Cross-Cultural Color Preferences in Japan and the USA

Wakako Fushikida[1], Karen B. Schloss[2], Kazuhiko Yokosawa[1], & Stephen E. Palmer[2]

[1]Department of Psychology, University of Tokyo; [2]Department of Psychology, University of California, Berkeley

Background

Cultural Differences in Color Preference

Saito (1996) studied color preferences in Asia (Japan, Korea, and Taiwan) and found commonalities in highest preference for vivid blue and high preference for white. Complex differences in preference were interpreted in terms of different symbolic meanings in different cultures and religions.

Ou et al. (2004) studied color-emotions in Britain and China. They found that the British preferred "cool" colors, whereas the Chinese preferred "clean, fresh, modern colors."

Hurlbert & Ling (2007) studied color preferences in Britain and China. They found that Chinese observers tended to have higher preference for redder colors than British observers did and interpreted this effect as arising because red is the symbol of "good luck" in China.

Research Questions

- What ***commonalities*** exist between color preferences in American and Japanese cultures?
- What ***differences*** exist between color preferences in American and Japanese cultures?
- What ***gender differences*** exist in these two cultures, and how do they compare across cultures?
- Where do color preferences come from, and how might cross-cultural effects be explained?

General Methods

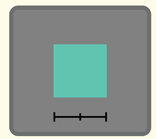
American Participants
48 Bay Area residents
24 males
24 females

Japanese Participants
40 University of Tokyo students
20 males
20 females

Experimental Tasks

Color Preference Ratings:
"How much do you ***like*** this color?"

Color Composition Ratings:
"How ***Blue/Yellow*** is this color?"
[or ***Red/Green***, ***Light/Dark***, ***Saturated/Desaturated***]



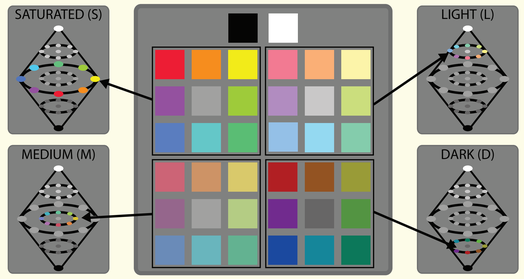
Line-mark rating
(-200 to +200 px)

The Berkeley Color Project (BCP) 37

8 Hues consisting of:

4 Unique Hues:
Red (R)
Yellow (Y)
Green (G)
Blue (B)

4 Angle Bisectors:
Orange (O)
cHartreuse (H)
Cyan (C)
Purple (P)



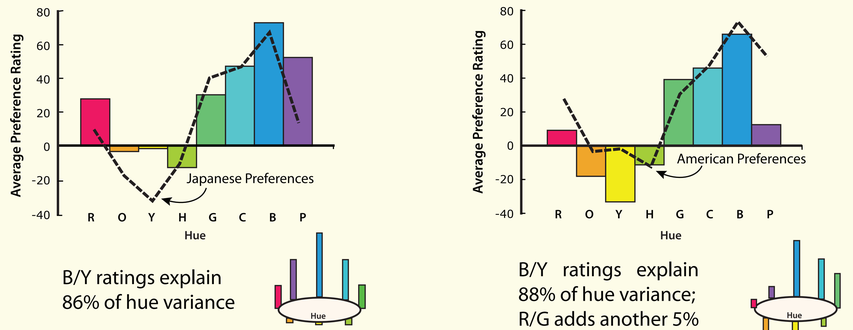
4 "Cuts" (S, M, L, D)
Lightness & Saturation levels

+ 5 achromatic colors

Munsell colors specified in CIE 1931 values through the Munsell Renotation Table (Wyzecki & Stiles, 1967)

