ACOUSTICS2008/1693 Neighbors as competitors: Phonological analysis of spoken word recognition errors

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Theories of speech perception and spoken word recognition widely assume that phonetically similar words compete for selection during lexical access. These competitors - called lexical neighbors - are classically defined as differing by a single segment, with little attention paid to other levels of phonological structure such as featural content or syllabic structure. This paper reports on analyses of over 15,000 word recognition errors made on a representative sample of the lexicon (N=1428) that includes the same variety of syllable structures, lengths, and lexical frequencies that exists in the English lexicon. The analyses reveal that competitors share segmental information as has been previously suggested, but that the classic definition of neighbor cannot capture the level at which featural and syllabic properties of the target constrain the error responses. We will discuss several analyses on these issues and discuss the implications for our understanding of the organization of the lexicon. [Work supported by NIH-NIDCD R01 00111 and T32 00012]