CBI Cognitive Science Colloquium

Dr. William Thompson

Assistant Professor
UC Berkeley

**Friday, April 25
3:30–5:00 p.m.
Downtown Campus
Walter Cronkite, Room 122**

Human-level cross-sensory mappings from language alone

If the taste of red wine were a musical genre, what genre would it be? As humans we can readily make connections across sensory modalities—describing sounds as bright, tastes as sharp, or smells as sweet. I will discuss a systematic study of cross-sensory mappings in a large sample of human participants. Perhaps more than any other kind of reasoning, creative sensory reasoning seems deeply dependent on embodied first-person experience. For this reason, it was a surprise to discover that a neural network trained on language alone (GPT 3.5) can readily produce cross-sensory mappings that source-blind human raters say are better, more creative, and more deeply considered than matched mappings produced by our participants. I will discuss these results in the context of a broader question about cultural transmission in human populations: how much knowledge can be inherited simply by learning a language?