

Title: Manipulating prosody: speech-acoustic responses to vocal feedback perturbations prior to phrasal prominence

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Abstract: Prosody, the use of acoustic features to convey linguistic and affective meaning through intonation and phrasing, has been viewed as both a set of discrete events and as a continuous, composite unit of targets and transitions. The latter is the approach by the Autosegmental-Metrical (AM) theory in which prosody is planned at the phrase-level in order to achieve specific intonation targets. According to the DIVA model, prosody utilizes an integrated feedforward and feedback control system. However, the level at which the planning of intonation units are stored as motor plans is not known. In this study, we tested the AM theory of prosody by perturbing pitch during an early transitional word in an intonation phrase to measure how syllables of phrasal prominence are affected. In preliminary analysis, speakers compensated for the perturbation but still produced the targeted low tone in the intonation contour using relative pitch levels. Additionally, speakers exaggerated intensity on the prominent syllable in order to fully achieve the intonation target following the disruption. These results support phrase-level planning of intonation according to the AM theory. However, continued analyses of other acoustic features and additional speakers will help us understand the significance of these findings.