

## Abstract

Four experiments were conducted to examine the role of context effects, tonal information, and other lexical variables in the processing of ambiguous words in Chinese during continuous speech. In Experiments 1, 3, and 4, listeners were presented with successively gated portions of a spoken homophone, embedded in a sentence context, and they identified the homophone on the basis of its increasing amount of acoustic information. In Experiment 2, listeners named aloud the visual probe at a pre-designated point upon hearing the sentence which ended with a spoken homophone. Results indicate that first, context has an early effect on the disambiguation of various homophone meanings, shortly after the acoustic onset of the word. Second, context interacts with frequency of the individual meanings of a homophone during lexical access. Furthermore, the results show that Chinese listeners use tonal information to disambiguate homophone meanings, provided that a sufficient amount of acoustic information becomes available. However, the role of tone is limited relative to the role of sentential context during sentence processing. Taken together, convergent results from this study support the context-dependency hypothesis, which states that to select the correct lexical meaning of an ambiguous word depends on the simultaneous interaction among both top-down and bottom-up information processing during lexical access. Finally, the results suggest that the interactive activation models of lexical processing are the best account for the problem of lexical ambiguity.