

Women's preferences for masculinity in male faces are predicted by pathogen disgust, but not moral or sexual disgust

LM DeBruine
University of Aberdeen

BC Jones
University of Aberdeen

JM Tybur
University of New Mexico

D Lieberman
University of Miami

V Griskevicius
University of Minnesota

Women's preferences for male masculinity reflect tradeoffs between indirect benefits of greater genetic health and direct costs of lower paternal investment¹⁻². Variables that affect the importance of these costs and benefits also affect masculinity preferences¹⁻⁴. Because a partner's heritable health is of greater value when pathogens are a greater concern, concern about pathogens may be one such factor that contributes to the resolution of this tradeoff. Indeed, cross-cultural differences in mate preferences and mating systems vary consistently with differences in pathogen prevalence⁵⁻⁷. Thus, we predicted that disgust sensitivity in the pathogen domain, but not in the relatively independent domains of moral and sexual disgust⁸, will predict women's preferences for male facial masculinity.

Manipulated Masculinity

345 women aged 18-40 years ($M = 25.3$, $SD = 6.63$) completed a masculinity preference task and the Three Domains of Disgust Scale⁸ (TDDS).

Stimuli were 20 pairs of male faces that had been feminized (top) and masculinized (bottom) using established methods⁹. Participants chose the more attractive face from each pair.

The TDDS asks participants to rate each of 21 actions from *not at all disgusting* (0) to *extremely disgusting* (6). The actions were divided into three domains: moral, sexual, and pathogen disgust.

Linear regression [DV: masculinity preference; predictors: pathogen, moral and sexual disgust sensitivity] revealed a significant effect of pathogen disgust sensitivity ($t = 2.30$, $p = .022$, $\beta = .132$), whereby participants with higher pathogen disgust sensitivity preferred masculinity more than did those with lower disgust sensitivity. We found no effects of moral ($t = -0.01$, $p = .99$, $\beta = -.001$) or sexual ($t = -1.39$, $p = .17$, $\beta = -.082$) disgust sensitivity.



Three Domains of Disgust Scale

Moral disgust

1. Shoplifting a candy bar from a convenience store
2. Stealing from a neighbor
3. A student cheating to get good grades
4. Deceiving a friend
5. Forging someone's signature on a legal document
6. Cutting to the front of a line to purchase the last few tickets to a show
7. Intentionally lying during a business transaction

Sexual disgust

1. Hearing two strangers having sex
2. Performing oral sex
3. Watching a pornographic video
4. Finding out that someone you don't like has sexual fantasies about you
5. Bringing someone you just met back to your room to have sex
6. A stranger of the opposite sex intentionally rubbing your thigh in an elevator
7. Having anal sex with someone of the opposite sex

Pathogen disgust

1. Stepping on dog poop
2. Sitting next to someone who has red sores on their arm
3. Shaking hands with a stranger who has sweaty palms
4. Seeing some mold on old leftovers in your refrigerator
5. Standing close to a person who has body odor
6. Seeing a cockroach run across the floor
7. Accidentally touching a person's bloody cut

Unmanipulated Masculinity

74 women aged 18-40 years ($M = 23.8$, $SD = 5.38$) completed a different masculinity preference task and the TDDS.

Stimuli were the four faces that were rated most masculine (top row) and four faces rated most feminine (bottom row) from a group of 40 White male faces between the ages of 18 and 25 from the publicly available PAL database¹⁰. Participants chose the more attractive face from all 16 possible pairs of one masculine and one feminine face.



Identically to the manipulated masculinity study, here linear regression revealed a significant effect of pathogen disgust sensitivity ($t = 2.43$, $p = .018$, $\beta = .283$), whereby participants with higher pathogen disgust sensitivity preferred masculinity more than did those with lower disgust sensitivity. There were no effects of moral ($t = 0.17$, $p = .87$, $\beta = .021$) or sexual ($t = 1.44$, $p = .16$, $\beta = .184$) disgust sensitivity.

Here we show that disgust sensitivity in the pathogen domain is positively correlated with facial masculinity preferences, but disgust sensitivity in the moral and sexual domains are not. This finding was robust across two different methods of measuring masculinity preferences. Our findings present novel, converging evidence that systematic variation in women's preferences for masculine men reflects factors that influence how women resolve the tradeoff between the indirect benefits and the direct costs associated with choosing a masculine partner.

References: [1] Fink & Penton-Voak (2002). *Curr Dir Psychol Sci*, **11**, 154-158. [2] Gangestad & Simpson (2000). *Behav Brain Sci*, **23**, 573-644. [3] Jones et al. (2008). *Arch Sex Behav*, **37**, 78-84. [4] Gangestad & Thornhill (2008). *Proc Roy Soc Lond B*, **275**, 991-1000. [5] Gangestad & Buss (1993). *Ethol Sociobiol*, **14**, 89-96. [6] Low (1990). *Am Zool*, **30**, 325-339. [7] Penton-Voak, Jacobson & Trivers (2004). *Evol Hum Behav*, **25**, 355-370. [8] Tybur, Lieberman & Griskevicius (2009). *J Pers Soc Psychol*, in press. [9] DeBruine et al. (2006). *Proc Roy Soc Lond B*, **273**, 1355-1360. [10] Minear & Park (2004). *Behav Res Meth Ins C*, **36**, 630-633.

To contact the authors email l.debruine@abdn.ac.uk or faceresearch@abdn.ac.uk or visit <http://www.facelab.org>