"Expectation adaptation in pragmatic processing: How listeners infer speaker intentions from the variable acoustic signal"

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Expectation adaptation in pragmatic processing: How listeners infer speaker intentions from the variable acoustic signal * One of the most difficult problems in comprehending language is its variability. Talkers differ in kinds of intentions they wish to convey as well as in how they linguistically encode them with various phonetic, phonological, lexical, and syntactic devices. To/comprehend/ the speaker's intention, listeners must therefore navigate this variability. We investigate whether listeners adapt their pragmatic inferences in response to recent exposure and, if so, whether such adaptation is rapidly integrated with online pragmatic processing. To this end, we examine 1) interpretations of contrastive focus, which can signal that pragmatic inference is required to determine speaker meaning (e.g., Ito & Speer, 2008; Pierrehumbert & Hirschberg, 1990; Watson et al., 2008) and 2) referential resolution based on scalar adjectives (e.g., "Pick up the/tall/glass", Sedivy et al., 1999). In this talk, I first present results of an off-line judgement experiment using a paradigm developed to investigate implicit learning in phoneme categorization (e.g., Kraljic, Samuel & Brennan, 2008; Norris, McQueen & Cutler, 2003). The results suggest that listeners rapidly adapt their pragmatic interpretation of contrastive focus to best reflect speaker-specific realizations of prosodic cues (e.g., pitch and segment duration). I then discuss results from two eye-tracking experiments, suggesting that changes in the reliability of prosodic cues (estimated based on recent exposure) are reflected in changes in processing time-course. When a contrastive focus is deemed unreliable as a cue to a contrastive interpretation, listeners effectively down-weight it in their comprehension of following utterances. I then discuss contrastive inferences based on scalar adjectives and how listeners may infer and generalize "informativity" of a given speaker across multiple linguistic consructions. I conclude that such rapid and efficient recalibration of expectations enables listeners to achieve robust pragmatic communication despite the variability in the linguistic signal.