

The relation between syntax and phonetics is indirect:
The case of contrastive focus prosody

Contrastive focus, a property of words or phrases with consequences for the semantics, is given syntactic representation on the grounds that it may affect syntactic movement and may be expressed with segmental or tonal morphemes, depending on the language. In many languages, but not all, there are phonetic reflexes of contrastive focus, including greater protrusion of the pitch of a focused item, greater compression of pitch following a focused item, greater duration of the focused item, more extreme realizations of vowel and consonant segments within a focused item. The question arises whether the syntactic property of contrastive focus (standardly represented as a featural F-marking) is directly realized, or spelled out, in terms of such phonetic properties. Recent proposals do indeed propose a direct relation between contrastive focus and its phonetic expression, most notably between contrastive focus and pitch protrusion and compression (Ishihara 2005, Féry 2008, Flemming 2008). This paper argues that such proposals are not viable as statements about the grammar of contrastive focus. They only restate the attested correlation between contrastive focus and certain phonetic properties and do not characterize the full set, and system, of prosody-related properties of contrastive focus.

It can be argued that, were a grammar to allow for a direct relation between contrastive focus and phonetic interpretation, it should not allow for separate statements about contrastive focus and individual phonetic properties like pitch, such as proposed by the above-named authors, since there is in fact a set of phonetic properties (see above) which tend to be correlated with focus in the various languages where this has been examined (Japanese, Chinese, English, German, Korean and others). Observed intra-speaker and inter-speaker variability in the (degree of) use of properties from this set (Katz and Selkirk 2004, Grice and Bauman 2008, Jun 2008) suggests that these properties are integrated together (Kingston and Diehl 1994) in the expression of a more abstract phonetic category, call it phonetic prominence. A more adequate theory of a direct relation between contrastive focus and phonetics would thus express it as a relation between contrastive focus and this abstract phonetic prominence.

But such a theory would not be adequate as a theory of the full focus-prosody relation in grammar. It has nothing to say about properly phonological aspects of contrastive focus: the effects on phonological phrasing (with consequences for tonal and segmental representation) that have been attested in a variety of languages, the realization of contrastively focused monosyllabic function words in English with unreduced vowels rather than the schwa or syllabic sonorants, the appearance of pitch accents on the stressed syllables of focused words in Germanic and other languages, and the differences in post-focus pitch compression that depend on the given/new status of following elements, as observed in Japanese and English. In this paper it will be argued that phonological (metrical/prosodic) prominence is responsible for the array of phonological effects of contrastive focus. If this is true, this phonological prominence of contrastive focus could be responsible for the phonetic prominence of contrastive focus. And this leads to the hypothesis that the relation between contrastive focus and the phonetics in the grammar is indirect, mediated by the phonological representation of prominence.