

Deriving Exceptional Phonological Patterns from Contrastive Gestural Strength
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Many phonological processes exhibit patterns of exceptionality in terms of which segments act as triggers or targets. In some Barrow Inupiaq stems, high front vowels trigger palatalization of following coronal consonants, but resist a process of retraction triggered by dorsal consonants. In other stems, high front vowels do not trigger coronal palatalization, but do undergo dorsal assimilation. We propose that the patterns of apparent exceptionality in Barrow Inupiaq are the result of its inventory containing two distinct high front vowels that differ in the strengths with which they command vocal tract articulators. We make the novel claim that this strength parameter may serve a contrastive function in some languages, serving as the source of patterns of apparent exceptionality. This is implemented by assuming that segments are made up of one or more dynamically-defined gestures. This analysis provides a unified, non-opaque account of these patterns that avoids the unwanted predictions of an account based on mechanisms of grammatical exceptionality.