

Gaze direction influences perceptions of facial expressions and face preferences

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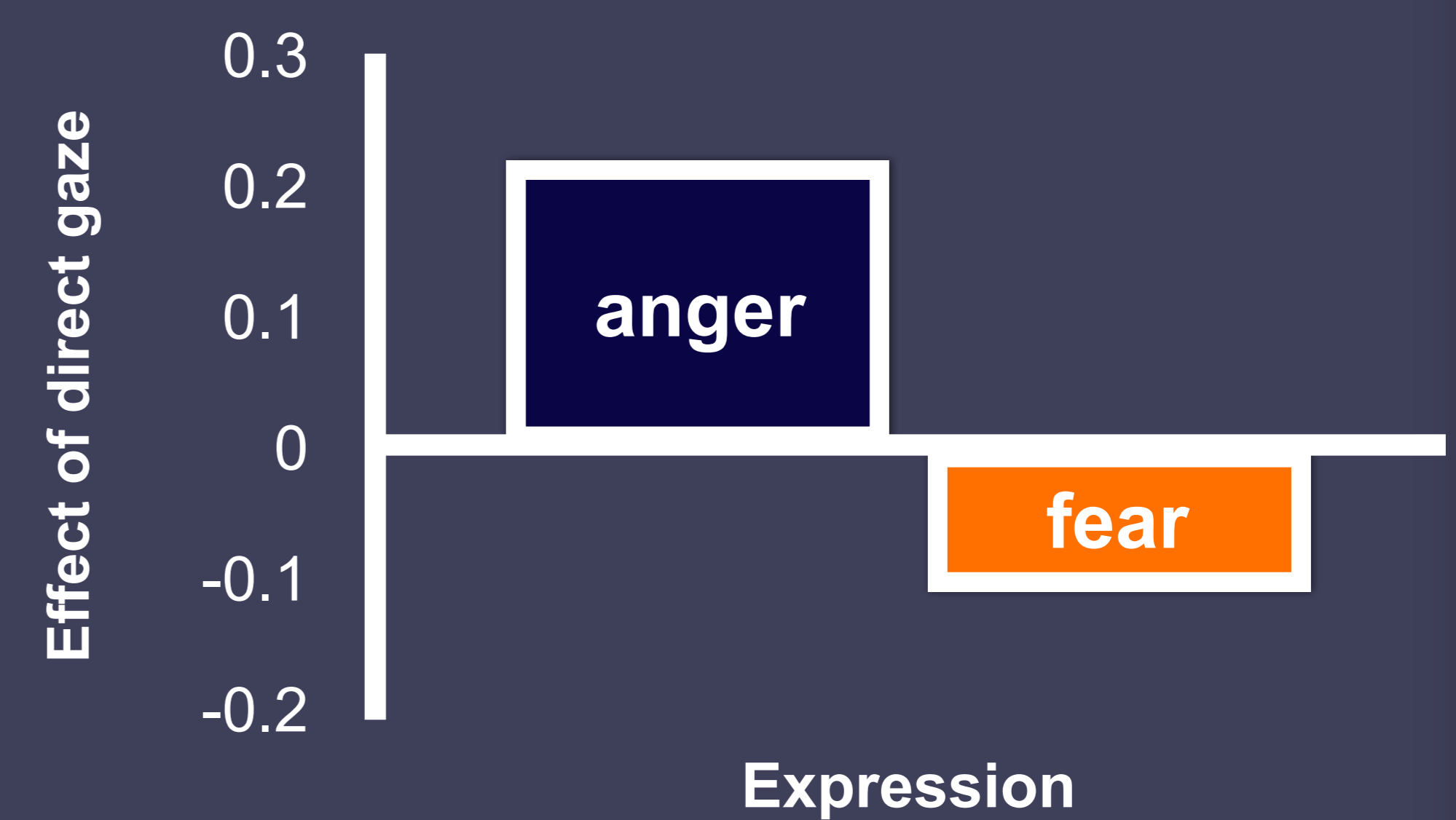
Background Most studies of facial attractiveness and expression perception have used stimuli with direct gaze. However, recent studies have shown that gaze direction can modulate perceptions of facial expressions^{1,2} and the strength of preferences for physically attractive faces³. Here we present further evidence that gaze direction affects the perceived intensity of facial expressions (Experiments 1 and 2) and the strength of preferences for attractive (i.e. feminine⁴) female faces (Experiment 3).

Experiment 1

Which face looks angrier?



Which face looks more afraid?

