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Review

Harry van der Hulst, Rob Goedemans and Ellen van Zanten (eds.) (2010). *A survey of word accentual patterns in the languages of the world*. Berlin & New York: de Gruyter Mouton. Pp. xiv + 882.

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Although recent years have witnessed a vast expansion in the metrical stress theory literature (see Gordon 2011 and Hermans 2011 for recent overviews), the theory has lagged behind in integrating advances in the descriptive database on stress typology. Introducing a novel stress system into the theoretical literature has proven to be an uncertain venture when a reduction in the restrictiveness of the theory is threatened. For example, the binary-plus-clash type of system (Gordon 2002) – entailing a fixed stress at both edges of a word, even in clash contexts – has not been widely embraced in the literature. Hyde (to appear) reanalyses two binary-plus-clash systems, those of Tauya and Gosiute Shoshone, in the interests of maintaining an asymmetrical constraint set featuring a constraint requiring initial stress, but not its right-edge counterpart requiring final stress. Clearly, there are many factors that enter into a researcher's decision to admit a stress system into the corpus of patterns serving as the target of coverage. The reliability of the primary description of a pattern, its typological frequency and its amenability to analysis in terms other than stress (e.g. phonetic rather than phonological effects, phrase-level intonation *vs*. word-level stress) must be weighed against the implications of the pattern for the broader theory.

Although the linguist will always be faced with difficult choices in how to treat individual languages, advances in both the typological breadth and the methodological rigour of stress descriptions promise to ease the decision-making burden imposed on the theoretician. The voluminous tome *A survey of word accentual patterns in the languages of the world* goes a long way to bringing into focus the range of stress systems attested in the world's languages. Replete with descriptions of stress patterns from hundreds of languages, it is more a reference tool than a book that one would read through cover to cover. It originates from the expansive cross-linguistic survey of stress initiated in the early 1990s by Harry van der Hulst, Rob Goedemans and colleagues, and captured in the online StressTyp electronic database.[1] Much of the information from StressTyp also appears in four chapters devoted to stress by Goedemans and van der Hulst in *The world atlas of language structures* (Dryer & Haspelmath 2011). Besides encoding the StressTyp information in a book format, the volume under review boasts a number of properties that will likely enhance its

[1] Available (April 2013) at http://www.unileiden.net/stresstyp.

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contribution to the descriptive typology of stress patterns and ultimately metrical stress theory.

A key feature of the book is its division of the world into ten separate chapters that are in general defined on geographic grounds (Australia, North America, Middle America, South America, Africa, Europe, Asia, Middle East), though two chapters are defined in genetic terms, one of which (Austronesian) is universally accepted and the other of which (Papuan) is a macro-grouping endorsed by only certain scholars (see Ruhlen 1991 for discussion). Each chapter provides a descriptive overview of stress systems found in the area (or genetic grouping) covered by the chapter, with further subdivisions according to genetic affiliation. Most chapters are exhaustive in their coverage of the current state of knowledge of stress patterns in the area encompassed by each chapter. The geographic areas addressed in most chapters are for the most part enormous. One outlier in this regard is the chapter devoted to languages of the Middle East, which is smaller than other chapters and overlaps with other chapters in its coverage. Given the already enormous scope of the chapters on Asia and Africa, one could imagine incorporating the material covered in the chapter on languages of the Middle East in the chapters on Asia and Africa. It seems that the primary motivation for including a separate chapter on languages of the Middle East is to allow a more unified treatment of stress in Arabic, which has played an important role in the development of metrical stress theory, than would otherwise be possible if discussion of different Arabic varieties were scattered throughout other chapters.

This volume has several virtues. Many of the chapters have comprehensive tables summarising all of the patterns discussed in the text. There are also many maps, genetic trees of languages, and charts that provide a sense of the distribution of various patterns within a particular geographic region. This allows for discussion by the author(s) (which is pursued more rigorously in some chapters than others) and musing on the part of the reader about which stress patterns might be particularly prone to borrowing or might naturally develop from other systems. For example, the discussion of Australian stress systems in Rob Goedemans' chapter insightfully explores the hypothesis that penultimate stress developed from the predominant Australian pattern of initial stress when prefixes were introduced and the original stress on the root was reinterpreted as oriented toward the right rather than the left edge of the word. Although attempts of this type to trace the historical development of stress systems are admittedly difficult to prove (or disprove), the organisation of the data in this volume along geographic and genetic lines potentially provides valuable fodder for future efforts to extend comparative and internal reconstruction methods from their more typical segmental scope to stress. Of course, Goedemans had the good fortune of writing a chapter dealing with the relatively homogenous set of Australian languages. Faced with the more daunting task of providing a cohesive overview of the 26 language groupings represented in North America (more if Penutian and Hokan are each conservatively split into several distinct genetic families), Keren Rice manages to synthesise a prodigious amount of material, examining stress from a variety of angles: potential diachronic developments within families, areally governed trends, morphological factors and phonetic manifestations of stress. Another interesting and controversial topic (see Hyman 2006 and van der Hulst 2011 for recent discussions about the taxonomy of stress, pitch accent and tone systems) that is prominent in

