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**Miller, Daniel, and Anderson, Ryan (2022) *Men's Sexual Preferences*. In:  
Shackelford, Todd K., (eds.) *The Cambridge Handbook of Evolutionary  
Perspectives on Sexual Psychology*. Cambridge University Press, Cambridge,  
UK. pp. 3-23.**

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Please refer to the original source for the final version of this work:

<https://doi.org/10.1017/9781108943543.003>

## **Sexual Preferences**

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## Abstract

Evolutionary sexual psychology posits that sexual preferences evolved in response to recurring adaptive problems faced by men and women in regard to reproduction and mating. Accordingly, asymmetries in the mating-related problems faced by the sexes should result in sex-differentiated preferences. Some asymmetries which could be expected to result in sex-differentiated preferences include: 1) the length of time during which one is able to produce offspring (much longer for men as compared to women; which is posited to result in men showing a preference for partners who display cues to fertility and reproductive viability); 2) minimum investment needed to produce offspring (much greater for women as compared to men; which is posited to result in men showing a greater preference for short-term mating relative to women); and 3) certainty of maternity/paternity of offspring (much greater for women as compared to men; which is posited to result in men showing preferences which mitigate partner infidelity and sperm competition). Consistent with the predictions of evolutionary sexual psychology, many of the physical characteristics which men find to be attractive in women are associated with fecundity (e.g., a low waist-to-hip ratio, youthfulness). Men do appear to display a greater interest in engaging in short-term mating relative to women. Men self-report more permissive attitudes toward casual sex, desire a greater number of sexual partners across various time periods, and report being more motivated by casual sex when dating or using dating apps. Large representative surveys frequently find a sizable sex difference in the number of sexual partners reported over the lifespan, although the degree to which this may reflect factors like differences in the way that men and women respond to such questions (e.g., estimating versus counting) is debated. Field experiments indicate that men are more inclined to accept offers of casual sex from opposite-sex strangers, and men appear to be more likely to pay for sex. The content of sexual fantasies and pornography also offer insights into the nature of men's sexual preferences. Men's sexual fantasies more frequently involve elements of sexual variety and non-monogamy (e.g., casual sex with multiple partners). Men also appear to consume pornography more frequently than women, which may reflect pornography providing vicarious access to excellent short-term mating opportunities, in the form of a myriad of virtual partners who are youthful, attractive, and display unusually high levels of sexual accessibility. The contents of pornography, and themes common to men's sexual fantasies, also demonstrate a preoccupation with partner infidelity.

**Keywords:** human mating; sexual preferences; mate preferences; sexual strategies; sex differences; evolutionary psychology

As originally articulated by Darwin (1871) *sexual* selection, as distinct from natural selection, refers to the evolution of characteristics that provide a *reproductive* advantage to an organism over a rival. The survival of an organism is important insofar as longevity affords opportunities for reproduction (Buss & Schmitt, 1993), hence any characteristic that positively effects the survival of an organism is indirectly enhancing its reproductive ability. Darwin (1871) applied sexual selection to instances in which organisms evolved characteristics whose functions were deleterious to the survival of the organism, but improved its mating success relative to rivals (such as the often-cited example of the peacock's cumbersome tail).

Nearly all individuals exhibit sexual preferences, and individuals of the opposite-sex are typically motivated to behave in ways that embody such preferences. Indeed, indiscriminate mating is not a documented feature of any human society (Buss & Schmitt, 1993). One can consider sexual preferences to be the product of psychological mechanisms that offer appropriate solutions to recurring evolutionary problems associated with reproduction (Buss & Schmitt, 1993).

These preferences are seldom consciously articulated in humans, but more often expressed as a series of emotions that impel or repel an individual toward or away from another without their conscious awareness (Buss & Schmitt, 1993). The relevant questions then become: "What problems do mating or sexual preferences solve?", and "How do they solve these problems?" However, theories of human mating often assume a single process determining who will mate with whom, and sometimes consider that male and female mating is identically motivated, precluding the formulation of sex-differentiated predictions (Buss & Schmitt, 1993).

There is considerable overlap in the recurring adaptive problems in the domains of mating faced by men and women, and thus we might expect men and women to display similar preferences in many respects (DeKay & Buss, 1992). However, there are some aspects of mating in which men and women differ and for that reason we expect to see some differences in men and women's mating strategies and sexual preferences. For example, there is a sexual asymmetry in the minimum parental investment required to produce a child (Trivers, 1972). Women bear the tasks of gestation and lactation, both of which are physically demanding and effectively preclude one from having other offspring at the same time. Conversely, men's *minimum* parental investment is the act of intercourse

and the cost of a single ejaculate. The asymmetry is present even before conception. Female sex cells are larger and more biologically/metabolically valuable than male sex cells, which are relatively small, abundant, and less costly to produce (Bateman & Bennett, 2006). One implication of this asymmetry is that men should show a relative preference for engaging in short-term mating opportunities with a variety of partners and display greater vigour in pursuing such opportunities. This is not to say that women are not interested, or do not engage, in short-term mating, or that men do not also engage in long-term mating (for a discussion of the adaptive functions of women's short-term mating and men's long-term mating, see Buss & Schmitt, 2019). In fact, humans stand-out in the degree to which they engage in long-term pair-bonding and bi-parenting (Buss & Schmitt, 2016). Instead, the claim is that men will show greater preference for casual sex and partner variety *relative* to women (e.g., Buss & Schmitt, 1993, 2019).

