Attractive faces are not always average[1]

LM DeBruine
University of Aberdeen

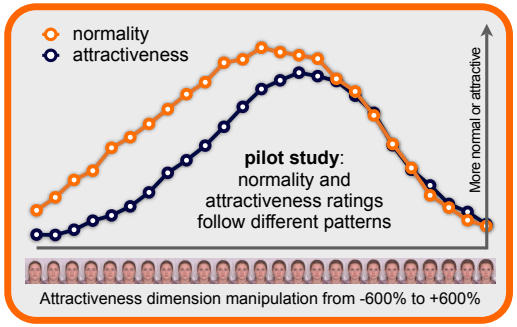
L Unger
University of Aberdeen

BC Jones
University of Aberdeen

AC Little
University of Striling

DR Feinberg
Harvard University

Background: Average faces are typically more attractive than their constituent faces, even controlling for their increased symmetry and smoother skin, leading many researchers to conclude that "attractive faces are only average"[2] and that face preferences are an artifact of the visual system. Indeed, some studies of the effects of visual experience on face preferences use judgements of attractiveness and normality interchangably[3,4]. However, exaggerating the shape differences between an average of 60 female faces and the average of the 15 most attractive faces from that sample (increasing distance from mathematical average) increased attractiveness in one study[5], but others have failed to replicate this effect[6].

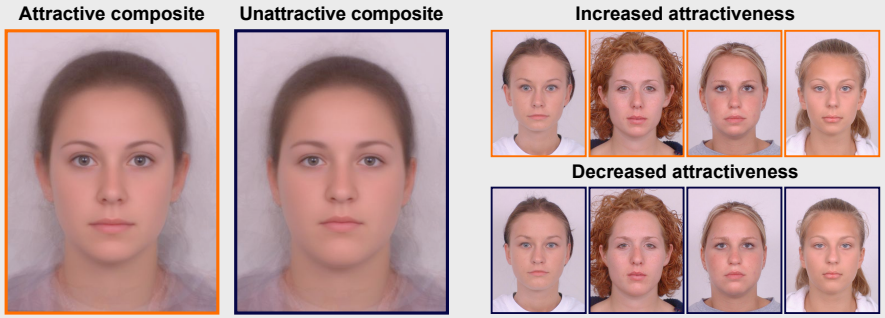


Hypotheses

If attractive faces are only average, visual adaptation should increase both normality and attractiveness judgments of similar faces.

Alternatively, if there is directional selection for a certain "attractive" non-average face configuration, the effect of adaptation on attractiveness judgments should be reversed for attractive faces (i.e. exposure to attractive faces will decrease attractiveness judgments for attractive faces and exposure to unattractive face will increase attractiveness judgments for attractive faces).

Methods



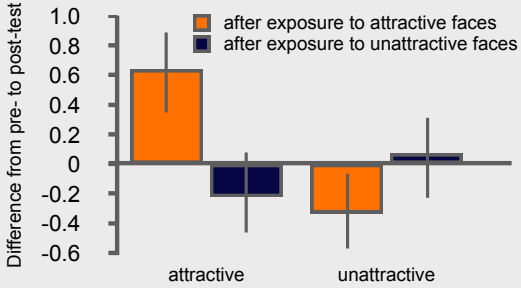
Pre- and Post- Adaptation Rating: Participants judged the attractiveness (n=148) or normality (n=170) of the above attractive and unattractive composites on a 1-7 scale both before and after adaptation

Adaptation: 20 individual faces were presented for 3 seconds each. Half the participants viewed faces with increased attractiveness, half viewed faces with decreased attractiveness

Results

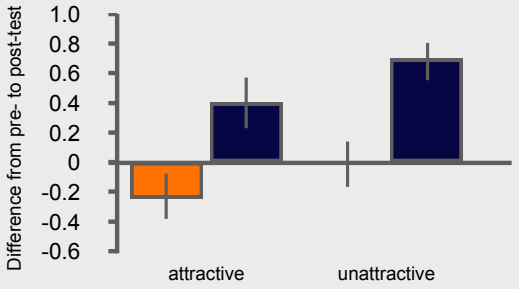
Analyses used mixed-design ANOVAs with **phase** (pre-adaptation, post-adaptation) and **composite attractiveness** (attractive, unattractive) as repeated factors and **exposure type** (attractive, unattractive) as the between-subjects factor.

Normality Judgments



For normality judgements, there was an interaction among phase, composite attractiveness and exposure type ($F_{1,168} = 6.55$, $p = .011$).

Attractiveness Judgments



For attractiveness judgements, there was an interaction between phase and exposure type ($F_{1,146} = 19.5$, $p < .001$).

Conclusions: These results confirm that exposure to highly attractive or unattractive faces can have opposite effects on judgments of attractiveness and normality of highly attractive faces, refuting the hypothesis that attractive faces are only average. This supports the idea that there is a dimension of facial attractiveness that is orthogonal to averageness and that face preferences impose directional selection, rather than stabilising selection, on face shape.

References: [1] DeBruine et al. (in press) *J Exp Psychol: HPP*. [2] Langlois & Roggman (1990) *Psych Sci*, 1, 115-21. [3] Rhodes, Jeffery, Watson & Nakayama (2003) *Psych Sci*, 14, 558-66. [4] Little, DeBruine & Jones (2005) *Proc Roy Soc Lond B*, 272, 2283-7. [5] Perrett, May, & Yoshikawa (1994) *Nature*, 368, 239-42. [6] Rubenstein, Langlois & Roggman (2002) In Rhodes & Zebrowitz (Eds.) Facial Attractiveness, 1-34.

To contact the authors email faceresearch@abdn.ac.uk or visit http://www.facelab.org