

Color Preferences are not Universal: Supplementary Section

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Color preference research has traditionally focused on summarising or explaining the color preferences of groups of people. Claims of universal patterns and trends in color preference have generally been based on group analyses, with little consideration of the individual. Initial investigation of this issue has revealed that, although patterns can be identified at the group level, individual differences in color preferences are also considerable (Palmer & Schloss, 2010). Therefore, even though an average pattern of color preference can be identified for a particular group (e.g., peak at blue, minima at yellow), this may in fact not be true of any one individual. The extent of individual difference in color preference could therefore present an additional challenge to the notion that color preferences are ‘universal’ or somehow ‘biologically constrained’.

In the current investigation, as for Palmer and Schloss (2010b), inspection of individual color preferences revealed a multitude of different patterns of color preference, even within a particular culture or gender. To illustrate this, figure S1 illustrates the color preferences of four British females, with the average pattern of preference for British females for comparison. As can be seen in the figure, the pattern of preference varies across females, and no one female has the same pattern of color preference as the group average.

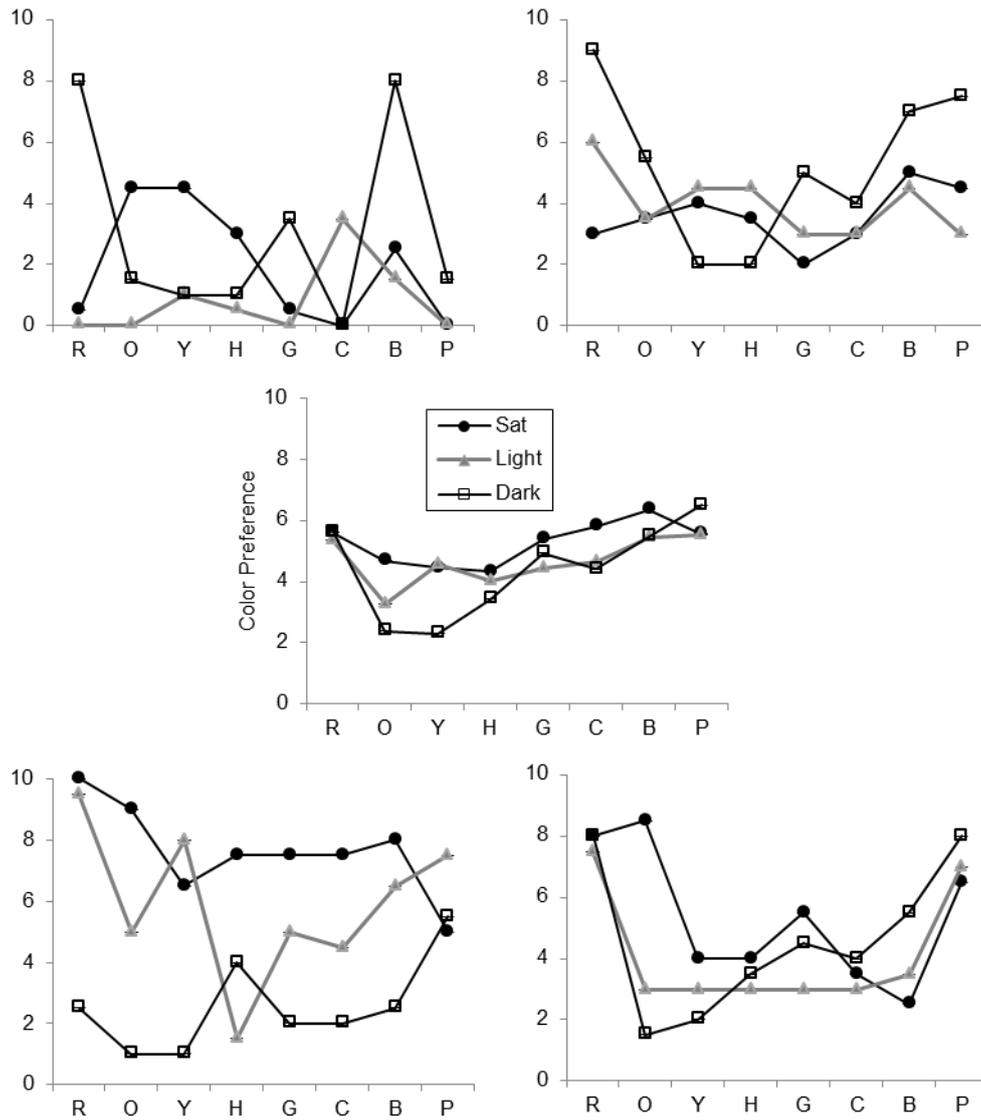


Figure S1. A random selection of color preference ratings for individual British females (outer sub-figures), with the average color preferences of British females given in the centre of the figure.

