

Cornwell *et al.* (2004)

Concordant Preferences For Opposite-sex Signals?
Human Pheromones And Facial Characteristics

This study is used to answer questions on:

BLOA: Pheromones

Abstract

This experiment aimed to test if pheromones are linked to attraction.

112 participants (56 male, 56 female) looked at images of people from the opposite sex. These images had been created to show different levels of masculinity or femininity. Participants had to rate how likely there were to have a short-term or long-term relationship with the person in the image

The participants then smelled a male pheromone, female pheromone or neutral smell and asked to rate how pleasant the smell was.

The findings of the study were that men who rated the very feminine picture highly liked the female hormone. Women who rated the very masculine images highly liked the male pheromone. This was for long-term relationships.

Researchers concluded that this shows a link between pheromones and choosing a mate for a long-term relationship.



Aim

- To test if pheromones are linked to attraction
- To test if pheromones are connected to masculine/feminine faces

Method

Participants

56 heterosexual females (average 21 years old) and 56 heterosexual males (average 21 years old) were selected from the University of St. Andrews. None of the participants were taking any hormonal medicine such as contraceptives.

Materials

3 different types of scent were used:

- Male pheromone (there were 2 types of male pheromone used)
- Female pheromone
- No pheromone (other smells – there were 2 types of smell used)

The scents were dripped onto filter paper and placed into a glass jar with a lid to contain the smell. The experimenters did not know which smell was in which jar when they conducted the test.

Facial images were created (6 male and 6 female). These consisted of four white, one African-Caribbean and one East Asian face. The images were selected to show higher or lower levels of masculinity or femininity.

Procedure

Participants were shown 6 different faces and were asked to select the face they prefer. They were asked to select which they thought would be best for a long-term relationship (living together, getting married). They were also asked to select a face that would be best for a short-term relationship (one-night stand, 2 week relationship). A control group was used which just asked participants to select the most attractive.

The order in which the 6 images were shown was different for each participant.

Once they were finished, participants were asked to smell the 5 different scents in the jars. They then rated the smell on pleasantness on a Likert-type scale from 1 to 7. If they couldn't smell anything, they were asked to say so.

How pleasant is this smell?						
1	2	3	4	5	6	7
(very unpleasant						very pleasant)

Results

Women who rated the very masculine images as best for a long-term relationship preferred the male pheromone smell.

Men who rated the very feminine images as best for a long-term relationship preferred the female pheromone smell.

The results showed no link between short-term relationships and smell.

Conclusion

Pheromones are possibly related to how human beings judge a prospective mate. If a pheromone is strong, we may be attracted to that person in the belief that they are strong and healthy.



Evaluation

Generalisability

- The sample size was quite large, and a further study was conducted using nearly another 150 people.
- All the participants were, on average, 21 years old. This study cannot be generalised to people older or younger than 21.
- All the participants came from a university course, so these students may have some unique characteristics that other people do not have.

Reliability

- The researchers conducted a follow up study in which they asked participants directly which smell they would like their partners to have and the results also showed that people who refer the high masculine/feminine faces also preferred the masculine/feminine pheromone.
- Participants took part in the experiment alone so weren't influenced by others.
- The experimenter did not know which smell was which so could not affect results.
- The facial images were carefully prepared, and smells were carefully controlled.
- The method is well described and simple to follow, allowing replication.

Application to life

- The findings can explain attraction and why some people are more attractive than others.

Validity

- The study does not consider social or cultural factors that may affect attraction.
- The pictures used had been altered to appear more or less masculine/feminine, so this means that the images used were not 100% natural.
- There may be other factors other than facial involved e.g. strong pheromones may be associated with large muscles.

Ethics

- Participants were not placed in any dangerous or upsetting situation.
- The participants could leave if they desired and gave informed consent.

