{Lindsey, 2009 #8224}.

{Goldstein, 2009 #6998;Roberson, 2008 #7588;Regier, 2007 #8489;Regier, 2005 #8218;Franklin, 2005 #7003;Kay, 2003 #16203;Levinson, 2000 #8498;Davies, 1998 #8247;Saunders, 1997 #9544;Zollinger, 1988 #8259}

{Zhou, 2010 #16276}

In pigeons {Wright, 1971 #18677} and bees {Kühn, 1927 #18678}

Are color categories innate or learned?

Color categories are a fundamental part of experience that allow humans to parse visual and conceptual information. Children play games grouping objects by color; cities organize subway systems with color-coded lines; and cultures distinguish their members by skin-color categories. Following Galileo, the empiricist philosopher John Locke identified color as a prototypical example of a “secondary property”—a property that is “in some way—metaphysically, epistemically, linguistically—derivative, less than fully real, or otherwise metaphysically feeble; or misleading, subjective, ambiguous, or otherwise not perspicuous” (<https://plato.stanford.edu/entries/qualities-prim-sec/>)

Representations of the structure of particular causal hypotheses, and of the nature of the variables and relationships involved in those causal networks. Higher-level generalizations can be learned. Griffiths and Tenenbaum (2007,2009; Tenenbaum, et ai., 2011),

Beginning early in life, children learn abstract generalizations about causal structure, and color is an important way this is done, for the colors of things relate to their behavioral relevance: the state of the banana, whether it is ripe or not, is signaled by its color. The knowledge is necessarily abstract because color is lower dimensional than the space of objects and concepts—one color can map only many shapes, while one shape generally maps onto a more limited set of colors. Because the abstract framework of color-mapped concepts is sophisticated, it requires training and time to develop, which might explain why color concepts develop surprisingly late in childhood.