



HUMANITY  
CENTERED  
ROBOTICS  
INITIATIVE



BROWN

**Amanda Pogue**  
**University of Rochester**

**“A Reflection on Referential Expectation  
Generation and Resolution  
in Communicative Tasks”**



**Friday, May 12, 2017**  
**2-3pm**  
**CIT 477**

*Abstract:* In the last 20 years of research in experimental psycholinguistics we have learned a lot about how people refer to things in the world, and how as communicators we use this knowledge to make predictions about the kinds of things people might say. Much of this work has used natural tasks in domains that are not unlike some that are used in developing research with interactive robots. I will discuss some representative results that show that human communicators make use of a rich set of information when circumscribing referential domains, including task-based goals and task-relevant constraints (cf. Hanna & Tanenhaus, 2004; Chambers et al., 2002; Sedivy et al., 1999; Arnold, Hudson Kam, & Tanenhaus, 2007), and when interacting in collaborative tasks (cf. Brown-Schmidt, Gunlogson, & Tanenhaus, 2008; Brown-Schmidt & Tanenhaus, 2008; Clark & Krych, 2004; Clark & Wilkes-Gibbs, 1986) in order to generate expectations and ultimately understand the referential expressions made by others. I will also discuss how we can use simple tasks to investigate people’s expectations, test how people generalize from minimal data, and study the trade-off between people’s expectations and their beliefs about the reliability of the evidence they are encountering in their input in this generalization process. Through this discussion I aim to bridge some of the work in the field of psycholinguistics with some of the questions being asked in interactive robotics research.

**Amanda Pogue** is a 4th year graduate student in the Brain and Cognitive Science department at the University of Rochester. She is advised by Michael K. Tanenhaus, Chigusa Kurumada, and T. Florian Jaeger, and her research focuses on how listeners are able to tune their pragmatic (communicative) expectations over time, and more specifically the role of integrating information about particular speakers into this process. In order to investigate this topic she has focused on the cues from context and the linguistic signal that listeners can use to adapt their expectations and generalize them to unseen data. She has studied these topics using large-scale web-based studies, and real-time (eye-tracking) sentence comprehension experiments with both child and adult populations. Prior to attending the University of Rochester Amanda’s work focused on the role of context in the interpretation of quantifiers, children’s conceptual understanding of numbers and the argument structure of verbs, and infant’s understanding of the role of language in communication.

Host: Stefanie Tellex/HCRI