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The function of function: People use teleological information to predict prevalence

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Abstract

Folk-biological concepts are sensitive to both statistical information about feature prevalence (Hampton, 1995; Kim & Murphy, 2011; Rosch & Mervis, 1975) and teleological beliefs about function (Atran, 1995; Keil, 1994; Kelemen, Rottman, & Seston, 2013; Lombrozo & Rehder, 2012), but it is unknown how these two types of information interact to shape concepts. In three studies ($N = 438$) using novel animal kinds, we found that information about prevalence and teleology inform each other: People assume that common features are functional, and they assume that functional features are common. However, people use teleological information to predict the future distribution of features across the category, despite conflicting information about current prevalence. Thus, both information about prevalence and teleological beliefs serve important conceptual functions: Prevalence information encodes the current state of the category, while teleological functions provides a means of predicting future category change.