

Polygamous Interest in a Mononormative Nation: The Roles of Sex and Sociosexuality in
Polygamous Interest in a Heterosexual Sample From the UK

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Abstract

Polygamy is a form of “one-sided” consensually non-monogamous relationship where one person has multiple committed partners, each of whom is only involved with that one person. It was likely a reoccurring feature of ancestral mating that posed adaptive problems for our ancestors. Yet polygamy, and multi-partnering more generally, is understudied in Western cultures, raising questions about the existence of polygamous interest and whether this is calibrated adaptively to personal condition. In two studies, we examined polygamous interest in two heterosexual online samples from the UK. In Study 1 ($n = 393$), modest interest was found for polygamous relationships overall. Men were six times more open to polygyny than women, but there was little sex difference in openness to polyandry. Further analysis revealed that all forms of multi-partnering were undesirable relative to singlehood and monogamy; however, consensual multi-partner relationships were less undesirable than non-consensual ones. Sex differences were largest for polygyny and arrangements where men had agreed access to a casual partner alongside a committed one, yet these were two of the most acceptable forms of multi-partnering when men and women’s responses were combined. Sociosexuality positively predicted interest in most forms of multi-partnering. Study 2 ($n = 735$) focused on polygyny and added status-linked traits as predictors. The results of Study 1 were broadly replicated, though the status-linked traits did not predict polygynous interest specifically. Instead, sociosexuality and male intrasexual competitiveness uniquely predicted general interest in multi-partner relationships. Overall, interest in polygamy appears to emerge despite social discouragement, and sex differences in interest track the relative costs and benefits associated with it. However, there is no strong evidence that polygamous interest is uniquely calibrated to personal condition when compared to other forms of multi-partnering.

Keywords: Consensual Non-Monogamy; Polygyny; Polyandry; Sociosexuality; Sex Differences; Evolutionary Psychology

1. Introduction

Most traditional human cultures permit some form of multi-partnering (i.e., having several, concurrent intimate relationships). In anthropology, multi-partnering is typically studied as one of two types of polygamy - heterosexual marital unions between one man and several women (polygyny) or one woman and several men (polyandry). Polygyny is far more common; according to ethnographic records, approximately 85% of cultures allow it, while far fewer – allow polyandry (Starkweather & Hames, 2012; White et al., 1988). Polygamy can be considered “one-sided” in the sense that only one partner is afforded increased sexual access. In a polygynous marriage between three people, for example, one husband has sexual access to two wives, and is committed to both of them. The co-wives do not have sex with each other, nor anyone other than their husband; the relationship as a whole is closed. It is important to note that while the acceptance of polygamy might be common, it is still fairly rare within cultures which permit it. Monogamy is overwhelmingly the most common form of committed relationship.

Consensual Non-Monogamy (CNM), including polyamory, swinging, open relationships, and relationship anarchy (see Balzarini & Muise, 2020; Mogilski et al., 2022). involves the maintenance of multiple loving, sexual, or otherwise intimate relationships, and involves many combinations of sex, gender, and sexual orientation. Interest in CNM is growing in the West, with more than 20% of people in U.S. representative samples reporting CNM experience (Hauptert et al., 2017) and between 2.4% and 4% reporting current engagement (Fairbrother et al., 2019; Levine et al., 2018). Polygamy represents a specific sub-type of CNM, qualitatively different from others like polyamory due to its exclusively heterosexual, closed, and “one-sided” nature.

To what extent CNM and other multi-partner relationships have formed a long-lasting and consistent part of the human mating landscape is up for debate. However, there are good reasons to believe that polygamy specifically has been a consistent presence throughout human history. For example, among all extant hunter gatherer societies, who have a societal make-up and lifestyle similar to our ancestors, polygyny is the most consistently recorded and socially recognised form of CNM (Hill & Hurtado, 2009; Marlowe, 2003). Furthermore, both modern and ancestral patterns of sexual dimorphism in human anatomy suggests that the reproductive success of males has historically been more varied than females, a pattern consistent with polygyny practiced over long time periods (Schacht & Kramer, 2019). If polygamy has been part of the human mating landscape for some time, then it is worth asking whether this particular form of CNM left a lasting imprint on our evolved mating psychology in ways that evolutionary novel or inconsistently present forms of CNM could not.

1.1. Polygamy as an adaptive problem

Multi-partnering in general has implications for reproductive fitness as it causes greater variance in reproductive success for one or both sexes. In a polygynous society, for example, there is greater reproductive variance for men and greater variance in partner investment for women (Brown, Laland, & Mulder, 2009; Orians, 1969). Thus, if multi-partnering, in the form of polygamy, was a persistent feature of the mating landscape across evolutionary time, then it posed adaptive challenges for our ancestors to overcome. Those better able to identify when multi-partner relationships would increase reproductive success and orientate themselves towards them, would have showed increased fitness relative to those who could not. Thus, it would be surprising if the mating psychology of humans did not evolve in response to the unique benefits and challenges of multi-partnering. Indeed, in extant societies that permit polygamy, people engage with it in adaptive ways. For example, in response to wealth inequality, women actively seek out polygynous relationships with men

who have disposable income and valued assets to ensure reproductive success through access to wealth (Mek, Kelly-Hanku, Bell, Wilson, & Vallely, 2018). Comparably, men engage in polyandry adaptively to ensure the continued safety of their mates and offspring in the event of their long-term absence (Starkweather & Hames, 2012).

