir', typically reflects borrowing or affective vocabulary while palatalized forms before back vowels, as with [6] in tjuv 'thief', are taken as evidence that the fricative/approximate forms are phonemes. (A note here on the distribution of j vs. j might have been helpful to those less familiar with such patterns of variation, expanding on the sketch on pp. 59-60.)

The next chapters cover sounds above the segmental level: Chapter 5 covers the prosodic word, while 6 deals with the foot and stress patterns. Following his own recent work, in the minimal prosodic word, stress is obligatory and culminative (the latter a notion which might need some clarification for less experienced readers); in the maximal prosodic word, word accent is obligatory and culminative. The chapter concludes with some comments on the formation of prosodic words in syntax, notably through incorporation.

The seventh chapter treats minimality with regard to free words and roots, showing a preference for branching rhymes. Riad uses this 'optimal' prosodic structure to treat hypocoristics, a discussion that invites comparison to the vast

literature (some cited in the book) on West Germanic hypocoristics. Chapter 8 builds on this, addressing segmental quantity and prosodic weight. The complementarity of vowel and consonant quantity is presented, together with the contrasting moraic status, with V monomoraic and V: bimoraic but C nonmoraic and C: moraic. In this chapter we get the full argument on why Riad posits distinctive consonant quantity (with vowel quantity derived). One central argument is that this analysis yields a "simpler and more consistent grammar with fewer ad hoc assumptions" (p. 165), including that positing consonant quantity allows us to capture vowel lengthening in stressed syllables in a way that distinctive vowel quantity would not. While they are different languages, this analysis invites comparison to treatments of related patterns in Norwegian (Kristoffersen 2000: 42-43, 116-120) and Icelandic and Faroese (Árnason 2011).

In Chapter 9, we have a brief introduction to tonal accents, with attention to North Germanic generally, covering accents 1 and 2, phonological representations and the contours. This sets up Chapters 10 and 11, which treat the prosodic status of morphemes in the lexicon in terms of stress and tone, respectively. Riad sketches first how phonology and morphology interact in stress placement in complex forms and then explores how tone fits into this picture. Riad begins from phonological stress assignment and goes on to argue that morphology "is directly involved in the stress system" (p. 193). Such prosodic specification is already necessary to deal with tone. Riad distinguishes four types of morphemes, prosodically unspecified, tonic, pre- and post-tonic, along with some minor patterns, including a detailed review of the combinatoric possibilities, showing how conflicts arise and are resolved. Phonological history is prominent here too of course, with a discussion of etymology and borrowings. While accent 2 has often been analyzed as a signal of polysyllabicity, Riad treats this as an epiphenomenal consequence of two facts: accent 2 is assigned with (1) posttonic suffixes on stressed roots and (2) forms that have two or more stresses (p. 233). Two of the most engaging in the book, these chapters synthesize some of Riad's most important contributions to Swedish sound patterns.

Chapter 12 provides a brief sketch of intonational patterns, an under-explored area of Swedish sound patterns. Riad makes repeated comparisons to intonation in other Germanic languages and makes various notes on needed work on intonation, e.g. how it aligns with morphosyntax (p. 269) or patterns of variation (pp. 273-274).

The thirteenth chapter deals with syllables and phonotactics, providing again both detailed description (tables of onset and coda clusters, for instance, and where prosodically which vowels can occur) and rich comparison to other Germanic languages.

The fourteenth and final chapter deals with orthography, an issue touched on throughout the book. Swedish spelling is relatively close to phonemic, but the survey of grapheme-to-phoneme and phoneme-to-grapheme correspondences is certainly helpful, especially since it is contextualized in terms of relatively recent sound changes. Interestingly, sister volumes in the series often do not treat the topic in depth despite much more complex relationships between spelling and phonology, like Basbøll (2005) on Danish or Wiese (1996) on German.

Turning now to more general matters, Riad's broad perspective on Swedish phonology is apparent throughout the volume, with regard to the interconnections across various phonological domains, between synchrony and diachrony, or connecting language and society, for instance. The references reflect this contextualization with regard to comparative Germanic and to theoretical phonology and related areas. When I first looked at the table of contents, I worried that the organization would be cumbersome, with issues like tone, weight and prosody showing up time and again. After reading the whole book, it becomes amply clear that these and the other themes just noted all run throughout the book — this volume provides a tightly woven narrative of Swedish sound patterns where particular matters are brought to the fore but kept in context.

I have given a set of examples above where this book provides an easy and obvious starting point for future research. But in fact it is filled with implications for phonologists and other specialists in speech sounds who do not work on Swedish. For instance, Riad gives examples of 'damped' or 'buzzing' realizations of [i:] and [y:] as [i:²] and [y:²] (p. 21, see also p. 29 on the rise of a [β] off-glide after high back vowels, [fi:²n] *fin* 'fine' and [bu: k] *buk* 'book'. A growing literature has illustrated similar patterns of hardening, once regarded as highly exotic (Mortensen 2012), and Riad's discussion suggests that there may be an opportunity to observe the process unfolding in real time.

As noted for chapter 3 above, Riad uses 'monovalent' laryngeal features and adopts 'laryngeal realism'; he reviews arguments for Swedish as a system with overmarking, i.e. as employing both [spread glottis] and [voice] actively. Riad's presentation, as elsewhere, is sober and balanced, but I confess to har-

boring more uncertainty than he seems to about the case for phonological overmarking, given that we find here the spreading of spread glottis, but not of voicing (p. 49). And it is generally common for languages to phonetically enhance featural contrasts (my own variety of Southern U.S. English is surely an 'aspiration' system, but with heavy phonetic voicing by enhancement). In this spirit, rate of speech phenomena might also be phonetic rather than phonological. But this is no criticism of Riad's analysis, instead a call for further work in this area.

One challenge in writing this kind of volume is how much current theory should or can be deployed. Riad draws freely on a wide range of modern phonological thought, but does so in such a light-handed way that a reader might miss it. While some earlier volumes in the series drew directly on Lexical Phonology in particular (Wiese 1996, Kristoffersen 2000), the landscape has shifted and Riad does not do so nearly as directly, and the term does not appear in the index. As noted, 'optimality' is extensively discussed for prosodic structures. Here and elsewhere, he draws on Optimality Theory, but without a single tableau and without committing himself overly to the theory-internal machinery of this or other frameworks. This approach works well and I suspect would appeal to language-specialist students.

Most of the other phonologies of Germanic in the Oxford series have far less to say about phonetics and the relationship between phonetics and phonology; the richness of that aspect of the present volume is welcome. Some of this reflects the amount of recent work that Riad has been able to draw on and a comparison of this book with Kristoffersen's fine 2000 Phonology of Norwegian often highlights how theoretically informed mainstream thinking about speech sounds has evolved over the last 15 years.

Every book has infelicities, but this book has few that I can find. The tone is generally relatively informal and the writing clean and lively. Typographical errors include a mere handful of things like these: a bad line break with g[o:]tisk (p. 34) or "hypocoristics formation" for 'hypocoristic' (p. 152).

As the foregoing should make clear, The Phonology of Swedish stands out even within the strong series in which it was published. It provides the necessary synthesis and state-of-the-art summary, but goes well beyond that. This book represents a major achievement as a serious piece of scholarship, and it is something that anyone working on Germanic languages and phonology has to read, and in addition to those interested in sound patterns more broadly, including phonetics, sound change, sociophonetics and more.

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