Pursuing a short-term mating strategy results in a number of problems that need to be overcome. As set out by Buss and Schmitt (1993), for men, these include a) the problem of partner number, b) the problem of identifying which women are sexually accessible, c) the problem of identifying which women are fertile, and d) the problem of minimizing investment in short-term partners. In responses to these problems, men evolved specific sexual preferences. For example, men report a preference for markers of sexual accessibility (such as sexual experience) in short-term mates more so than in long-term mates (Buss & Schmitt, 1993), which addresses the problem of partner accessibility.

Another important way in which men and women differ is around parental confidence. A mother can be more confident of her maternity than a father can be of his paternity. Unwitting investment in genetically unrelated offspring following a partner's infidelity carries substantial costs (in terms of time, energy, resources, and alternative mating opportunities; Kaighobadi et al., 2009). Given these significant costs, we should expect men to have evolved specific preferences to avoid partner infidelity. For example, valuing fidelity and sexual inexperience in long-term partners (however, if a man is also pursuing short-term mating, the problem of identifying sexually accessible women may outweigh these concerns; Buss & Schmitt, 2019). Indeed, a number of behavioural and psychological adaptations to mitigate sperm competition (attributable to female partner infidelity) have

been observed (see Pham & Shackelford, 2014). For example, time spent apart since last copulation is positively associated with men's perceptions of their partner's attractiveness and a desire to copulate (which would have the effect of placing one's sperm in competition with that of a potential rival; Shackelford et al., 2002) and men at greater risk of sperm competition are more likely to engage in sexual behaviors which displace rival semen that may be present in a long-term partner's reproductive tract (e.g., frequent thrusting during intercourse; Goetz et al., 2005).

In the remainder of this chapter, we review evidence for men's sexual preferences (e.g., self-reports of attitudes toward casual sex, the contents of sexual fantasies, the results of field studies). Where appropriate we remark on whether these findings support predictions derived from evolutionary theories.

### **Physical Attributes Men Find Attractive**

A considerable literature has described the importance of physical attractiveness for female mate value (Buss, 1989; Eastwick & Finkel, 2008; Singh, 1993). For women, physical attractiveness has been described as a "single ornament of mate value" (Fink & Penton-Voak, 2002, p. 158) and is thought to be a reliable and honest indicator of genetic quality (indicating the likely robustness of any offspring produced; Thornhill & Grammer, 1999). But which physical attributes do men find attractive? This section reviews some of these findings. Most men are attracted to women, with those reporting predominately same-sex attraction comprising fewer than 5% of respondents in most surveys (Bailey et al., 2016). Accordingly, this discussion focuses on the physical attributes men find attractive in women.

Fertility refers to a woman's *present* ability to reproduce (Buss & Schmitt, 1993). Compared to men, women's fertility is more sharply age-graded (Buss & Schmitt, 2016), peaking around the early to mid-20s before declining thereafter until menopause (O'Connor, Holman, & Wood, 1998). Accordingly, men can go some way to solving the problem of determining female fertility by expressing a mating preference for women who are young and healthy (evidence suggests that men do show a preference for younger partners; see Buss & Schmitt, 2019). Some physical indicators of youth and health include a small nose, small feet, hairless skin (Barber, 1995), full lips, lustrous hair,

and good muscle tone. Behavioral manifestations such as physical enthusiasm, high activity level, and a spritely gait also reliably correlate with youth and health (Buss & Barnes, 1986).

A woman's body fat distribution is a reliable correlate of her youthfulness and likely long-term health (Singh, 1993). Of special importance appears to be waist-to-hip ratio (WHR). Pubertal development triggers the expansion of the pelvic bone and distribution of fat to the gluteofemoral region (thighs and buttocks), resulting in a decreased WHR. Conversely, following menopause more adipose tissue is distributed in the abdomen, resulting in an increased WHR (Björkelund et al., 1996). Accordingly, a lower WHR signals the period during which a woman is typically fertile. Additionally, a lower WHR appears to be linked to higher levels of estrogen and progesterone, which are both associated with fecundity (Jasińska et al., 2002).

