

Adults' drawing and recognition of familiar objects and substances: Nonsolids are hard to identify

Lynn Perry

University of Miami, Coral Gables, Florida, United States

Abstract: In English, categories of solid objects (e.g., couch) are similar in shape, but vary in color and material; categories of nonsolid substances (e.g., yogurt) are similar in material, but vary in color and shape (Samuelson & Smith, 1999). Although even infants can discriminate between how solids and nonsolids should behave (Hespos et al., 2009), increasing evidence suggests recognizing specific substances is difficult for children (Perry et al., 2014). This begs the question, what do adults even know about nonsolids? Twenty adults drew 23 familiar solids and nonsolids. 116 participants from Amazon Mechanical Turk attempted to identify each drawing. Participants more accurately identified drawings of solids ($M=.70$) than nonsolids ($M=.25$), $X^2(1)=13.87$, $p=.0002$. Drawings of nonsolids leading to accurate identification often depicted prototypical containers (e.g., milk carton). These results suggest visual recognition—even of nonsolids—is aided by shape and that adults may conceptualize nonsolids as more object-like than was previously thought.