Inductive selectivity and integration of information from multiple sources

Nadya Vasilyeva
Northeastern University

John Coley
Northeastern University

Abstract: Inductive selectivity is well-documented: when people make inductive inferences from categorical premises, they reason differently about intrinsic versus contextual properties. However, the mechanism yielding this pattern remains unknown. We examined how people integrate knowledge about given premise categories with their knowledge about properties when they generate inductive inferences. By varying property and measuring participants’ beliefs about premise categories, we found that the integration process is markedly different for different kinds of properties. Specifically, we find that when the property is taxonomically biasing, the tendency to generate taxonomic inferences is largely independent of the salience of knowledge about premise categories, and is driven by the property alone. In contrast, when the property is contextually biasing, the tendency to generate contextual inferences depends on both the property and the salience of knowledge about premise categories. Thus, selectivity involves differences in how we integrate information as well as what inferences we generate.