A number of studies have reported a male preference for a WHR of around 0.70 (Braun & Bryan, 2006; Henss, 2000; Singh, 1994; Singh & Young, 1995), although the universality of this finding has been challenged. For example, Marlowe and Wetsman (2001) found that men in a foraging society preferred a higher WHR. The authors explain this preference by suggesting that it has arisen in a society where there is essentially no risk of obesity. While body mass index (BMI) and WHR are positively associated, work by Singh et al. (2010) suggests that the preference for a low WHR ratio does not simply reflect a preference for a lower BMI. They tested this by showing participants before and after images of women who had undergone a cosmetic surgical procedure in which fat was removed from the abdomen and placed in the buttocks (thereby lowering the WHR without impacting BMI). The cross-cultural sample rated the post-operative pictures as more attractive.

Breasts also factor into men's perception of female attractiveness. For example, one eye-tracking study found that men were more likely to fixate on the breast and waist areas than on the face or legs, when looking at digitally manipulated photographs of a forward-facing nude woman (Dixon, Grimshawet, et al., 2011). The study also found that participants looked at the breast area for longer and more frequently than the waist area (although WHR manipulations had a stronger influence on ratings of attractiveness than did breast size manipulation). As with the gluteofemoral region, the onset of puberty causes adipose tissue to be deposited in the breasts (Dixon, Grimshawet, et al., 2011).



Much like a lower WHR, larger breasts are associated with higher estrogen and progesterone levels (Jasińska et al., 2002).

While Western cultural stereotypes posit that men prefer large breasts, the literature on breast size preference is inconsistent. For example, some studies indicate that men prefer large breasts, while others indicate a preference for medium-sized or smaller breasts (for an overview, see Dixson, Vasey et al., 2011). One cross-cultural study found that men in Brazil, the Czech Republic, and Namibia preferred medium-sized breasts, while men in Cameroon showed a preference for large breasts (Havlíček et al., 2017). Interestingly, all four samples showed a clear preference for firm, as compared to pendulous, breasts, which the authors argue may act as a marker of residual reproductive value (an individual's expected reproductive output into the future). Other factors such as breast symmetry (Dixson, Vasey et al., 2011) or areolar pigmentation (Dixson et al., 2015) may interact with size to influence men's perceptions of breast attractiveness.

While breasts are highly sexualized (at least in Western cultures), so are the buttocks. One small study of Argentinian men asked participants to indicate, along one continuous scale, the importance they place on breasts and buttocks when assessing attractiveness (with the mid-point on the scale indicating that they weighted breasts and buttocks equally when assessing attractiveness). They found a bimodal distribution, with a slight skew towards buttocks (Dagnino et al., 2012). Another study comparing Brazilian and Czech men found that while the men surveyed preferred medium to large breasts and buttocks, Brazilian men preferred larger breasts and buttocks than the Czech men (although the groups did not differ in terms of preferred WHR; Valentova et al., 2017). A women's stance may also play a role in how the buttocks are perceived. One study presented participants with computer generated images of female bodies in which the back curvature was altered (direction of the curvature was toward the belly button). It was found that increasing the arch of the back increased perceptions of attractiveness, with participants also looking longer and fixating more on the hip region of the female image (Pazhoohi et al., 2018). The authors note that this arched pose signals sexual proceptivity in other species and that it may cause the buttocks to appear fuller.

## **Attitudes Towards, and Desire for, Casual Sex and Sexual Variety**

We now turn our attention from the physical characteristics of women that men find attractive to men's attitudes toward sex. As stated above, given the asymmetry in minimum parental investment, we would expect men to pursue short-term mating more vigorously than women. As evidence of this, we may expect men to have a more permissive attitude toward, and show a greater desire for, casual sex. In response to the problem of partner number associated with adopting a short-term mating strategy, we may expect men to desire more sexual partners.

Men do have more permissive attitudes toward casual sex. Petersen and Hyde (2010) conducted a meta-analysis of over 800 studies (published between 1993 and 2007) reporting on sexual attitude and behaviors, to investigate the "gender similarities hypothesis" (which posits that "males and females are similar on most, but not all, psychological variables", Hyde, 2005, p. 581). They also analysed 7 large nationally representative datasets. Studies were analysed in terms of gender differences across 14 sexual behaviors and 16 sexual attitudes, with Cohen's  $d$  values computed to demonstrate the magnitude of these differences. Of the 16 sexual behaviors that were assessed, the largest difference that was observed was for attitudes toward engaging in casual sex, with men being more permissive than women in this regard ( $d = 0.45$ ).<sup>1</sup>

More recently, the Third National Survey of Sexual Attitudes and Lifestyles (NATSAL-3), a large probability survey conducted in Britain (data collected from 2010 to 2012), also indicated that men have more permissive attitudes toward casual sex, with 26% of men, but only 15% of women, categorizing one night stands as rarely wrong/not wrong at all (Clifton et al., n.d., Table 81). Interestingly, the magnitude of this difference was largest among people aged 16-24 years (34% of men vs. 17% of women) and smallest among people aged 45-54 years (26% of men vs. 21% of women).