1.2. Polygamous desire in mononormative cultures

The bulk of work on evolved mating psychology uses samples from Western, Educated, Industrialized, Rich, and Democratic nations (Goetz, Pillsworth, Buss, & Conroy-Beam, 2019; Henrich, Heine, & Norenzayan, 2010) that have laws and norms that make monogamy the only socially-sanctioned and legally-recognised form of long-term relationship. Although having multiple relationships is possible, they are scarcely legal, though some cities in the U.S. allow domestic partnerships among more than two people (see Barry, 2020; Brown, 2021). By comparison, in the UK marrying two people is punishable by up to 7 years in prison. Despite widespread sanctions against multi-partnering, there is little research into polygynous and polyandrous desires in mononormative societies. It is important to note that research activity on CNM in these cultures more broadly has increased in recent years (Grunt-Meyer & Campbell, 2016; Cunningham et al., 2022; Rodrigues et al., 2022). However, polygamous relationships, which are “one-sided” in nature and reflect the most commonly recorded type of multi-partnering in traditional cultures, has been largely neglected.

In the same way that evolved food preferences persist in environments where fat and sugar are abundant, and emotions such as sexual jealousy persist when contraception is easily accessible, aspects of polygamous mating psychology might persist despite the social structures which prevent such arrangements (see Mogilski et al., 2020). Examining interest in multi-partnering in mononormative cultures could give insight into the degree of canalization

of this aspect of our mating psychology (Thomas et al., 2020) and provide a way of studying in which contexts multi-partnering becomes desirable. Thus, the first goal of this research is to examine whether we can find evidence of desire and interest for polygamy in a mononormative culture. To our knowledge, an examination of this specific type of CNM has not been conducted.

Research Question 1: Does polygamous interest exist in mononormative cultures?

1.3. Adaptive calibration of polygamous interest

Assuming that we find polygamous interest, a follow-up question is whether individual levels of interest are calibrated to personal and situational factors in adaptive ways. We would expect interest in polygamy to be higher among those who have more to gain from it in terms of reproductive success. For example, we should find that men, who are better able to enhance their reproductive fitness directly by increasing their number of sex partners (Moorad, Promislow, Smith, & Wade, 2011), are more open to polygyny than women. Indeed, previous research has found that men are more willing than women to engage in multi-partner relationships (Moors et al., 2015; Seal et al., 1994; St. Vil & Giles, 2022). Contextual variables, such as relationship status, might also play a role in calibrating polygamous desire. Women currently in relationships might be averse to polygyny that leads to a loss of investment from their current partner. Single women, in contrast, would have less to lose from entering into such an arrangement if opportunities to secure exclusive investment from other men were lacking. Relative standing in the mating market might also calibrate interest in polygamy. Women might be less interested in polygyny when they have greater bargaining power on the mating market, such as when they are younger, more attractive, or higher in social status (Arnocky, 2018).

An individual's mating strategy (Buss & Schmitt, 1993) might also explain variance in interest in polygamy. Sociosexual orientation is a measure of interest in short-term mating, which acts as a proxy for mating strategy. Those with a more restricted sociosexuality tend to pursue long-term relationships (e.g., cohabitation, marriage) while those with a more unrestricted sociosexuality tend to pursue short-term mating (e.g., one-night stands). Most individuals fall somewhere in the middle, reflecting the fact that people often have a mixed mating strategy and remain open to both long- and short-term relationships (Thomas & Stewart-Williams, 2018).

Overall, people with an unrestricted sociosexuality express greater interest in multi-partnering (Ka et al., 2022; Mogilski et al., 2017; 2020; Rodrigues et al., 2019). It is unclear, however, whether this would apply to polygamy. On the one hand, we might expect those who are interested in polygamous relationships specifically to have a more restricted sociosexuality given that polygamy involves enduring, socially recognised relationships with high levels of commitment, investment, co-operation, and expressions of love (e.g., Gwanfogbe, Schumm, Smith, & Furrow, 1997). On the other, there are some aspects of polygamy, such as an emphasis on sexual access with more than one partner, which might appeal to those with a more unrestricted sociosexual orientation. One of the goals of this research is to examine the association between polygamous interest and personal and situational factors to see if interest is calibrated in adaptive ways.

Research Question 2: Are there psychological and circumstantial factors that explain polygamous interest in evolutionary consistent ways?

In the following studies we attempt to address these two research questions. Study 1 is an exploratory study which assesses polygamous interest in a sample from the UK. We compare this to interest in monogamy, singlehood, and other "one-sided" forms of multi-

partnering. We also consider whether interest in polygamy is associated with demographic factors and sociosexuality. Study 2 focuses specifically on polygyny. It builds upon the first study by attempting to replicate its key findings and test newly derived hypotheses about the personal and situational factors associated with polygynous interest.

