

POSTER

CROSS-CULTURAL UNIVERSALITY OF EYE-COLOUR CATEGORIES

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ABSTRACT

Insights from genetics, cross-cultural psychology, and linguistics sometimes challenge the existence of a universal human colour-naming system. Specifically, environmental conditions and language constraints may cause colour naming grids to differ substantially across cultures.

The concept of iris colour classification, however, often overlooks these differences. We used a large set of colour-calibrated facial photographs from a Czech population known for high iris colour variance (N = 195; 106 women, 89 men; mean age = 23.23 ± 4.17), rated by over 300 participants from six countries (Australia & New Zealand, Czechia, Colombia, India, Turkey, Vietnam). Across and within all samples, “blue” was the most frequently assigned eye colour (45 %), followed by “brown” (34 %). Notably, 22 % of ratings fell into the category named “other” (neither blue nor brown).

We used Bayesian analysis to test whether these ratings corresponded to measured iris colour variance (CIELab L*, a*, b*). Model predictions (i.e., which L*a*b* values predict which assigned eye colours) did not differ substantially across cultures. Human raters consistently responded to a* and b* variance in a predictable way: lower a* and b* values led to “blue” classifications, and higher values to “brown.”

We interpret this as evidence that iris colour classification – perhaps influenced by newly introduced mass media or the recent surge of Western cultural norms – is relatively consistent across the cultures in our sample. This consistency suggests that iris colour may represent a specific and distinct category in human colour perception.