Listening to Non-native Speech in Noise: Role of Predictability

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Listening to speech in a noisy or reverberant environment is difficult for everyone, but it is undoubtedly more challenging for non-native listeners to accurately perceive foreign sounds even if listening to them in a quiet listening environment is unproblematic. Many studies involving non-native speech perception in adverse listening conditions have focused on the perception of either consonants and/or vowels, in non-word context (e.g. /aCa/ where C represents target consonant).

How learners perceive real words in adverse listening conditions remains unclear. In real-life face-to-face conversations, we are often exposed to not only visual but auditory information such as the conversation partner's lips and gestures, which work as "hints" to aid comprehension. Contextual information is also another form of "hint" as to what the conversation partner is saying; for example, one will most likely think the last word of the sentence "I'm hungry, let's go eat XXXXX." is *lunch* rather than, for instance, *computer*. This is because context rules out certain words and narrows down what can actually fit into it to make a logical, comprehensible, and meaningful sentence. How learners use (or cannot use) context in noisy environment has been less extensively researched.

The present study reports the results of a perceptual experiment in which intermediate-level learners of English listened to predictable and non-predictable words in sentence context in noisy and quiet listening environments. Results showed significant differences between accurate perception of predictable words in quiet and noisy conditions, as well as predictable and unpredictable words in quiet and noisy conditions.