Men's mating effort is more directed toward engaging in casual sex than is women's. Male Tinder users report being more motivated to use Tinder for casual sex than female Tinder users (Sevi

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<sup>1</sup> For reference, Cohen (1988) suggests that  $d$  values of 0.20, 0.50, and 0.80 can be considered to represent small, medium, and larger differences, respectively. Cohen's  $d$  values are reported where possible to give the reader a sense of the magnitude of the differences being discussed.

et al., 2018; Sumter et al., 2017). Compared to women, men more frequently report sex as a primary motivation for engaging in friends with benefits relationships (Lehmiller et al., 2011; Stein et al., 2019) and men perceive sexual activity as a goal of first dates to a greater extent (Mongeau et al., 2004).

In terms of desire for sexual variety, Schmitt (2003) investigated this topic among samples drawn from 52 nations across 10 world regions (North America, South America, Western Europe, Eastern Europe, Southern Europe, Middle East, Africa, Oceania, South/Southeast Asian, and East Asia). Participants were asked how many different sex partners they would like to have over different time intervals (e.g., in the next month, next 30 years). Across all time intervals, men desired more sexual partners than women ( $d = 0.40-0.49$ ). Additionally, compared to women, men in all world regions desired more sexual partners within the next month ( $d = 0.37-0.53$ ).<sup>2</sup> These differences held across all levels of relationship status and sexual orientation. Across all world regions, men were more likely to consent to sex after knowing someone for only a month ( $d = 0.48-1.20$ ) and men were more likely to be actively seeking short-term mates ( $d = 0.31-0.67$ ).

Hughes et al. (2021) employed an experimental methodology to investigate sex differences in desire for sexual variety. Participants were presented with a mating opportunity task in which they were shown 10 facial photographs of opposite-sex individuals and given 10 hypothetical copulation opportunities to distribute as they saw fit (e.g., they could have sex with the same person 10 times, have sex with 10 different people, have sex with 2 people 5 times, etc). Different conditions were created with different photograph compositions (e.g., in one condition all 10 photographs were of younger attractive individuals, in another there was a mix of attractive, average, and unattractive individuals). Across all conditions, men distributed their mating opportunities more widely than women did ( $d = 0.38-0.98$ ). In a second experiment, participants were presented with pairs of faces and asked which individual they would prefer to have sex with. The images presented were manipulated such that some faces were presented multiple times, while others were novel. Compared

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<sup>2</sup> It has been observed that sampling distributions in number of desired sex partners tend to be highly skewed, and that this may affect comparisons of mean level differences (as these types of comparisons tend to be influenced by outlying values; Pedersen et al., 2002). For this reason, Schmitt (2003) also carried out non-parametric tests of median level differences, with a similar pattern of findings observed.

to women, men selected a higher proportion of novel faces ( $d = 0.65$ ). Finally, participants were asked their opinion on romantic partners changing their physical appearance (e.g., dying hair). Men found romantic partners frequently altering their appearance to be more appealing ( $d = 0.37$ ).

### **Number of Sexual Partners Reported**

While men have a more positive attitude toward engaging in casual sex, does this manifest in behavior? As Buss and Schmitt (2019) point out, a behavioural preference is unlikely to evolve if it does not sometimes result in the related behavior occurring. Multiple large nationally-representative surveys has found evidence that men have (or at least report having) more sexual partners than women across their lifetimes. For example, the Second Australian Study of Health and Relationships (ASHR-2; data collected from 2012 to 2013) reports the median number of opposite-sex sexual partners over the lifetime to be 7 for men and 4 for women (Rissel et al., 2014). Additionally, a higher percentage of male than female participants reported having 10 or more opposite-sex partners (37% vs. 20.1%). Similar sex differences were observed on the NATSAL-3, where the median number of opposite-sex sexual partners over the lifetime was 6 for men and 4 for women, with 33.9% of men reporting 10 or more lifetime opposite-sex partners compared to 19.9% of women (Mercer et al., 2013). The 2006–2008 National Survey of Family Growth (NSFG; data collected in the US) reports a median 5.1 lifetime opposite-sex partners for men and 3.2 for women, with 39.5% of men reporting 7 or more lifetime partners compared to 24.3% of women (Chandra et al., 2011). Petersen and Hyde's (2010) aforementioned meta-analysis also indicates that men have more sex partners than women (smaller studies:  $d = 0.36$ ; large datasets:  $d = 0.15$ ), a greater incidence/frequency of casual sex (smaller studies:  $d = 0.38$ ; large datasets:  $d = 0.18$ ), and a greater incidence/frequency of extramarital sex (smaller studies:  $d = 0.33$ ; large datasets:  $d = 0.12$ ).

