## Seminar in Cognitive Development

## Laura Schulz, Elizabeth Spelke & Josh Tenenbaum

spring 2015

website: http://stellar.mit.edu/S/course/9/sp15/9.S917/

This seminar, organized in coordination with the Center for Brains, Minds and Machines, will focus on the development of knowledge in the first five years. Drawing on behavioral research on infants and young children, as well as research in cognitive neuroscience, research using controlled rearing methods with animal models, and research developing and testing computational models, we consider both the starting points for human cognitive development and the ways in which early knowledge grows. Topics will be chosen in accord with student interests and likely will include early developing knowledge of objects and their mechanical interactions, of animate beings and their behavior and intentions, of social beings and their communication and relationships, as well as the development of abstract concepts (e.g., causal concepts, mathematical concepts) that apply to all these entities. In addition, we will look at how infants and children learn to represent their own abilities and utilities and how these emerging self-representations support and constrain their learning about the world.

The seminar meets on Wednesday 2:30-5, except for two classes that will meet on Monday 4-6:30. Arrangements will be made for students who have conflicts with the Monday meetings. All attending students must participate actively in the seminar. Classes will alternate between Harvard (room TBA) and MIT (46-3189).

<u>Date</u>	<u>Place</u>	<u>Topic</u>
Wed 1-28	Harvard	organizational meeting
Wed 2-4	MIT	introductions to the content and frameworks guiding the class, led by Laura, Liz and Josh
Mon 2-9	Harvard	TBA
Wed 2-18	Harvard	agents actions & goals: class discussion 2;30-4, then the class will attend Woodward's colloquium.
Wed 2-25	MIT	TBA
Wed 3-4	MIT	TBA
Mon 3-9	Harvard	TBA
Wed 3-18	no class (Harvard spring break)	

Wed 3-25	no class (MIT spring break)		
Wed 4-1	MIT	TBA	
Wed 4-8	Harvard	TBA	
Wed 4-15	Harvard	TBA	
Wed 4-22	MIT	TBA	
Wed 4-29	MIT	TBA	
TBA	TBA	Wrap-up	