

Stress-timed = word-based?

Testing a hypothesis in prosodic typology

[Oral presentation or poster]

In the last decades, the dichotomy of stress- vs. syllable-timed languages has received considerable attention in various sub-disciplines of linguistics. As a reaction to the lack of phonetic evidence for this language classification from isochrony research, various attempts have been made to revise the concepts of stress- and syllable-timing in terms of phonological profiles. In this line of thought, Auer (1993, 2001) presents a prosodic typology in which the phonological properties of the putative prototypes ‘word language’ and ‘syllable language’ are deduced from the dominance of the prosodic domains of the word and the syllable, respectively.

In this paper, we test the prediction concerning the dominance of the prosodic word domain in stress-timed languages on the basis of a typological database on prosodic word domains. In order to do this, we followed classifications given in the literature and coded the 74 languages of our sample as stress-timed vs. not stress-timed (i.e. syllable-timed or mora-timed), leaving out what would be mixed or unclassifiable types. Since there is no operationalized definition of word dominance, we recruited our own coding of word-related phonological domains: for each phonological process, we coded whether or not it applies within a specific morpheme type (stem, suffix, enclitic etc.) and whether or not it applies to a specific boundary between such morpheme types (e.g. across a stem-suffix boundary). As most languages have multiple domains, referenced by various phonological processes (e.g. a stem-suffix domain referenced by some processes, and a stem-suffix-enclitic domain referenced by other processes), we determined the modal (i.e. most frequently referenced) domain for each language and then took the frequency of that domain as our measurement of word dominance - assuming that ‘dominance’ means frequent reference in the phonological system. After removing languages which have no modal domain because their most frequent domains are referenced by exactly the same number of processes, we tested whether word dominance correlates with the distinction between stress-timed vs. other types. Figure 1 shows the results for individual languages and, in the last three panels, for three families for which we have data on many languages.

With the notable exception of Turkish and Austroasiatic languages, there is an apparent trend in favor of the prediction, i.e. stress-timed languages tend to have more phonological processes referencing their most frequent word domains. However, there is no statistical support for this in our data (assuming a 5% rejection level on a permutation-based t-test), regardless of whether the evidence is limited to phonological processes that are strictly general across the lexicon or whether any kind of process is included. However, the fact that Austroasiatic as a whole shows a different profile than Indo-European or Sino-Tibetan suggests that ‘word dominance’ is better predicted by diachronic signatures than by universal correlations. We substantiate this claim by an in-depth survey of Austroasiatic’s family signature on prosodic word domain structure in Mon-Khmer where sound patterns target either the monosyllabic stem or the maximally inflected disyllabic word.

Strength of evidence for words (frequency of most frequent domain)

