

Wednesday 1/8/25

12:00 pm - 1:15 pm

## The Cognitive Science Department

is pleased to announce the following seminar by



Dr. Natalia Vélez

**Princeton University** 

## "Thinking Collaboratively"

**Abstract:** Since the cognitive revolution, psychologists have developed formal theories of cognition by thinking of the mind as a computer. This metaphor, however, is typically applied to individual minds. Humans rarely think in isolation. We are curiously dependent on culturally transmitted skills and knowledge, and we excel at collaborating with others. In this talk, I will propose that—rather than studying the human mind as an isolated computer—we can instead imagine each mind within a collaboration as a node in a distributed system. I will present two lines of work, which each provide a complementary view of how humans think together. The first line of work takes stock of the basic psychological processes that enable collaboration. I will present evidence that the human capacity to understand other minds—or mentalizing—enables us to navigate key challenges of collaboration, including effectively communicating with collaborators and building collaborative teams. The second line of work examines how communities create conditions that foster collaboration. I will present results on the rise and fall of communities in One Hour One Life, a multiplayer online game where players build technologically advanced cities from scratch. Together, these projects suggest that human collaboration is powered not only by our ability to understand the social world, but also by our ability to actively reshape the social world by forming teams. I will conclude by proposing a theoretical framework to study how teams distribute tasks, information, and decisions over many minds.

**Bio**: Natalia Vélez is an Assistant Professor of Psychology at Princeton University. Her research examines the micro-scale cognitive processes and macro-scale community dynamics that make human collaboration possible. Natalia earned her B.S. in Brain and Cognitive Sciences at MIT and her Ph.D. in Psychology at Stanford University. Before joining Princeton in 2023, Natalia held an NIH D-SPAN (F99/K00) postdoctoral fellowship at Harvard University