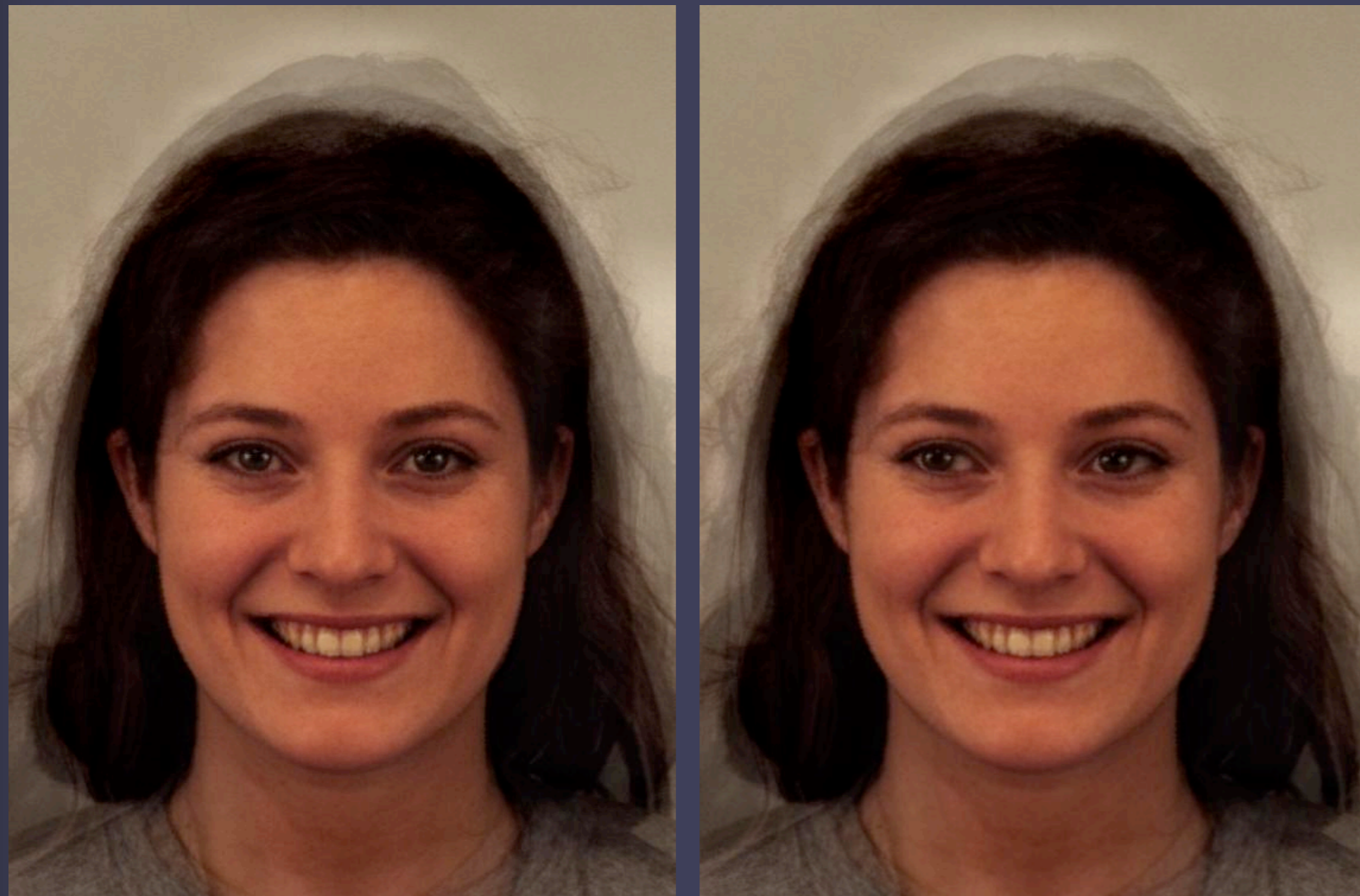


Composite angry and fearful faces with direct and averted gaze were manufactured. Participants (N=195) viewed pairs of faces that differed only in gaze direction and indicated the magnitude of the perceived difference in intensity of expression.