Preference for Hue

r = +.87

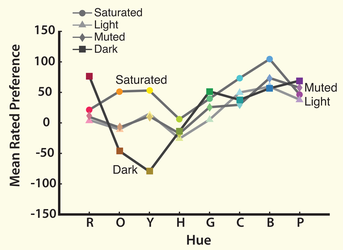


B/Y ratings explain 86% of hue variance

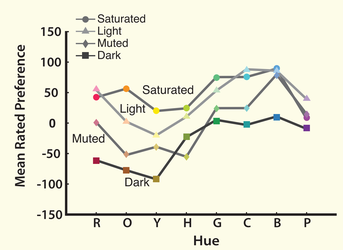
B/Y ratings explain 88% of hue variance; R/G adds another 5%

Preference for All Chromatic Colors

r = +.65

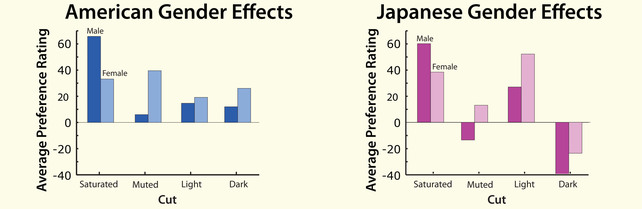


Composition ratings explain 57% of variance: B/Y (34%), Sat. (17%), and L/D (6%)

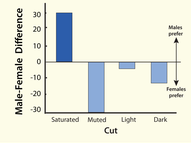


Composition ratings explain 79% of variance: L/D (25%), B/Y (39%), and Sat. (15%)

Cultural & Gender Differences by Cuts

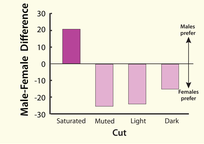


Japanese like Light colors and dislike Dark colors more than Americans do (p<.001)



In both cultures, men like Saturated and dislike Muted colors more than women do (p<.01)

Japanese women like both Light and Dark colors more than Japanese men do (p<.05)



WAVEs of Color and Emotion

Where do color preferences come from?

The Ecological Valence Hypothesis: People like colors of objects they like (e.g., sea and sky) and dislike colors of objects they dislike (e.g., feces and vomit).

Phase 1: Colored Object Associations: 74 participants viewed each of the BCP-37 colors and verbally described as many objects as they could having that color.

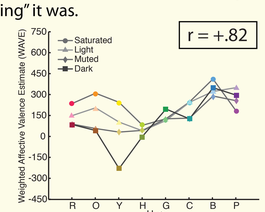
Phase 2: Object Valence Ratings: 98 other participants saw the 280 object descriptions and rated each for how "appealing" it was.

Calculating WAVEs of colors (Weighted Affective Valence Estimates): Average valence ratings for each description were multiplied by frequency of report for each color, then averaged.

Correlation with US preferences is +.82!

WAVE data from Japanese participants are currently being collected.

r = +.82



Conclusions

Cultural Commonalities of Color Preference
Both American and Japanese observers generally like blue and cool hues, but dislike yellows and warm colors, especially dark yellows and oranges.

Cultural Differences in Color Preference
Japanese like Light colors and dislike Dark colors relatively more than Americans.

Gender Differences in Color Preference
Men prefer Saturated to Muted colors whereas women prefer the opposite.
Japanese women like both Light and Dark colors more than Japanese men do

References & Acknowledgments

Hurlbert, A. C., & Ling, Y. (2007). Biological components of sex differences in color preference. *Current Biology, 17*, 623-625 (2007).
Ou, L.-C., Luo, M.R., Woodcock, A., & Wright, A. (2004). A Study of Colour Emotion and Colour Preference. Part III: Colour Preference Modeling. *Color Research Applications, 29*, 381-389.
Palmer, S. E., & Schloss, K.B. (in preparation). The ecological valence theory of color preference. (Manuscript available)
Saito M. (1996). Comparative studies on color preference in Japan and other Asian regions: with special emphasis on the preference for white. *Color Research Applications, 21*, 35-49.

We gratefully acknowledge the assistance of Michael Webster and all members of PalmerLab. This research was supported in part by a National Science Foundation Grant BCS-0745820 and a gift from Google to Stephen Palmer, and by Amy's Frozen Natural Foods.