**Are feminine men more invested fathers? Lack of compelling evidence for the association between paternal involvement and facial masculinity**

**Abstract**

The trade-off hypothesis (TOH) proposes that men with a particular level of masculinity share certain attributes. Specifically, masculine-looking men are suggested to be healthier, while feminine-looking men are presumed to be better parents. The TOH has remained an influential framework in human mate choice research although the evidence against two of the TOH’s main assumptions, concerning health and promiscuity, has been growing. Importantly, the empirical evidence for the putative association between masculinity and paternal investment is missing. This study tested the relationship between men’s self-assessed paternal involvement and their facial masculinity (*N* = 199, of which *n* = 135 were fathers). Participants filled out an online questionnaire containing two scales to measure their paternal involvement as well as multiple other scales to assess control variables. The facial masculinity score was derived from participants’ uploaded facial photographs using geometric morphometrics. In contrast to the TOH’s assumptions, there was no compelling evidence that men’s facial masculinity predicts paternal involvement. For one parenting measure there was even substantial evidence against the presence of the presumed relationship, according to the Bayes factor. The absence of a strong relationship between facial masculinity and paternal investment adds to the growing literature that questions the validity of the TOH. This study represents the starting point for the examination of the relationship between masculinity and paternal investment. Future research will benefit from repeating this study using a larger sample size and standardised photographs.