Topic 5.

## Integrating social and physical cues in face preferences

## Physical attractiveness


Most studies of facial attraction have investigated the effects of physical cues on face preferences

For example, the effects of symmetry (shown) and masculinity-femininity

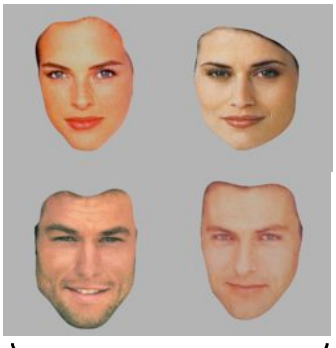
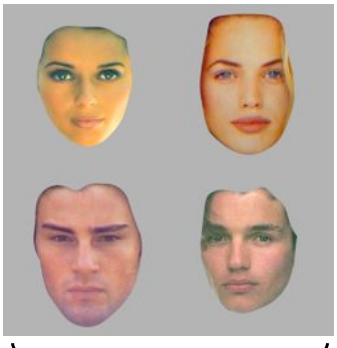
## Social cues in faces

Faces also contain social cues such as gaze direction (which tells you where a person is looking and what they are currently interested in) and expression (which tells you a person's emotional state). In addition to physical cues, these social signals might also be important for attractiveness

## Brain imaging and face preferences

Psychologists can use brain imaging methods to investigate the effects of viewing attractive and unattractive faces on activity in regions of the brain that are involved in processing rewards.

## Smiling and Neutral Faces

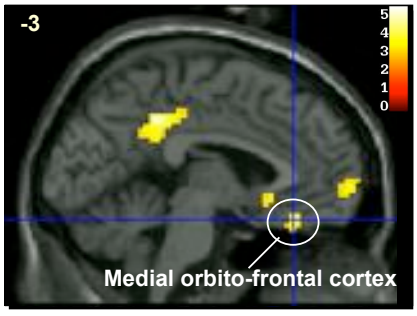



Happy

Neutral

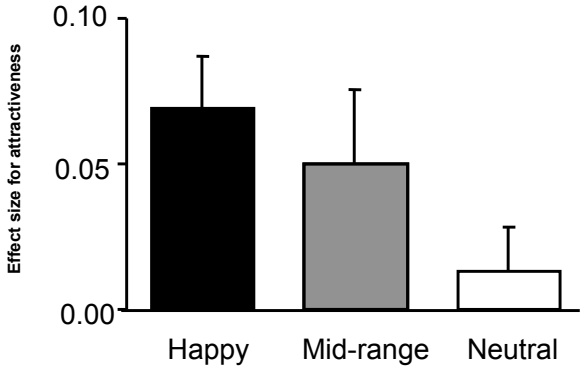
## Attractive Faces

O'Doherty et al. 2003



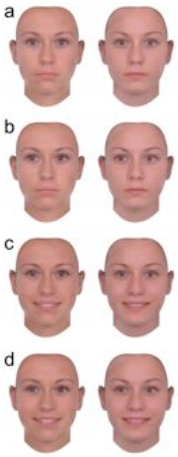

Medial orbital-frontal cortex is a reward centre
Activity increased by attractive faces - particularly if they are smiling

## Attractiveness and Smiling




Medial orbito-frontal cortex responds more to happy attractive faces than neutral attractive faces.

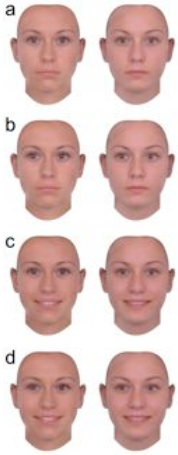
## Gaze, smiling and attractiveness preference

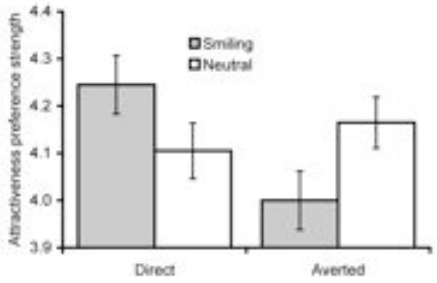



Jones et al. (2006) compared the strength of preferences for attractive faces when the faces were directing a smile at the viewer (e.g. c) than when they directed a smile away from the viewer (e.g. d).

Preferences for the high attractive face in each pair (the one on the left) were stronger when the faces were directing a smile at the viewer than away from the viewer.

## Gaze, smiling and attractiveness preference




This indicates that attractiveness preferences are stronger when the faces are directing positive social interest at you than away from you (i.e. the 2 grey bars are different)

## Gaze and anger / fear perception

People are quicker to classify angry faces as 'angry' when they are shown with direct gaze than averted gaze

People are quicker to classify fearful faces as 'scared' when they are shown with averted gaze than direct gaze

It is more important to know if someone is angry with you than at something nearby, but more important to know if there is something scarey nearby than that they are scared of you

## Integrating diverse cues in face perception

The effect of gaze direction on the extent attractive faces activate reward centers in the brain

The effect of gaze direction and expression on the strength of preferences for physical attractiveness

The effect of gaze direction on sensitivity to fear and anger expressions

all emphasize the sophistication and complexity of the integrative mechanisms and processes that underpin face perceptions

## Key points from Topic 5

Attraction is not only influenced by physical attractiveness

i.e. social cues also influence attraction - preferences for physical attractiveness are strongest when the depicted individuals appear interested in you (e.g. are smiling at you rather than at someone else) and the extent attractive faces activate reward centers is influenced by their expression

Perceptions of anger and fear are influenced by gaze direction

i.e. we are more sensitive to facial cues signaling anger when they are directed at us than elsewhere but more sensitive to facial cues signaling fear when they are directed elsewhere than at us

These findings emphasize the sophistication of the face processing system