Vowel contours in ABC+Q: the role of *q*

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The participation of diphthongs in vowel harmony and disharmony parallels that of contour consonants (e.g., [^{n}d] or [t^{s}]) and contour tones (e.g., H͡L) in many respects: diphthongs act like units in some processes, but like sequences of independent elements in others.

This paper applies ABC+Q to the analysis of diphthongs. ABC+Q is the marriage of Agreement by Correspondence (Hansson 2001, Rose & Walker 2004) and Q theory, the proposal by Inkelas & Shih (2013a,b) and Shih & Inkelas (2014) that subdivides each vowel and consonant into three temporally quantized *q* subsegments. The *q* subsegments correlate roughly with phonetic landmarks: q^1 is the transition into the target of a constriction q^2, and q^3 is the transition away from the target (cf. Gafos 2002:271).

(1) Q(q^1 q^2 q^3), where Q varies over V, C and each 'q' is a uniform feature bundle

(2) [a]: V(a a a)
[ai]: V(a a i)
[ia]: V(i a a)

The novel contribution of ABC+Q is that correspondence among similar entities can be stated either at the *Q* segment level (CORR-QQ, IDENT-QQ) or at the *q* subsegment level (CORR-qq, IDENT-qq). Similarity can be defined as featural (e.g., [high]) or structural (e.g., target q^2). This talk focuses on the ability of *q*-level correspondence to capture the behavior of diphthongs in harmony and disharmony patterns. We focus on two areas: the common 'invisibility' of the margins of diphthongs to vowel harmony patterns, and the creation of diphthongs as the result of vowel-consonant correspondences across segment boundaries. By drawing on featural and structural similarity, which is a design feature of ABC, and the segment-internal decomposability provided by Q theory, we are able to offer a unified account of diphthong behavior that highlights their parallels with other contour segments as well as tonal contours.