

Justine Hoch

Permanent Address:

Contact Information:

Education: Denison University, Class of 2012, magna cum laude
Major: B.S. in Psychology, Concentration: Neuroscience
Minor: Philosophy
GPA: 3.77, Major GPA: 3.94

Research Interests:

- Domain general learning mechanisms
- Infants' understanding of meaningful goals, how goals are used to interpret action
- Active learning and exploration
- Statistical and social cues that guide attention in infant learning

Research Experience:

Lab Manager, UC Berkeley Early Learning Lab: (August 2012 - present) Director: Prof. Fei Xu
Responsibilities include: day-to-day lab supervision, maintenance of both university and state research protocols, data security, participant recruitment, training and supervision of undergraduate research assistants. I am currently collecting data for a variety of research projects with both infants and pre-school aged children using looking-time, eye-tracking and free play methods.

Involvement in current projects:

- Animacy and Agency: This research provides the first evidence that the early bias to link agency to order exists in not only the visual, but also the auditory domain.

Ma, L., Berthiaume, V., **Hoch, J.** & Xu, F. (submitted, *Developmental Science*). Do Infants Infer Intentional Agents from the Perception of Auditory Regularity?
- Violation of Expectation and Exploration: Do infants spend more time exploring objects that behave in unpredictable ways? This research aims to investigate whether increased looking time following an unexpected event translates into increased action and exploration.
- Coincidence and Explanation: Do pre-school aged children entertain alternative explanations when viewing coincidental events? What sorts of alternative hypotheses are considered?
- Probabilistic Reasoning: To what extent are infants sensitive to violations of random sampling?

Project manager, UC Berkeley: (August 2012 – Present) Collaborating with Prof. Stephanie Denison on a follow up to the Repacholi & Gopnik 1997 theory of mind task. This training study aims to examine the developmental shift in preference attribution for 14-18-month-old infants.

Summer RA, UC Berkeley Gopnik Cognitive Development Lab: (Summer 2012) Advisors: Prof. Stephanie Denison, Prof. Alison Gopnik. Conducted research in both lab and museum settings. Collected data for a study examining 4- to 5-year-old children's understanding of probability and aided in the development and experimental design of a preference attribution study (continued as project manager).

Senior Thesis: (Fall 2011– Spring 2012) "The Effects of Language on Event Segmentation". This research examined how the use of language might direct the segmentation of a series of actions into coarser or finer units. Received the Rita Snyder Research award for excellence in statistical analysis and quantitative reasoning.

Lab Member, Denison University Infant and Child Cognition Lab: (Fall 2011-Spring 2012) Advisor: Prof. Rebecca Rosenberg. Met regularly to discuss research related to early numerical cognition and number representation.

Summer RA, Temple University Infant Lab: (Summer 2011) Advisor: Prof. Nora Newcombe. Aided in the creation of a child mental folding assessment for the Spatial Intelligence Learning Center. Additional responsibilities included stimulus design, data collection, coding, recruitment and scheduling. Supported by stipends from Denison and Temple University.

Assisted Faculty Research: (Spring 2010– Spring 2012) Advisor: Prof. Harry Heft. "Identifying Behavior Settings through Dynamic Patterns of Movement" This research investigates how dynamic patterns of movement generated collectively by individuals in a setting can serve as perceptual information about setting type. Findings were presented at the European Workshop on Ecological Psychology (June 2012).

Independent Undergraduate Research: Cognitive Psychology: (Fall 2011) "The Effects of Hand Position on Memory at Encoding and Retrieval," Biological Psychology: (Spring 2010) "Group Housing as a Mediator of Ecological Stress in Female Rats," Environmental Psychology: (Fall 2010) "Framing Effects of Graphic Displays on Environmental Preference."

DURF Summer Scholar: (August 2010– May 2012) Advisor: Prof. Harry Heft. Generated experimental stimuli, edited and produced computer-animated stimuli, managed participant recruitment, experimental design, data collection and analysis. Supported by a grant from the Denison University Undergraduate Research Fund.

Honors and Awards:

Rita Snyder Research Award (Spring 2012)
Sigma Xi Scientific Research Society (Spring 2012)
Earl and Irene Wells Scholarship (2011–2012)
Psychology Senior Fellow (2011– 2012)
Psi Chi Psychology Honorary (2010–present)

Denison University Undergraduate Research Fund
(DURF) Summer Scholar (Summer 2010)
Dean's List (Fall 2009–Spring 2012)
Denison University Founders Scholarship (half tuition, 2008-2012)

Posters and Presentations:

- Ma, L., Berthiaume, V., **Hoch, J.** & Xu, F. (October 2013). Do Infants Infer Intentional Agents from the Perception of Auditory Regularity? *Cognitive Development Society Meeting*, Memphis, TN.
- Heft, H., **Hoch, J.** & Edmonds, T. (June 2012). Situated action and the affordances of places. *European Workshop on Ecological Psychology*, Madrid, Spain. (paper in prep)

Activities and Interests: Neuroscience Education and Research at Denison (N.E.R.D) Member (2008–present) and Events Coordinator (Spring 2011–2012), Tutor for Research Methods in Psychology (Fall 2011 – May 2012)