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Prosodic Variation: Understanding Scope, Categoricity, and
Recursion in Speech Production and Perception

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Prosodic structure refers to the level of linguistic structure above the segmental level, namely prominence and phrasal organization. We will examine both articulatory and perceptual characteristics of phrasal organization, and their interrelation. An experiment using articulatory movement tracking examines how far in time remotely from a boundary the effect of the boundary extends. In a second experiment (Krivokapic 2007), we examine how structural properties of a range of prosodic boundaries are reflected in perception—specifically, whether boundary perception is categorical or gradient. A third study considers whether prosodic junctures of the same category type (e.g. an intonational phrase boundary) can, when embedded, give rise in articulation to boundary signatures of measurably different strengths. That is, we evaluate the possibility of recursive prosodic structures of the kind that Ladd (1996) postulates. Taken together, these experiments inform us about structurally induced variability. They provide the opportunity to evaluate standard assumptions about prosodic structure such as the question of boundaries as symbolic or temporal events, categoricity, and strict layering. Throughout, we will consider how the pi-gesture framework (Byrd & Saltzman 2003) offers theoretical insight regarding issues of prosodic representation and realization. [Supported by NIH]