In a way, these results are perplexing. In a closed heterosexual system (putting aside, for now, instances of homosexuality) each new sex partner for a man should be a new sex partner for a woman (see Wiederman, 1997). There have been a number of hypotheses advanced to account for this logical inconsistency. For example, it has been suggested that men systemically exaggerate their reports upward, while women under-report; possibly as a response to cultural double standards around

engaging in casual sex (Hyde, 2014). It has also been suggested that men and women engage in different accounting strategies when responding to questions of this nature (e.g., men are more likely to estimate while women are more likely to precisely count) and that men are more likely to report extreme values than women (Mitchell et al., 2019). Rissel et al. (2014) note that men may be more inclined to access the services of female sex workers (an assumption which seems to be borne out by research; see below), who, in turn, are less likely to be sampled on surveys. They also posit that men may be more likely than women to engage in casual sex while abroad (and given that these are national surveys, sex partners from abroad would not be sampled).

Mitchell et al. (2019) used NATSAL-3 data to investigate some of these proposed explanations. They found that capping responses at the 99<sup>th</sup> percentile (to exclude the most extreme scores) and statistically adjusting for accounting strategy (counting vs. estimating) and attitudes toward casual sex accounted for some, but not all, of the gender difference in reported number of lifetime partners. Specifically, these adjustments took the mean difference between men's and women's reported lifetime opposite-sex partners from 7.02 to 2.63 (a two-thirds reduction).

Of course, if men show a greater preference for casual sex than women do, we may expect gay men to, on average, have more sexual partners than their heterosexual counterparts, given that gay men would not be constrained by female partners' relative disinterest in casual sex. An advantage of comparing number of sexual partners reported by gay and heterosexual men is that it eliminates possible gender differences in responding to these types of questions.<sup>3</sup> The NATSAL-3 revealed that men who have sex exclusively with women reported a median of 6 lifetime partners (with 37% of these participants reporting 10 or more partners), compared to a median of 17 lifetime partners among men who have sex with men (with 68% of these participants reporting 10 or more partners; Mercer et al., 2016). Self-identified gay men interviewed as part of the ASHR-2 had a median of 22 lifetime same-sex partners, with 69.5% of these participants reporting 10 or more same-sex partners (Grulich et al., 2014). This is compared to a median of 8 lifetime opposite-sex partners among self-identified

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<sup>3</sup> Prah et al. (2016) note that the use of convenience samples of gay men (e.g., approaching participants in gay venues) tends to overrepresent men who engage in risky sexual behaviours, therefore we have limited this discussion to nationally representative surveys.

heterosexual men, with 44.7% of these participants reporting more than 10 lifetime opposite-sex partners (Rissel et al., 2014).

### **Paying for Sex**

Compared to women, men appear to be much more likely to pay for sex, with a sizeable minority of men reporting having done so. In Australia, 16.7% of men surveyed as part of the ASHR-2 reported having ever paid for sex (2.3% had done so in the past year), compared to 0.3% of women (Richters et al., 2014). In the UK, 10.8% of men reported having ever paid for opposite-sex sex, compared to 0.1% of women (Mitchel et al., 2019), and 3.6% had done so in the past 5 years (compared to 0.1% of women; Mercer et al., 2013). Of US men surveyed as part of the NSFG, 4.3% indicated that their most recent sexual activity was transactional (defined as sex with “someone who paid me or gave me something for sex; someone who I paid or gave something to for sex”, p. 348), compared to just 0.8% of women (Herbenick et al., 2010). Carael et al. (2006) reviewed national and city-based surveys of men’s patronage of sex workers from around the world. They report the median percentage of men who exchanged sex for money in the last 12 months to be around 9-10% across all regions (although large regional variations were noted).

### **Agreeing to Have Sex with a Stranger**

Another way in which a greater interest in short-term mating might behaviorally manifest is in responses to sexual propositions from strangers. In their seminal field study, Clark and Hatfield (1989) had male and female confederates approach opposite-sex individuals on the grounds of a Florida university and ask them one of three questions:

- “Would you go out with me tonight?”
- “Will you come over to my apartment tonight?”
- “Would you go to bed with me tonight?”

Men and women were equally likely to comply with the request to go on a date (roughly half male and female participants agreed). However, very few women agreed to go back to the male confederate’s apartment (6%) and zero agreed to go bed with him. Conversely, around two-thirds of

male participants agreed to go back to the female confederate's apartment and three-quarters agreed to go to bed with her.

