

POSTER

NECKS OF KIN: DISCRIMINATING RELATEDNESS USING ODOUR

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ABSTRACT

Evidence suggests that humans can discriminate relatedness using only olfactory cues. In light of recent studies on the possibility that humans use odour during handshaking to assess others, we compared the efficacy of hand odour to communicate information about relatedness. Specifically, we investigated whether humans could correctly discriminate an unrelated female from a pair of biological sisters using olfactory cues from the hand, neck and axilla areas of the body. We recruited three different triplet sets, each containing a different pair of sisters and a different unrelated female of a similar age. Odour donors wore cotton pads for 24 hours in the three different locations (hand, neck and axilla). Participants were asked to smell these pads and identify which of the odours for each location they thought smelt the most different ('odd one out'). We found that the location where participants were able to correctly identify the unrelated female most reliably was the neck area. Differences in the results between odour triads highlighted the influence of individual differences in body odour and consequently olfactory communication. If odour is important in greetings, our results suggest that a greeting involving a hug may be more effective at communicating relatedness than a handshake.