Size-constraints on intonation groups in speech: Evidence of an independent syllable-count principle.

Abstract

This poster examines size-limits on intonation (F0) contours in spontaneous speech and presents the results of an experiment on a syllable-count principle, which is seen to constitute, irrespective of syntax, a factor restricting the length of F0 groups. Studies of various languages indicate a general tendency to restrict stress-groups in speech to four syllables or less. In languages were stress is not lexically coded (e.g., French), syntax is not a sufficient predictor of stress. The object was to determine whether these aspects of stress patterning also apply to tonal groups. Statistics are lacking with respect to the extent of F0 contours in speech. Pitch-extracting software was used to analyze the speech of 15 native speakers of French (20 minutes each). Initial results suggest an eight-syllable limit on tonal groups. Based on these statistics an experiment was conducted where 40 Ss read and repeated visually presented sentences containing major syntactic divisions (phrase boundaries) at different locations. There are two central findings: (1) phrase boundaries placed at different points in the sentence did not serve to predict tonal grouping; (2) even when the sentence structure offered the possibility of creating large tonal groups, Ss did not create contours exceeding an eight-syllable limit.