Hald and Høgh-Olesen (2010) conducted a replication of Clark and Hatfield's study in sexually liberal Denmark. While fewer participants overall agreed to any of the requests, a similar pattern emerged in regard to gender differences: roughly the same number of men and women (30% of men, 20% of women) agreed to the date, while significantly more men than women agreed to go to the apartment (22% of men, 8% of women) and to sex (38% of men, 2% of women), with effect size measures indicating a very large difference in relation to the sexual request. The gender difference in sexual request compliance was even larger if considering only those participants who were not currently in a relationship (59% of men, 0% of women). Interestingly, the confederates' attractiveness was predictive of consenting to the sexual request for female, but not male, participants. This is somewhat inconsistent with findings by Buss and Schmitt (1993) that men express a strong desire for attractiveness in both short- and long-term partners (in fact, this preference was stronger for short-term partners). This said, a desire for attractiveness in a partner does not necessarily mean that unattractiveness will be a "deal breaker" (i.e., all things being equal, men may desire their partners to be attractive, while still being willing to have sex with less attractive partners). Buss and Schmitt (1993) indicate that men seeking a short-term partner may relax their standards in response to the problem of partner number (p. 209). A further field study by Guéguen (2011) reports an even greater gender difference in consent to the sexual offer among French participants, when propositioned by confederates of average (60% of men, 0% of women) and high attractiveness (83% of men, 3% of women).

Schützwohl et al. (2009) asked Italian, US, and German participants to imagine how likely they would be to agree to the *go out*, *go to apartment*, and *go to bed* requests if posed by members of the opposite sex of varying levels attractiveness. Again, men were more likely to accept the sexual request than women (45.8% for men, 4.2% for women). While men's responses were not totally insensitive to the attractiveness of the asker (men were more likely to agree to all three types of requests if from a moderately or exceptionally attractive woman), women's responses were more closely related to the asker's attractiveness (especially in regard to the sexual request). No national

differences were found in terms of women's likelihood of agreeing to sex, whereas national differences were observed for men, with Italian men (61%) having higher average likelihood ratings than US (43%) or German men (29%)<sup>4</sup>; indicating a degree of cultural influence. Tappé et al. (2013) conducted a pencil-and-paper replication of Clark and Hatfield's study with Hawaiian university students, presenting them with photos of attractive individuals and asking how certain they would be that they would agree to each request type on a 10-point scale. Across three studies, men were more likely to accept the sexual request. Shackelford et al. (2004) asked participants how likely they would be to have a one-night stand with someone they had just met knowing that the person was a) not in a relationship, b) in a causal relationship, or c) married. Men were less inclined to pursue the one-night stand if the imagined partner was in a relationship (which the authors point out is consistent with the idea that men have evolved mate preferences to minimise sperm competition); however, compared to women, men were still more likely to agree across all three levels of the partner's relationship status.

While there are some minor disparities across these studies in terms of the degree to which attractiveness of the requester impacts men's responses, they point to the same conclusion: compared to women, men are more willing to agree to casual sex with a stranger. While men displaying a greater preference for casual sex is consistent with evolutionary frameworks that highlight men's proclivity for engaging in short-term mating opportunities, it should also be acknowledged that part of this disparity may reflect women being more likely to feel that they would be vulnerable to violence if they were to meet privately with a stranger for sex. Notably, Tappé et al. (2013) did ask participants to elaborate on their reasoning to refuse the sexual request. Qualitative analysis was used to divide responses into a number of themes. For women, *danger* was a commonly occurring theme (with 17 women, but only 5 men, identifying potential danger as part of their reasoning for rejecting the request). However, the themes *don't know person/need to know better* (identified by 40 women and 15 men) and *immoral* (identified by 18 women and 5 men) both occurred more frequently than *danger*.

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<sup>4</sup> These are not percentages of participants who agreed to the requests, but rather participants' self-reported likelihood of accepting the request.



## The Content of Men's Sexual Fantasies

Another method of assessing men's sexual preferences is to analyse the themes prevalent in their sexual fantasies. One advantage to assessing sexual fantasies is that fantasies are not compromised by having to meet the approval of a sexual partner, in the same way that sexual behavior is. For this reason, we might consider fantasies to be "an undiluted assay of sexual desires" (Salmon et al., 2019, p. 46).

Men sexually fantasize more frequently than women (Hicks & Leitenberg, 2001). They are also more inclined to focus on visual images when sexually fantasizing, as well as the physical characteristics of the fantasized partner (Ellis & Symons, 1990). Compared to women, men's fantasies are more sexually explicit and contain fewer emotional or romantic elements (Zurbriggen & Yost, 2004). Men's fantasies also get to sexual activity more quickly (Ellis & Symons, 1990). More men than women report fantasies about sex with someone other than their current partner, although extradyadic fantasies are common among both men and women (98% of men and 80% of women reported having them; Hicks & Leitenberg, 2001).

Lehmiller (2020) tested non-monogamy-related fantasies in a large sample of people in relationships. Participants were asked about their favourite sexual fantasy and to respond to a list of fantasies about specific types of non-monogamy. The most commonly occurring theme in men's favorite sexual fantasy was *novelty*, being present in 66.5% of men's favorite fantasy (compared to 53.6% of women's), followed by *breaking a taboo* (men: 63.5%; women: 53.6%), and *sex with multiple partners* (men: 56.4%; women: 34.3%). Consistent with the notion that men are interested in sexual variety, most men sampled had fantasized about most of the forms of non-monogamy listed, with men being more likely to fantasize about open relationships, polyamory, swinging, being cuckolded (watching one's partner have sex with someone else), and infidelity. Women were more likely to fantasize about monogamy, and no sex difference was observed for fantasies about cuckolding a partner (having sex with someone else while one's partner watches).

