

Adaptative and non-adaptive phonetic variation:
What variation in speaking styles can tell us about information encoding and
communicative efficiency

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Two independent lines of research have revealed a somewhat surprising phonetic convergence between two speaking styles that diverge substantially in terms of their communicative efficiency profiles, namely clear speech and second-language (L2) speech. Specifically, relative to conversational L1 speech, both clear speech and L2 speech typically exhibit slower speaking rates (fewer syllables per second), longer and more frequent inter-word pauses, and less segment- and syllable-level reduction. These phonetic features result in a general pattern of lower information density (more phonetic material produced for a given linguistic message or text) compounded by longer utterance durations to yield substantially lower information transmission rates for both clear speech and L2 speech relative to conversational L1 speech. However, clear speech and L2 speech diverge in terms of intelligibility. While clear speech is a highly effective strategy for enhancing overall intelligibility, L2 speech is typically characterized by greater likelihood of listener errors in word recognition accuracy. This pattern of convergent phonetics and divergent intelligibility highlights the complicated relationship between phonetic form and communicative efficiency. While clear speech is a listener-oriented talker adaptation to listener limitations, L2 speech reflects talker-oriented talker-listener misalignment. The phonetic similarities between these adaptative (clear speech) and non-adaptive (L2 speech) sources of variation underscore the dynamics of human speech communication with the talker-listener relation as the fulcrum. In this talk, I will use this convergent-divergent relationship between clear speech and L2 speech as a wedge into a broader understanding of phonetic variation in relation to both listener-oriented talker adaptation and talker-oriented listener adaptation.