

1135-65-2993

Nicole A Fider* (nfider@uci.edu). *A numerical study of color category boundaries and category evolution*. Preliminary report.

Color categorization in humans is a topic in psychology and linguistics which can shed light on human thought and perception in general. Although individuals can divide the color space in different ways, it is accepted that in a linguistically unified society there exists a specific set of basic color categories which speakers use when categorizing the color space. These categories give members of the population the ability to communicate color information with each other, and can evolve over time as the culture and language evolve. We believe that dynamic changes are less likely to occur within categories and more likely to occur on or around category boundaries. We present a mathematical method of identifying a language's set of color boundaries based on color-naming data provided by the World Color Survey Data Archives and discuss the possible dynamics of category evolution and how they can be related to the numerical data. (Received September 26, 2017)