Do words or phonemes change? Evidence from lenition processes in progress

A fundamental and still unsettled debate in diachronic phonology is whether sound change affects phonemes in specific phonetic environments, without regard to lexical identity or, instead, it affects words, so that different words will undergo sound changes at different speeds. Within exemplar models, Pierrehumbert (2002) and Bybee (2003), among others, have claimed that sound change always operates on words and that more frequent words will change more rapidly than less frequent ones. The possibility (or necessity) of "word-specific phonetics" would appear to follow from the architecture of exemplar models of lexical encoding. Different words will be used in different contexts and with different frequencies and their reduction patterns will be part of their mental representation.

A different view has been expressed by Labov (1981, 1994, 2006, 2007), who has argued that the various vowel shifts currently taking place in North American English dialects are affecting all instances of the respective phoneme in the same manner and simultaneously, regardless of whether the words containing them are frequent or infrequent (the Neogrammarian hypothesis).

Something that makes evidence from vowel shifts not obviously applicable to other sound changes, such as lenitions and assimilations (which are the most common types of changes), is that they appear to have the opposite directionality. Labov remarks that vowels with primary stress tend to show more advanced realizations than those with secondary stress and that vowels under emphatic stress are particularly advanced along the path of the shift. That is, vowel shifts would appear to be led by tokens in the prosodically most prominent positions. This is no doubt related to the fact that these are changes affecting only lexically stressed vowels. In lenitive processes, on the other hand, new pronunciations arise in the the pragmatically and prosodically weakest contexts.

We consider a comnon lenition process, the weakening of intervocalic stops, focusing on the Romance languages. If sound change affects words, we would expect that word-internal intervocalic stops would change more rapidly than word-initial ones, which will not always be intervocalic in the phrase. If, on the other hand, sound change affects phonemes in certain phonetic environments, the presence of word-boundaries should be irrelevant. A number of historical processes in Romance would appear to support the first hypothesis. Thus, all Romance languages have merged Latin intervocalic B and V, when word-internal, but not word initially (Lat. HABĒRE > It. *avere*, but Lat. ILLA BUCCA > It. *la bocca*). We find the same restriction to the intervocalic context in the later identical change in Judeo-Spanish. Regarding voiced stops, these weaken again to voiced in word-internal intervocalic position in Western Romance (LUPU > OSp *lobo*), but word-initial voiceless stops remain unshifted, even if preceded by a vowel. In cases where there has not been phonological recategorization, on the other hand, intervocalic lenition affects both word-internal and word-initial segments. Examples are Spanish and Catalan spirantization of /bdg/ and the voicing of /ptk/ in central and southern Italian varieties, and in a more incipient manner also in Spanish and Catalan. In this paper, going beyond impressionistic transcription, we present quantified lenition indexes of intervocalic /ptk/ and /bdg/ in Spanish, Catalan and Italian corpora. Our results support the Neogrammarian hypothesis for the initial stages of phonetic weakening. We argue that word effects are a later result of phonological recategorization.