Mara Breen
(mbreen) Reese 207B

My work is focused on understanding the processes underlying speech production and comprehension. I am particularly interested in how speech processing interacts with attention and memory. My research explores questions like: Do listeners direct more attention to word onsets than to other parts of words? Do accents on words draw listeners' attention to them? I also investigate parallels between the processing of language and music, e.g., does a regular rhythm in speech improve perception and comprehension? Finally, I am interested in the extent to which readers activate a sound representation of words during silent reading. I use a variety of behavioral and neuroscientific methods in my research, including eye-tracking and ERPs. Students who work with me will be involved in all aspects of data collection and analysis. Ideally, they will have taken 200 and 201, as well as 241, but exceptions are possible for students with a keen interest in how people communicate.

Fran Deutsch
(fdeutsch) Reese 209A

How can equality between husbands and wives be achieved? My research focuses on inequality in the division of housework and childcare, and more specifically on the unusual couples who create equality at home. Currently, I am working on a project to collect case studies of equally-sharing couples from around the world. In a second line of research, I am studying the ways preschool teachers (who tend to be from poor backgrounds) are able to pursue a college education. I am on leave in the spring this year, but would be interested in talking to you in the fall. I am email-averse! Come see me during my office hours.

Karen Hollis
(khollis) Reese 209B

My students and I explore the role of learning in the predator-prey relationship between pit-digging larval antlions, insects that capture prey in carefully constructed pit traps, and ants, which often stumble into those traps and thus become antlion prey. The competition between these predators and their prey has resulted, through natural selection, in behavior that aids antlions in capturing ants more efficiently, and aids ants in escaping antlion predation more effectively. For example, we've shown not only that antlions can learn to anticipate the arrival of prey, an enormous predatory advantage, but also that several species of ants, including a local species, are able to rescue nestmates that fall into antlion pits. Ants' rescue behavior is very sophisticated, relying on precisely directed maneuvers. Currently, the AntLyon Team (antlyons, get it?) is studying whether ants are able to learn to avoid antlions' pit traps, either because they fell into a pit themselves, or because they rescued a nestmate from a pit. In another project, we're exploring whether ants get better at rescuing with experience. A student who wishes to work with the MHC Team should have a keen interest in animal behavior, and have taken an introductory course in psychology, neuroscience, or biology.
As a behavioral neuroscientist, I seek to understanding the neurobiological underpinnings of social behavior, including the mechanisms that perturb development. I utilize preclinical animal models to study neurodevelopmental disorders such as Autism Spectrum Disorders. This research focuses on understanding basic neural circuitry underlying social behavior and identifying how environment, genetics, and their interactions contribute to brain and behavior development. Currently, I am exploring the effects of maternal immune activation on offspring social behavior and neurotransmitter function.