Binter et al. (2012) tested for sex differences in sexual fantasies directly related to "evolutionary relevant objects." A list of 10 fantasies (e.g., sex with an inexperienced partner) were

generated based on evolutionary psychological literature, with participants being asked if they engaged in these fantasies. As predicted by the authors, men were more likely to fantasize about sex with multiple opposite-sex partners (the authors reason this represents low investment but high sexual variety), sex with a younger partner (youth as an indicator of high fertility, reduces paternity uncertainty), and sex with a sexually inexperienced partner (reduces paternity uncertainty). Contrary to the authors' predictions, no sex differences were found for fantasizing about sex with a stranger, sex with a famous person, an orgy with members of both sexes, or sex with an older person. This is in contrast to an earlier study which did find that, compared to women, men were more likely to fantasize about group sex, but less likely to fantasize about sex with a famous person (Wilson, 1996). Zurbriggen and Yost (2004) similarly found that men were more likely to fantasize about sex with multiple partners.

### **The Use and Contents of Pornography**

Pornography use is common among men, with one systematic review suggesting that most men have viewed pornography at some point (>80%) and in the past year (40-70%), and that a sizable proportion of men (around half of younger men) use pornography on a weekly basis (Miller et al., 2020). While women also consume pornography, men are more likely to use pornography than women (Hald, 2006; Regnerus et al., 2016). Furthermore, women appear more likely to use pornography with a sexual partner than men, who typically consume pornography alone (Carroll et al., 2017). In fact, of all the sexual behaviours and attitudes assessed as part of Petersen and Hyde's (2010) meta-analysis, the greatest sex difference was observed for use of pornography, followed by masturbation (which is closely connected to pornography use; Miller et al., 2019). Men were found to use more pornography in both the meta-analysis of smaller studies ( $d = 0.63$ ) and large datasets ( $d = 0.46$ ). The results were similar for masturbation (smaller studies:  $d = 0.53$ ; large datasets:  $d = 0.58$ ).

Multiple authors have used an evolutionary framework to understand sex differences in pornography consumption, as well as the content of pornography. For example, Malamuth (1996) points out the "uncanny correspondence" (p. 20) between the problems associated with men's short-term mating (i.e., accessing multiple partners who are sexually available, identifying fertile partners,

and minimising partner investment) and the themes in pornography: pornography depicts youthful and attractive women (attractiveness being indicative of health and fertility), all of whom are eager to engage in casual sex with no expectation of a long-term relationship.

Malamuth (1996) bases this summary of the contents of pornography on a content analysis of pornographic films conducted by Brosius et al. (1993). More recent content analyses are consistent with this appraisal. For example, in terms of pornography depicting casual sex, a content analysis of highly rated videos taken from Pornhub.com and xVideos.com suggests that pornography depicts casual sex far more frequently than it depicts sex between partners in a long-term relationship (Rasmussen et al., 2019). Sex partners were depicted as dating in 6.8% of scenes and as married in only 1.1% of scenes. An analysis by one data journalist (Millward, 2013) reports the top three most frequently occurring female roles in pornographic film titles to be *teen*, *MILF* (discussed below), and *wife*. However, in all instances, films with wife in the title involved the wife engaging in sex with someone other than her spouse. Mainstream pornography rarely depicts condom use or discussion of safe sex (Sun et al., 2008), consistent with the extreme casualness of the sex it depicts. Finally, a recent review of content analytic studies published since 2000 found that female characters in pornography typically enthusiastically and indiscriminately engage in any, and all, sexual requests, even if they are degrading or violent (Miller & McBain, 2021).

Analyzing over 800 scenes from bestselling pornographic films, McKee et al. (2008) confirm pornography's orientation toward depicting youthful women. Over 80% of the women depicted in these scenes appeared to be aged 18-30 years (as categorized by multiple independent raters) and only 3% appeared to be aged 40 years or older. This emphasis on youthfulness was not as strong among male performers, with only 49% appearing to be aged 18-30 years. The authors also found a strong tendency toward depicting women of a slim build (65% of female performers) or average build (31%), with only 1% of women being categorized as "bulked up" or unhealthily underweight. The authors report a diversity of breast sizes among female performers, albeit with a slight tendency toward large breasts (42% of female performers), as compared to average-sized (39%) or small breasts (19%). Female performers most commonly have groomed pubic hair or have had their pubic hair removed (Vannier et al., 2014)—bodily hairlessness may also be a cue to fertility (Barber, 1995).

