The effect of informational and interactive factors on the prosodic prominence of negation

The relationship between prosodic form and meaning is complex. Both semantic/information-structural factors and social/interactive factors impinge on the meaning of prosody. This paper examines pitch prominence on spoken negative elements in order to examine and compare such factors.

Some previous studies have pointed to the importance of 'new' information to the prosodic prominence of negation. O'Shaughnessy and Allen (1983) found that tokens of *not* or *n't* in declarative sentences (henceforth NEG) were 90% pitch prominent in read sentences. Hirschberg (1990) found similar results in a study of radio news. They both attributed this to the information provided by the negation. More recently, Banuazizi (2003), investigating the CALLHOME corpus, distinguishes two types of 'new' information, claiming that NEG providing a polar instantiation to a contextual 'open proposition' (Prince 1986) is *more* likely to be pitch prominent (72%), while NEG expressing 'new' information not related to an open proposition is only 8% prominent. True 'old' NEG elements (where the negative proposition has already been assumed) are 24% prominent.

Several other studies have found that social 'stance' and 'footing' (Goffman 1981) are critical: news broadcasters in English used prominent NEG 78% of the time, but CALLFRIEND conversationalists' NEG were only prominent 33% of the time across all discourse footings--i.e. informative, remedial, and supportive utterances (Goffman 1971). This was attributed to there being a 'preference for agreement' in friendly interaction (Sacks 1992). Thus, in American English, where presidential debates (50-60%) and political programming (64-78%) are adversarial, prominence was almost as common as in the read news, even when NEG tokens did not provide new information. However, in continental French, where adversarial footing is deemed inappropriate for presidential debates, NEG were significantly less likely to be presented prominently, pooling both informative and remedial tokens (38%) (Yaeger-Dror et al. 2003).

This paper uses data from three corpora of spoken American English to determine the relative importance of information, social stance and footing. NEG from political debates are compared to friendly telephone conversations (CALLFRIEND) and to conversations with a pronounced adversarial stance (the U.S. television political discussion program, the McLaughlin Group). What's innovative about this study is that friendly vs. adversarial conversations are compared both to each other and to adversarial debates, and a refined information-structure analysis is applied to all three corpora.

We find that social stance and footing influence a speaker's prosodic choices significantly more than information status. The analysis provides evidence that while linguistic choices are theoretically shaped by the cognitive needs of the hearer, social interactive 'rules' can predominate over cognitive 'needs'. It also compares two measures of prosodic variation: a classic ToBI analysis (Beckman, et al. 2005) typically used in information-based studies of American English and a more nuanced measurement protocol used in sociolinguistic studies. We suggest that ToBI parameters need to be supplemented with prosodic categories detected in the sociolinguistic studies in order to capture the full range of prosodic patterns found in corpora of natural speech.