Contextual Dependence of Human Preference for Complex Objects: A Bayesian Statistical Account

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Presentation Abstract Summary Understanding how humans perceive the likability of high-dimensional "objects" such as faces is an important problem in both cognitive science and AI/ML. Existing models of human preferences, in both machine learning and psychology, generally assume these preferences to be fixed. However, human assessment of facial attractiveness appears to be highly context-dependent. Specifically, the classical Beauty-in-Averageness (BiA) phenomenon, whereby a face morphed from two original faces is judged to be more attractive than the originals, significantly diminishes when (1) the original faces are recognizable, or (2) when the attractiveness judgment is preceded by a similarity judgment of the morph relative to the originals, or (3) when the morph is bi-racial and the attractiveness judgment is preceded by a race categorization. Intriguingly, doing the similarity judgment first (2) significantly increases the perceived attractiveness of the originals. Here, we present a statistically grounded explanation of contextual dependence of human attractiveness judgment.

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Keywords

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