

Vowel shifts in Slavic. An evolutionary account based on feature mislocalization

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The evolutionary model (Ohala 1981, Blevins 2004) rests on the assumption that the explanations of linguistic patterns are historical. Sound change is essentially phonetically-based and introduced by the listener. It may result from structural reinterpretation of an ambiguous acoustic signal. A feature with elongated phonetic cues is difficult to localize and its source may be reinterpreted. When such a “stretched-out” feature, [F], is realized on a string of adjacent segments, [C^FV^FC^F], several phonological analyses are available to the listener. For example, on the assumption that the source of the feature is monosegmental, three analyses of the string are possible: /C^FVC/, /CV^FC/ and /CVC^F/. Positing a multisegmental source might yield /C^FV^FC/, /CV^FC^F/, /C^FVC^F/ or /C^FV^FC^F/. In the event that the structural representation of the listener differs from that of the speaker, a sound change has occurred. Features with elongated phonetic cues include palatalization and rounding. Sound change is unpredictable and ignorant of structural optimization.

Three processes from Slavic are given an evolutionary explanation: (a) Lechitic Vowel Shift, a change that occurred in Polish and other Lechitic dialects in the 9th and 10th centuries, (b) vowel unrounding in Kashubian, and (c) vowel unrounding in Ukrainian.

- (1) (a) *kvætŭ > kʲat ‘flower’
*zelo > zɔwɔ ‘herb’
(b) mɔva > mwɛva ‘speech’
ɔftsa > wɛftsa ‘sheep’
(c) vɔlŭ > vil ‘bullock’
radostĭ > radistʲ ‘happiness’

The evolutionary account of these three processes appeals to the structural reinterpretation of an ambiguous signal and to the phonologization of coarticulatory interactions. The listener misanalyzes the source of palatalization / rounding and posits the feature in a non-historical position. The phonological [palatalized] / [round] contrast is reanalyzed as being an inherent property of consonants rather than of vowels. The presence of the feature on the adjacent vowel is interpreted as coarticulatory and mentally factored out from the phonological representation. In the three processes in (1), a structural reanalysis has given rise to a sound change.

In contemporary Polish and Ukrainian the sound changes in (1) are reflected in dynamic alternations in the grammar (e.g. Pol. *kwiat* [kʲat] vs. *kwiecie* [kʲɛtɕɛ] loc.sg., Ukr. *vil* [vil] vs. *voly* [vɔli] nom.pl.). The Polish alternations have been approached from the synchronic generative perspective (Gussmann 1980). The shortcomings of the generative account are identified: (i) the underpinnings of the processes are left unexplained, (ii) non-alternating forms cannot be dealt with without ad-hoc stipulations, and (iii) analogical levelling based on the frequency of use is not easily incorporated. The proposed evolutionary account easily overcomes these problems because (i) it is based on empirical phonetic studies, (ii) a historical change need not be synchronically productive, and (iii) when a sound change becomes obsolete its remnants are commonly subject to analogical levelling.

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