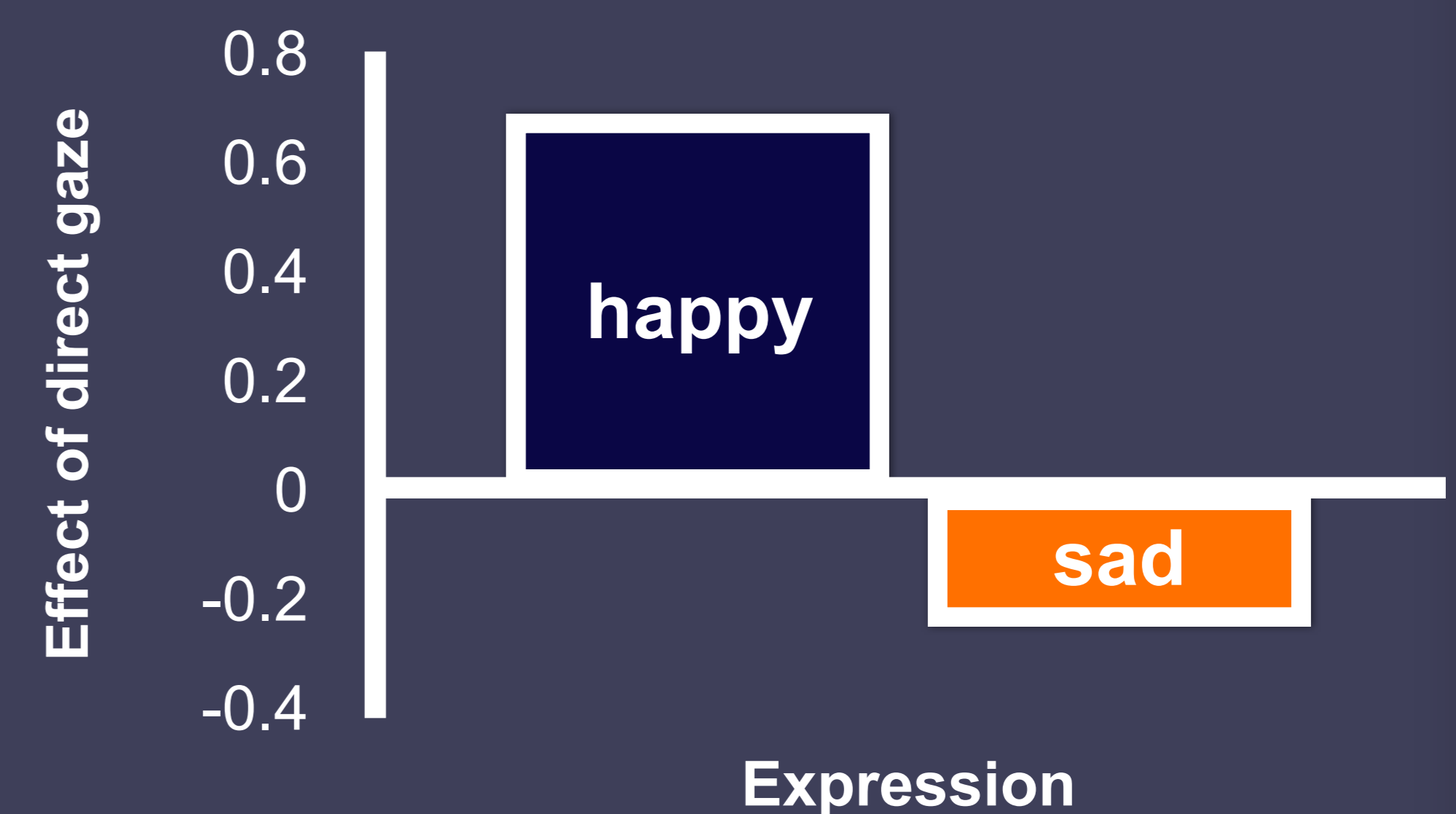
Repeated measures ANOVA revealed a main effect of expression ($F(1,194)=5.79, p<.05$) and no other significant effects (all $F<1.06$, all $p>.3$).

Experiment 2

Which face looks happier?



Which face looks sadder?



Composite happy and sad faces with direct and averted gaze were manufactured. Participants (N=195) viewed pairs of faces that differed only in gaze direction and indicated the magnitude of the perceived difference in intensity of expression.

