

# *Introduction: between stress and tone\**

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In any study of empirical phenomena, the unusual holds particular attraction. The Bird of Paradise with its amazing feathers, the monolithic baobabs and the joint nursing of emperor penguins are phenomena that catch the imagination of the specialist and the interested lay person alike. The scientific study of ‘outliers’ holds particular promise, often revealing a system’s complexity that is not evident when studying simpler phenomena.

The same holds in the study of word-level prosody. Some languages, like Thai and Vietnamese, are tone languages; others, like English, have a lexical stress system. What other typological patterns are there, are combinations of tone and stress possible and what can the study of the unusual phenomena tell us about the nature of speech prosody? More fundamentally, what are the principles underlying a typology of (word-) prosodic systems? These are a few of the questions focused on within the field of word-prosodic typology.

There are two driving forces behind the development of prosodic typology as a field of research, and both are present in the set of papers offered here. First, and crucially, there are the phenomena themselves. We know more and more about the kinds of systems that are possible in human language, as a result of increasingly sophisticated research, much of which focuses on minority languages. The accumulation of data blindly sets an agenda, as the phenomena challenge us to construct a typological framework and phonological theories that can accommodate them. An ever-richer picture is emerging. This is evident from the comprehensive

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survey presented in **Larry M. Hyman**'s paper. Hyman argues for a fine-grained analysis based on the structural properties of prosodic phenomena. His typology leaves no ambiguity as to the criteria on the basis of which types are distinguished, so that his approach has important advantages over category-based approaches, given the lack of agreement on the meaning of the traditional pigeon-holes of stress, tone and pitch accent. Cross-linguistic tendencies for particular properties to co-occur may then form the basis for distinguishing particular word-prosodic types. Crucially, though, the acceptance or rejection of these types does not undermine the fundamentals of the typological project, as it is founded on more elementary characteristics. The paper by **Carlos Gussenhoven** also deals with the border area between the traditional categories of stress, tone and pitch accent. He documents the prosodic system of Nubi, an Arabic-lexified creole spoken in Uganda. In Gussenhoven's analysis, Nubi has obligatory word-level prominence, marked by a tonal feature rather than by non-F0 correlates. This system challenges Hyman's hypothesis that obligatoriness yields a clean cut between tone languages and stress systems, with only the latter showing obligatory prominence. In another paper presenting new data, **Christina Y. Bethin** draws attention to a prosodic phenomenon in certain East Slavic dialects that has not been dealt with before in the English-language academic literature. These dialects show tonal prominence outside the stressed syllable. In what looks like the mirror-image of the well-known accent-II pattern of Stockholm Swedish, these East Slavic dialects have a tonal feature on the pretonic syllable, rather than on the posttonic syllable.

The second driving force is linguistic theory, in particular the axiom that the sound system of any human language includes a hierarchical structure of headed constituents – syllables, words, phrases, etc. – likely to be reflected in the prosodic system (cf. van der Hulst 2005). This and other theoretical views remind us that we should aim for maximal generalisation with minimal mechanisms and challenge us to postulate as few language-specific processes as possible. Obviously, such theoretical tenets constitute a bias, with the potential to distract the researcher from the correct analysis, should the data ultimately be incompatible with them. The paper by **Mary Pearce** on Kera is of particular interest in this context. Kera is a tone language which has no culminative metrical prominence at the word level. Still, there is evidence of metrical structure below the word level, as the tonal composition of words appears to be constrained by foot structure.

The papers by **David J. Silva** and by **Jan-Olof Svantesson & David House** provide phonological and phonetic studies of tonogenesis, in Korean and Kammu respectively. In each case, an originally consonantal contrast has developed into a tone contrast. The authors of both papers pay particular attention to the implications of this change in terms of its phonological representation. If a VOT contrast is predominantly marked by F0, does that mean it is a prosodic contrast in terms of its phonological analysis?

**Jerold A. Edmondson & John H. Esling** present a model of the range of laryngeal and pharyngeal settings that are involved in voice-quality contrasts. Using laryngoscopic video images, they show that voice qualities that are traditionally attributed to a particular setting of the glottal folds tend to involve a range of constrictions higher up in the throat cavity. This study bears on the involvement of laryngeal and pharyngeal articulations in a range of prosodic phenomena, such as stress prominence (cf. Sluijter *et al.* 1995), register tone (cf. Denning 1989), intonation (cf. Redi & Shattuck-Hufnagel 2001) and systems of vowel harmony or ATR (cf. Fulop *et al.* 1998).

It is obvious, then, that typology is both data-driven and theory-dependent, and that the interaction between these two approaches is essential to its development. These perspectives on prosody were well represented at the conference *Between Stress and Tone* (BeST), held in Leiden in June 2005, which was the starting point of this thematic issue project. Five of the seven papers included in this thematic issue were presented at the conference, and benefited from formal and informal discussion there.

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