

# Did you say "gross snails" or "gross nails?" The problem of segmenting co-occurrences of the same segment

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**Abstract:** To comprehend spoken language, listeners have to segment words from a continuous stream of speech. This task may be difficult when [s] repeats at a word boundary (e.g., gas station) because the two s's could blend together and form one long s-sound. Do talkers produce cues that signal the word boundary? If not, how do listeners segment the words correctly? We addressed these questions by having talkers produce two-word sequences that could be interpreted in three ways, depending on how the middle s-sound was heard (e.g. grow snails, gross snails and gross nails). Acoustic analyses of their productions examined whether there are cues indicating the presence of a word boundary. Listening experiments using the talkers' productions as stimuli were carried out to determine the extent to which signal-based and knowledge-based cues are used to resolve ambiguities. Implications of the results for models of spoken word recognition will be presented.