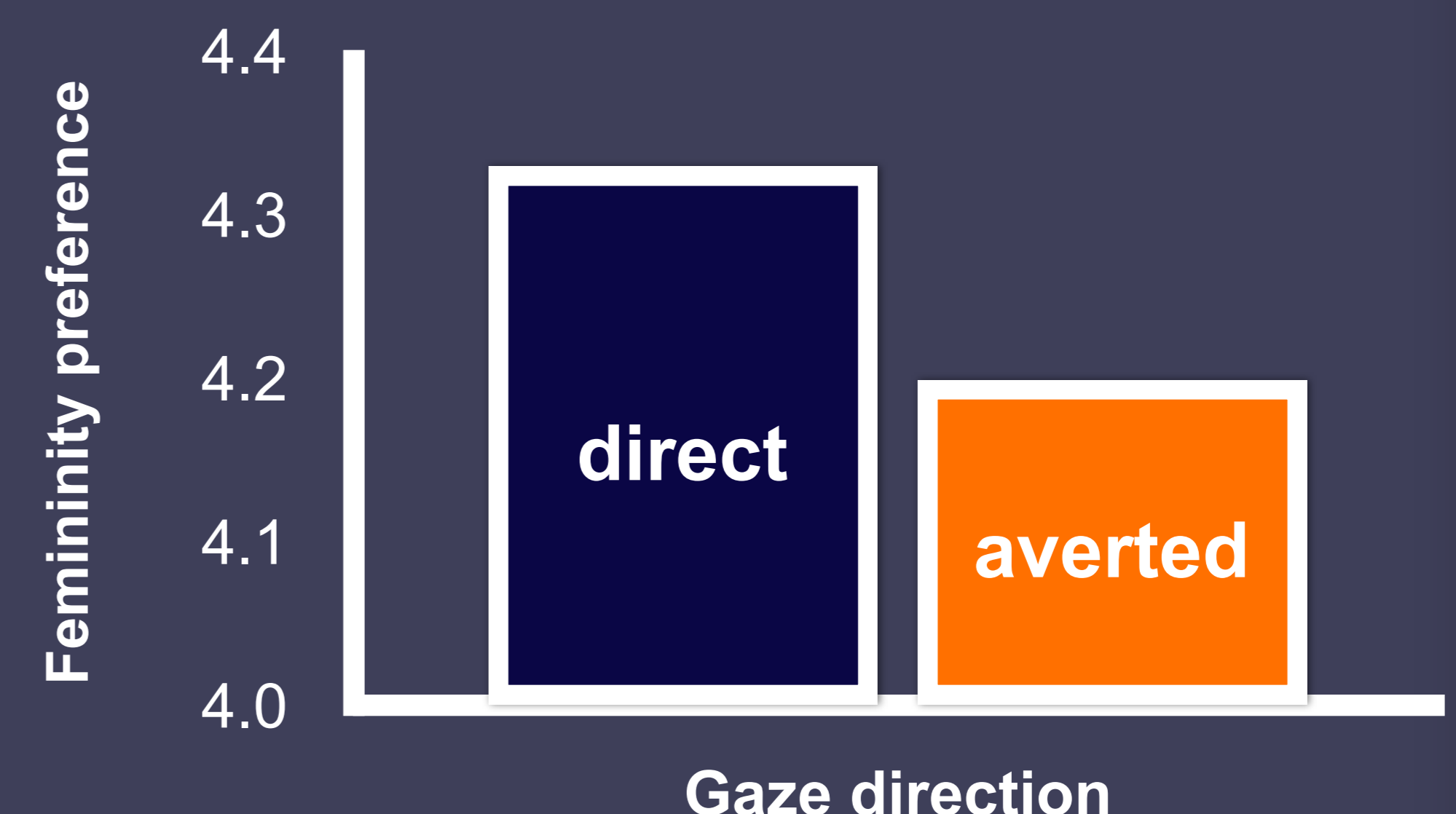
Repeated measures ANOVA revealed a main effect of expression ($F(1,194)=58.24, p<.001$) and no other significant effects (all $F<3.3$, all $p>.07$).

Experiment 3

Which face is more attractive?



Which face is more attractive?



Feminine and masculine versions of composite faces with direct and averted gaze were manufactured. Participants (N=291) viewed pairs of faces differing only in femininity and indicated the strength of their preference for the feminine face.

A paired samples t-test showed that preferences for femininity were strongest when faces were shown with direct gaze ($t(290)=2.38, p=.02$).

Conclusions In Experiments 1 and 2, angry and happy expressions were perceived as more intense with direct gaze than with averted gaze. By contrast, fearful and sad expressions tended to be perceived as more intense with averted gaze than with direct gaze. In Experiment 3, preferences for femininity were stronger when faces were engaging with the viewer than when faces were shown with averted gaze. Collectively, our findings highlight the importance of gaze direction for person perception.

References [1] Adams & Kleck (2003) *Psychological Science*, 14, 644–647. [2] Adams et al. (2003) *Science*, 300, 1536–1537. [3] Jones et al. (2006) *Psychological Science*, 17, 588–591. [4] Perrett et al. (1998) *Nature*, 394, 884–7.

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