

Goodness-of-Example

If mutability reflects the degree of structural coherence provided by a feature, then transformations of mutable features should affect the typicality rating of a category less than transformations of immutable ones. One standard measure of typicality is goodness-of-example. Hence, we asked people to rate the goodness-of-example for a category of an instance missing the critical feature. We asked participants questions with the same general form as “how good an example of an apple would you consider an apple that does not ever grow on trees?”

Similarity-to-an-Ideal

Finally, we asked participants how similar an instance missing a feature is to an ideal instance. We defined an ideal as an instance having all the features of the category, both mutable and immutable. Transforming features should be perceived to violate this ideal conception to the extent that features are immutable. We asked participants, for instance, “how similar is an apple that doesn’t grow on trees to an ideal apple?”

Measures of Category Centrality

Counterfactual Naming

As a measure of category centrality, we asked people whether an instance would remain a member of a name category even if it did not have the feature. For example, “Would something be called an apple even if it did not ever grow on trees?” Unlike our other measures, this question used the modal “would.” This modal suggests that the question has a conventionally appropriate answer; after all, name categories are primarily matters of social agreement. We maintain that judgments of name appropriateness rely more on beliefs about category membership—on an outside view of a category—than on beliefs about conceptual structure—on an inside view (see Ahn & Sloman, 1997, and the introduction to Study 4 below for more detail). We posit that, when asked whether a category label for an object is appropriate, people have a tendency to consider their experience with instances of the category, and not the degree of match between the object and the concept elicited by the label.

Variability

Features can be more or less stable across category instances; i.e., they are differentially variable. Note that variability represents, to a large extent, the same empirical structure as mutability. Judgments of mutability reflect the degree to which a feature can be mentally transformed; judgments of variability reflect estimates of actual feature transformations across remembered category instances. To examine the relation between judgments of mutability and variability, we asked subjects to estimate the percentage of category members displaying a feature (e.g., “what percentage of apples grow on trees?”). This measure is often called category validity. Because we are treating all features as binary, we were