Sentence type or turn position? What determines final intonational contours
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It is commonly assumed that final intonational contours are determined by sentence type, that is, questions are thought to rise at the end, while statements fall (Pierrehumbert and Hirschberg 1991, Beckman and Ayers Elam 1993, Beckman and Hirschberg 1994, Rogers 2000, Vaissiere 2005, Xu and Xu 2005). Despite the prevalence of this assumption, there is no empirical evidence that sentence type is more important in determining phrase-final intonation than pragmatic discourse factors. Turn holding and topic introduction influence intonation significantly (Streeter 1978, Swerts and Collier 1992, Geluykens and Swerts 1994). Yet, the belief that sentence type determines final contours persists. I claim that intonational rises and falls are used more for turn holding than to indicate sentence type.

To examine which is the primary factor behind contour selection, I perform a shape-picture task (Queen 2001) where ten pairs of participants describe simple pictures to one another. This task is selected because it elicits spontaneous speech where speakers may interrupt one another, varying turn lengths, change topics, and produce both declarative statements and yes-no questions. Many intonational studies use read speech (for example Prieto and Hirschberg 1995, Grabe et al 2000), which is inappropriate for examining pragmatic factors such as turn holding. Spontaneous speech is essential because scripted speech, in addition to introducing much artificiality (Cruttenden 1986), limits the types of functions that intonation may be performing. In particular, in a read dialogue, there is no need to hold a turn using intonation because turn length is dictated by the script (Ito and Speer 2006). To examine how intonation can indicate turn holding, it is necessary to study spontaneous speech that may be interrupted, as is done in my experiment.

My preliminary findings support my hypothesis that final intonational contours are determined more by turn holding than sentence type. If subsequent findings are in line with these initial results, it could i) change how final intonational contours are defined, ii) indicate what type of information must be encoded in an intonational model, and iii) argue strongly against the use of scripted speech in intonational research. These findings would challenge the commonly used definitions of final intonational contours in terms of sentence type, such as those in ToBI (Beckman and Ayers Elam 1993, Beckman and Hirschberg 1994). Further, it would argue for intonational models that encode turn holding, opposed to those which do not consider this type of pragmatic information (e.g. Fujisaki 1991, Martin 1987). Finally, it would urge researchers to use spontaneous speech, where turn holding contributes to intonation.

References
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