The main analyses of the current investigation identified the key characteristics of color preference for the different groups. Here, we present histograms for these key characteristics, in order that the extent of individual differences can be observed. These histograms give the frequency of individuals whose color preferences displayed a particular key characteristic. For British participants, one of the key characteristics of the average pattern of color preference was a preference for blue over yellow. For the Himba, one of the defining characteristics of their average pattern of color preference, was a preference for the saturated

hues of red, orange, yellow, green and chartreuse (ROYGH) over the saturated hues of cyan, blue and purple (CBP). A score was calculated for each individual in order to capture the extent to which these patterns applied at an individual level. Preference for blue vs. yellow was calculated by summing preference scores for the three blue hues (saturated, light and dark) and then subtracting the summed preference scores for the three yellow hues. Preference for ROYGH vs. CBP was calculated by taking the average preference for saturated ROYGH and then subtracting the average preference for saturated CBP. Figure S2 gives the histograms for these scores (S2A blue vs. yellow; S2B ROYGH vs. CBP) for British and Himba participants. A positive score indicates a preference for blue over yellow, or ROYGH over CBP. A negative score indicates a preference for yellow over blue or CBP over ROYGH. The absolute magnitude of the score indicates the strength of the preference.

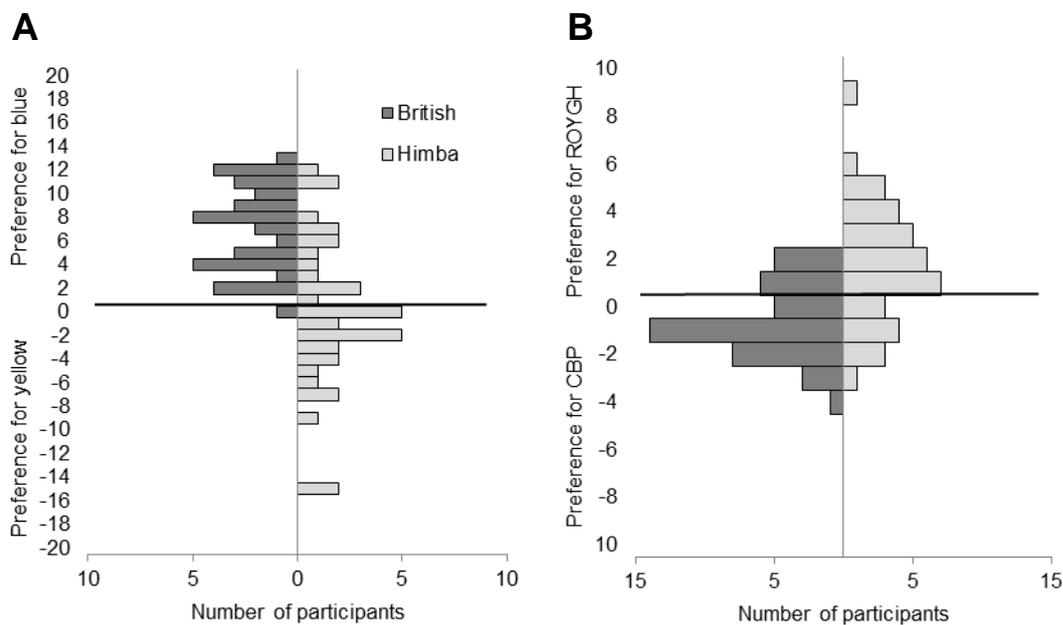


Figure S2. Individual British (left) and Himba (right) preference for blue vs. Yellow (A) and preference for saturated Red, Orange, Yellow, Green and Chartreuse over Cyan, Blue and Purple (B). A positive score indicates a preference for blue over yellow or ROYGH over CBP, and a negative score indicates a preference for yellow over blue or CBP over ROYGH.

As can be seen in figure S2A, all but one British participant had a preference for blue over yellow. In contrast, Himba participants had a variety of scores with some individuals preferring blue over yellow, but the majority preferring yellow over blue. Therefore, one of the main characteristics of the average pattern of British color preference does appear to be remarkably consistent across British individuals. A key characteristic of the average pattern of Himba color preference, the preference for saturated red, orange, yellow, green and chartreuse over cyan, blue and purple, appears to be less consistent across individuals as there are a cluster of Himba individuals whose preference goes in the opposite direction. Nevertheless, the majority of Himba individuals do share the pattern of the average curve. On the other hand, the majority of British individuals have a preference for saturated cyan, blue and purple over the other saturated hues.

The above analyses highlight the extent of individual differences in color preference. These individual differences should be considered when evaluating claims of ‘universal trends’ in color preference, and theories of color preference need to provide an account for both group differences in color preference as well as differences at an individual level.