

Transitive Class Containment – Abstract

Reasoning about structured class relationships is a core human capacity that contributes to the enormous efficiency of human learning. Class reasoning allows human beings to transfer information about shared features to a huge array of class members (e.g., birds have feathers) and organize our behavior in important ways (e.g., knives, stoves, and household cleaners are in the class dangerous). Among the many logical relational features that emerge in hierarchical class reasoning is transitive class containment (TCC). TCC is evident when an individual recognizes that if a super ordinate class (e.g., mammals) contains another class (e.g., dogs), that member of the dog class are also mammals (e.g., spaniels). Although research has demonstrated the uneven emergence of TCC in children between 3 and 7-years-old, little is known about how it emerges or how to help it emerge. Based on prior research that had been successful teaching classification that lead to TCC using conditional discrimination teaching, we adapted these procedures to teaching young children. Although all children learned instructed relationships, evidence for the spontaneous emergence was exceedingly limited. It appears that our sessions may have included too many distractors, not taught sufficient level one exemplars, and had instructional sessions that were too widely spaced. Results suggested that 3-year-old children may be able to learn TCC, but procedural revisions would be necessary to clearly demonstrate this effect.