

## Effects of language familiarity, utterance length, and speech quality in prosodic boundary identification

[語言熟悉度、話語長度和語音品質對韻律邊界辨識的影響]

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This study investigates the effects of several stimulus sources: language familiarity, utterance length, and speech quality, on listeners' predictions of the sizes of the upcoming prosodic boundaries. Experiments with native Taiwanese speakers were conducted, and the stimuli varied in prosodic boundary units (i.e., word, phrase, and sentence), languages (i.e., Taiwanese, English, and Swedish), utterance lengths (i.e., 2-second, and 2 syllables; the latter is approximately 0.416-second long), and speech qualities (i.e., normal speech, low-pass filtered speech). Results showed that: (a) listeners performed better when the utterances were longer; (b) listeners performed better in low-pass filtered speech when they had no prior knowledge of the target language; (c) there was a tendency for the language familiarity effect, but this effect was heavily influenced by the extent of similarity of the phonetic realizations in different prosodic boundaries, and the listeners' language proficiency which was associated with working memory storage capacity.

**Keywords:** prosodic boundary identification, language familiarity, utterance length, low-pass filtered speech

**關鍵詞：**韻律邊界辨識，語言熟悉度，話語長度，低通語音

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