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several chapters, e.g. in Ellen van Zanten & Philomena Dol's chapter on Papuan languages, in Harry van der Hulst, Keren Rice & Leo Wetzels' chapter on languages of Middle America and in Laura J. Downing's chapter on African languages, is the relationship between stress and other types of prominence based on tone or positionally governed phonotactic constraints (Smith 2005). The book is rife with examples of languages that challenge standard conceptions about stress. I mention two representative cases here. Leo Wetzels & Sérgio Meira discuss the stress system of the Arawakan language Guajiro, which Álvarez (1994) describes as instantiating the rare phenomenon of left-edge extrametricality (see Buckley 1994 on left-edge extrametricality in Kashaya Pomo). Of particular interest is an asymmetry in the behaviour of glottal stop as a trigger of initial syllable extrametricality as either a coda or the onset of the second syllable, but as a weight-bearing coda in a peninitial syllable following an extrametrical initial syllable. In their chapter on Papuan languages, van Zanten & Dol discuss the Trans-New Guinea language Waffa, described by Stringer & Hotz (1973) as having some words without any stress, a possibility that challenges the widely held view that each stress domain have at least one stress. Van Zanten & Dol respond to this challenge by suggesting that Waffa is perhaps better analysed as a tone than a stress language, on the basis of the distribution of 'stress' and its phonetic realisation as high tone (see Hyman 2006 for diagnostic criteria for stress and tone).

Worthy of further praise are both the introduction by Harry van der Hulst and the conclusion by Rob Goedemans. Van der Hulst's entry contextualises stress and other prosodic properties related to stress and prominence within broader contexts defined on various planes: theoretical, phonetic and taxonomic. Goedemans' chapter quantifies the distribution of stress systems in the StressTyp database along various dimensions, including location of primary stress relative to the periphery, quantity-sensitivity, the presence and location of secondary stress, and directionality of footing. Because the StressTyp database does not control for areal or genetic biases (e.g. it contains a disproportionately large number of Australian and Austronesian languages), Goedemans supplements his survey with a typologically more representative survey of 238 languages, pointing out places where frequency distributions vary noticeably between the two types of databases. Goedemans' chapter reveals a number of interesting asymmetries within and interactions between these parameters, e.g. the bias toward left-edge orientation of stress systems, a bias that is stronger among iambic than trochaic languages. The book concludes with an appendix containing a description of all the stress systems (and representative forms illustrating those systems) in StressTyp, organised according to the geographic and genetic groupings of the chapters.

One criticism of the book, a minor one, is the mismatch between the aggregate set of languages covered in the entire volume and the set of languages appearing in the electronic StressTyp database guiding the overall research programme that the book serves. Many more languages are discussed in the book than appear in StressTyp or the book's appendix; as a consequence, the frequency figures cited in Goedemans' typological overview chapter do not reflect the distributions resulting from collapsing the contents of all the individual chapters. The editors are in the midst of remedying this discrepancy by including in StressTyp as many descriptions from the volume as possible. An indirect

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benefit of this volume will thus be its expansion of the readily accessible and searchable electronic StressTyp database.

My only other reservation about the volume is actually a compliment to the sheer enormity of its empirical scope, and a lament about the limitations of the current state of stress typology. Sifting through the copious descriptions appearing in the volume, the reader accustomed to interpreting primary source data is not only impressed by the diversity of stress systems attested cross-linguistically, but is also left to ponder all the methodological diversity embodied in the stress descriptions underlying the volume. Stress descriptions vary from comprehensive to sketchy, with the majority tending toward the less detailed end of the spectrum in at least one or more characteristics (see de Lacy to appear for discussion about the reliability of the primary source literature on stress). Many sources contain insufficient data to disambiguate between multiple possible analyses of the system. Relatively few are explicit about whether the stress patterns reflect word-level or phrase-level prominence. Many lack information about diagnostics for stress. Still fewer present acoustic evidence in support of the stress patterns. Although recent years have witnessed a strong trend toward increased rigour in stress accounts, most typological overviews of stress, including those in the volume under review, are largely based on descriptions that are incomplete in some way. Rice admits these limitations in her chapter (p. 158):

> the data are as trustworthy as the information in the sources. Sources are sometimes difficult to interpret, they do not always contain the full range of data required to make statements about the languages, not all sources agree on the descriptive facts of a language, and the analyses on which the classification is based may themselves be controversial. The latter is often hinted at in the remarks field of StressTyp.

Despite these caveats about the data, *A survey of word accentual patterns in the languages of the world* is still a truly remarkable volume, destined to remain the definitive repository of cross-linguistic stress descriptions for decades to come.

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