

**Noah Goodman (Stanford)**

**Friday, October 16 | 3pm**

**Boylston 103**

**Title: Uncertainty in language and thought**

Probabilistic models of human cognition have been widely successful at capturing the ways that people represent and reason with uncertain knowledge. In this talk I will explore the ways that this probabilistic approach can be applied to natural language pragmatics and semantics. I will first describe a mathematical system, stochastic lambda calculus, that encompasses probabilistic uncertainty and compositional structure. Using this tool I will present a framework for language understanding that views literal sentence meaning through probabilistic conditioning and pragmatic enrichment as recursive social reasoning grounded out in literal meaning. I will consider how this framework provides a theory of the role of context in language understanding, focussing on examples of vagueness (scalar adjectives, generics) and figurative speech (hyperbole, irony, metaphor). Time permitting I'll touch on new directions related to focus, pre-supposition, and explanation.