Redder reds, redder purples, but not redder blues: color gradability knowledge among blind and sighted adults

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Abstract

A key characteristic of color perception is that it both categorical and continuous. This is reflected in graded color adjective use. This red fruit is redder than the other red fruit sounds more natural than this red fruit is redder than the blue fruit (Kennedy & McNally, 2010). We examined the contribution of first-person sensory experience to color gradability understanding by working with congenitally blind adults. Blind (n=20) and sighted (n=15) adults rated the naturalness of statements describing two objects of the same color (two red mugs), dissimilar colors (red mug, blue mug) or similar colors (red mug, purple mug). Both groups judged redder as most natural for two red objects, least for objects with different colors (red/blue) and intermediate for objects with similar colors (red/purple). Color similarity had a larger effect for the sighted group. Understanding color gradability does not require first-person perception.