An Experimental Approach to Ambisyllabicity in English

The idea that a consonant can belong to two syllables at the same time was suggested in the early 20th century. On the one hand, the idea that a consonant may belong to two syllables at the same time has been hailed as a formal device that helps account for a number of allophonic variations in English such as flapping. On the other hand, the very existence of the phenomenon has been flatly denied. Rather than explore ambisyllabicity as a universal linguistic process, we limit ourselves to testing its role in the English language where a good deal of the literature on the topic has been focused.

The question we address in the present paper concerns what factors condition a consonant or consonant cluster to belong to two syllables at the same time. The experimental literature on the subject suggests a number of conditioning factors for ambisyllabicity which we tested by asking subjects to choose the first and last part of 581 bisyllabic words. For example, the /b/ in habit was considered ambisyllabic when a participant chose hab as the first part of the word and bit as the second. Using logistic regression were were able to determine what factors contribute to the ambisyllabicity of a consonant or consonant cluster, as well as to measure how influential each factor is.

We found that geminate spelling interacts with social variables; older participants and more educated speakers provided more ambisyllabic responses. The influence of word-level phonotactics on syllabification was also evident. A consonant such as the medial /d/ in standard is attested as the second consonant in the coda of many English words (e.g. lard), as well as in the single-consonant onset of many others (e.g. dirt). For this reason such consonants were often made ambisyllabic. This contrasts with the /n/ in standard, which is never the first consonant in a word-initial cluster (e.g. *ndorf) and therefore, rarely made ambisyllabic in the experiment. Consistent with previous studies, ambisyllabicity was also found more often when the vowel preceding the single medial-consonant was lax, or stressed, or when the medial-consonant was a sonorant rather than an obstruent. The idea that a stressed lax vowel in the first syllable conditions both the ambisyllabicity of the consonant and its geminate spelling is not supported.