Malamuth (1996) suggests that female magazine centrefolds typically have a low WHR (confirmed by Singh, 1993). To our knowledge, no researchers have investigated the average WHR of female performers in contemporary Internet pornography.

The popularity of *teen* pornography as a genre indicates an orientation toward youthfulness in pornography. *Teen* frequently makes it into Pornhub's list of the top 10 most searched terms for the year (Miller & McBain, 2021). Another term to make it onto these lists is *MILF*. Both of these genres appear to be consumed more frequently by male pornography users. Hald and Štulhofer (2016) had heterosexual male and female porn users indicate the extent to which they have viewed 27 different types of pornography (e.g., threesomes, lesbian). Men and women differed in the extent to which they used 19 of 27 types of pornography (with men consuming 16 of these types of pornography more than women). The greatest differences were observed for use of *MILF/mature* ( $d = 1.46$ ), *big breast* ( $d = 1.14$ ), *Lolita/teen* ( $d = 0.98$ ), and *amateur* content ( $d = 0.87$ ).

MILF pornography is a genre which features older women (who therefore have lower reproductive value). Accordingly, the popularity of MILF pornography is somewhat surprising, especially given that there is no shortage of content featuring younger women. As stated above, Buss and Schmitt (1993) do note that when adopting a short-term mating strategy, men may relax their standards (in terms of partner fertility) in response to the problem of partner access: "Although men seeking short-term mates, other things being equal, might prefer fertile women in their early to mid 20s, a wide range of ages should be acceptable in short-term mates because of the relaxation of standards" (p. 209). It should also be noted that female performers in MILF pornography are often still relatively young—33 years of age, on average, according to one analysis (Millward, 2013).

In their discussion of MILF pornography from an evolutionary perspective, Salmon and Fisher (2018) present research to demonstrate that compared to younger women, women in their 30s report a greater willingness to engage in casual sex, and the authors suggest this may be a reason for the appeal of MILF pornography. Content analytic research comparing MILF and teen pornography found that female performers were more likely to initiate, and be in control of, sex in MILF pornography, with the opposite being true of teen pornography (Vannier et al., 2014). Therefore, the apparent popularity of MILF pornography may reflect men's interest in women who show sexual

accessibility cues (such as sexual experience) when pursuing short-term mating opportunities. By that same token, the popularity of teen pornography may reflect an interest in women who are fertile but sexually inexperienced (reducing paternity uncertainty).

It seems likely that part of men's attraction to pornography lies in the fact that it allows consumers to engage in vicarious short-term mating (possibly while simultaneously maintaining a real-world, long-term relationship), by providing near-unlimited sexual access to novel partners (albeit virtual ones) who are attractive, sexually accessible, and unconcerned with long-term commitments. In this way, pornography might be described as providing supernormal stimuli signalling short-term mating opportunities. Another possible explanation for sex differences in pornography use is that men show a greater response to visual sexual stimuli (see Rupp & Wallen, 2008).

### **Summary**

This chapter sought to summarize various sources of evidence to provide a picture of men's sexual preferences. We have seen that men's sexual preferences are congruent with predictions of evolutionary sexual psychology. For example, the physical attributes that most men find attractive in women—waist and hips, breasts, buttocks, certain facial features—all connect to youth (but also sexual maturity) and fecundity.

Evolutionary sexual psychology (e.g., Buss & Schmitt, 1993) predicts that, as a result of sex differences in minimum parental investment, men will show greater interest in short-term sexual relationships than will women. The evidence outlined in this chapter supports this prediction. This evidence includes: sex differences in self-reported attitudes toward casual sex; sex differences in self-reported motivation to date/use dating applications to secure casual sex; sex differences in desire for partner variety; sex differences in number of partners reported across the lifespan; differences between gay and heterosexual men in number of partners reported across the lifespan; men's patronage of sex workers; field studies assessing sex differences in willingness to have sex with a stranger; sex differences in the contents of common sexual fantasies (e.g., fantasies about engaging in sex with multiple partners); and sex differences in the use of pornography, coupled with a

consideration of the contents of pornography (e.g., youthful and attractive women happily engaging in casual sex).

Men's concern about a long-term partner's infidelity is predicted given men's lack of paternity certainty (Buss & Schmitt, 2019; Kaighobadi et al., 2009). The contents of pornography and men's sexual fantasies reflect a preoccupation with infidelity—of the partners of others (e.g., pornography's depictions of cheating wives) and one's own partner (e.g., sexual fantasies of being cuckolded). Themes of cuckoldry and infidelity as prominent components of sexual media may also reflect sperm competition adaptations in which men experience arousal in response to suspected infidelity/sperm competition (Pham & Shackelford, 2014). Men being more likely to report fantasies of sex with young and inexperienced partners, and their interest in teen pornography (in which female performers are less likely to take charge during sex), may reflect adaptations to reducing paternity uncertainty.

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