Faculty Mentor: Michael Frank

Project Topic: Investigations of language learning and social cognition in infants, children, and adults

Brief Discussion of Scientific Issues: How do we go from speechless infants to fully verbal adults expressing complex ideas and propositions with language? We’re interested in creating a computational theory of how we acquire natural language via modeling and behavioral studies with infants, children, and adults. Our research involves such questions as the effect of prosody on children’s comprehension of implicatures, the development of negation, the evolution of complexity in language, and many others. Using a variety of experimental methods (eye-tracking, iPad studies, computer-based tasks) we investigate the learning mechanisms underlying language acquisition through interactions with the world.

This project will take place in the Language and Cognition lab in the Psychology Department and involve designing and running experiments with children and adults. We will be working with children at Bing Nursery, in our own on-campus lab, and at the Children's Discovery Museum in San Jose. Being part of the lab means joining an active research community with weekly lab meetings and reading groups. Interns will develop their own mentored research project in collaboration with their supervisor.

Skills Required: Familiarity/comfort working with children, basic computer skills (e.g. MS Office), some familiarity with programming languages (e.g. R, Python).

Preferred: Experimental psychology background (Psych 1, Psych 60, etc.)

Skills to be learned: Eye-tracking methods, experimental methods with children, data analysis methods.

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