Native and Non-native Listeners' Use of Information in parsing Ambiguous Casual Speech: 'He was like' or 'He's like'?

Humans convey information very efficiently when talking casually with each other, relying on the listener's ability to combine various levels of information to retrieve at least enough of the speaker's intended message. Part of this efficiency includes "reduced speech," in which sounds, syllables, and whole words can be shrunken or omitted. Reduction can create ambiguity, as in tokens of "we were" that sound like "were," or tokens of "he was" that sound like "he's," "his," or "is." (Examples of reductions at http://www.u.arizona.edu/~nwarner/reduction_examples.html.)

When listeners parse such ambiguous reductions, several kinds of information may be available: they may use syntactic or semantic information from the rest of the sentence (e.g. indicators of expected tense), they may use speech rate to determine how much reduction to expect, and they may use perceptual cues in the reduced acoustics of the words themselves. However, if listeners are not native speakers of the language, they may use this information differently, or fail to use some types of information, even if they are quite proficient in the language.

This talk gives results of a series of experiments on perception of spontaneous conversation, where the words marking present vs. past tense are often reduced (e.g. "Cuz he already told Steve he was in the wedding"). Varying amounts of context were presented in order to investigate listeners' weighting of information. We find that native listeners do extract information from the sentential context (syntax or meaning), but that for some types of ambiguities they primarily use speech rate information to reconstruct what was said. Furthermore when the target words are followed by quotative "like" (e.g. "And she's like 'yay, I'm so excited for you!'"), this forms an extremely high-frequency phrase that usually describes a past event. Listeners' weighting of information before quotative "like" is different from other environments, revealing reliance on meaning information if acoustic cues are not presented, but very strong reliance on acoustic cues, no matter how reduced and misleading, if they are presented. This suggests that cues to meaning or syntax in the rest of the sentence are not native listeners' primary method of parsing reduced speech.

We also conducted this experiment with non-native English listeners in the Netherlands. The most striking difference was that the non-native listeners, even though they are rather proficient in English, appear to be unable to use fast speech as a cue to know that they should reconstruct a longer, reduced form.