

# Prosodic functions as morphemes

Yi Xu  
University College London

Fang Liu  
Stanford University

In this presentation we explore the idea that prosodic functions such as focus, sentence modality and boundary marking are analogous to lexical morphemes. In the lexical aspect of speech, morphemes are the smallest sound units that carry meaning. Here we would like to suggest that prosodic functions are the smallest meaning-carrying units in the prosodic aspect of speech. In support of this conjecture, we will present three lines of evidence.

First, similar to lexical morphemes, prosodic functions consist of multiple phonetic components. For example, focus involves on-focus increase of pitch range, duration, intensity and high-frequency energy as well as post-focus decrease of pitch and intensity. Sentence modality is marked not only by final pitch rises, but also by changes of local pitch targets, at least in the case of English. Boundary marking involves final lengthening, pausing, initial strengthening and possibly boundary tones. These phonetic components are like segmental phonemes that serve to distinguish between morphemes but are meaningless themselves.

Second, like lexical morphemes, prosodic functions have allomorph-like variants whose occurrence is conditioned by factors like location in sentence and interaction with other prosodic morphemes. For example, when focus is sentence-final, post-focus compression is missing; the exact pattern of sentence modality varies depending on factors like location of focus; and the number of boundary markers used varies depending on the strength of the boundary.

Third, similar to lexical morphemes, prosodic functions are language-specific and the specificity has likely historical sources. This is evident in the recent finding that post-focus compression, a critical component of focus in languages like English, German, Korean and Mandarin, is entirely missing in many other languages, including Taiwanese, Cantonese, Yi, Deang, Chichewa and Wolof, and there is a likely historical source of this differential distribution. Likewise, instead of using sentence-final pitch rises to mark interrogation as in most non-African languages, a group of languages in Africa use so-called lax prosody to mark the same function, and these languages are linked to each other genetically and/or geographically.

We will also compare our proposal to other proposals that bear some similarities but will highlight some of the critical differences.