2. Study 1

2.1. Method

2.1.1. Participants

Advertised as “An investigation of preferences for alternative relationship dynamics in a UK sample”, participants currently living in the UK were recruited via social media using snowball sampling. They participated without compensation, with the exception of a small number of psychology students who received partial course credit. We aimed to recruit at least 250 participants because effect sizes begin to stabilise at this number (Schönbrodt & Perugini, 2013). The study was approved by the [REDACTED] ethics committee.

After excluding participants who had excessive missing data or did not take the study seriously (e.g., giving abnormal or random responses in text fields), we had an initial sample of 609 participants. Of these, 163 failed the knowledge tests administered during the study (see below) and were not included in the final sample. Because polygamous relationships are cross-sex multi-partner relationships (i.e., one man/woman mated to many women/men), we retained only heterosexual participants. Our final sample of 393 participants (62.8% women, $n = 246$) had an average age of 25.17 ($SD = 7.87$). Participants were typically in a committed relationship (60.3%, $n = 237$), white (87%, $n = 342$), atheist/agnostic (73.5%, $n = 289$) or Christian (21.6%, $n = 85$), and either held an undergraduate degree (51.9%, $n = 204$) or had completed some college or university courses (23.9%, $n = 94$). Most were childless (90.1%, n

= 354), UK natives (80.2%, $n = 315$)¹, who described themselves either as middle class (43.3%, $n = 170$) or lower-middle class (29.5%, $n = 116$).

2.1.2. Materials

2.1.2.1. Sociosexuality. The Sociosexual Orientation Inventory – Revised (SOI-R; Penke & Asendorpf, 2008) was used to measure sociosexuality ($\alpha = .70$).¹ This is a well-established nine-item measure of one’s willingness to have sex in the absence of commitment and measures three facets: behaviour, attitude, and desire. Examples of items include ‘Sex without love is OK’ (attitude) and ‘In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?’ (desire). Responses to each item are recorded on a nine-point scale and are summed or averaged to produce a total score.

2.1.2.2. Introduction to polygamy. To avoid technical jargon, we introduced polygamous relationships to the participants using plain language as “one-to-many” relationships. Participants were given two examples of “one-to-many” relationships, one polygynous and one polyandrous, with the descriptions making it clear that (a) the relationships were consensual, (b) the “many” were exclusive to the “one” and did not have sex with anyone else, including each other, and (c) the “one” was exclusive to the “many” and did not have sex with anyone else (see Appendix A). Rather than describing these relationships as marriage unions, we chose to introduce them as committed relationships that might include marriage. We did this to avoid conflating attitudes towards marriage with attitudes towards polygamy.

2.1.2.3. Knowledge test. We tested the participant’s understanding of “one-to-many” relationships four times throughout the questionnaire. On each occasion participants were

¹ While all of the participants were currently living in the UK, not all of them were born and raised there, raising questions about heterogeneous exposure to cultural norms about multi-partnering. In Study 1, 13.5% were born in other Western countries, 3.2% in South-Asian or Middle Eastern countries, and 3% from a mixture of other countries. Re-analysing the data with these participants excluded made no qualitative change to the findings.

¹ Cronbach alphas in the paper refer to values obtained from the present studies.

presented with four different types of relationships (e.g., promiscuity, monogamy, secret affairs) and were asked to pick out the “one-to-many” relationship. Half the time the correct answer was an example of polygyny, and half the time it was an example of polyandry. Only participants who answered all four questions correctly were included in the final dataset.

2.1.2.4. The polygamy questionnaire. A custom questionnaire was designed to probe attitudes towards polygyny and polyandry relative to other types of relationships. Participants started by indicating whether they, or someone they knew, had been in a “one-to-many” relationship. Next, they were asked “if one-to-many relationships were both legal and socially acceptable within [their] culture” would they consider being in one if (a) they were the “one” and (b) if they were one of the “many”. Response options for this question were “Yes”, “No”, or “Unsure”. The nature of these questions was such that the first part (a) captured men’s feelings about polygyny and women’s feelings about polyandry, while (b) captured the reverse. Crossed comparisons, such as comparing men’s response to (a) with women’s response to (b), allowed us to examine how the sexes felt about a given type of polygamy – in this example, polygyny.

Participants were asked about their preferences for 10 different types of relationships using the question “How appealing do you find the following relationship arrangements?” Responses were registered on a scale ranging from -3 (*Not appealing at all*) to +3 (*Very appealing*). First, participants rated monogamy and being single. Then they were asked about two types of one-sided consensual multi-partner relationships which afforded them greater sexual access specifically, “Having one committed partner and a known casual partner” (open liaison) and “Having two committed partners who are aware of (and accept) each other.”

(polygyny/polyandry). Then they were asked about the non-consensual¹ and secret equivalents of these two relationships: “Having one committed partner and a secret casual partner” (affair) and “Having two committed partners who are unaware of each other’s existence” (two-timing).

Next, participants were asked about same relationships but from the opposite perspective: sharing sexual access of one partner with someone else. Then they were asked how appealing they found the idea of “Being a known casual partner to someone in a committed relationship” (open liaison), “Being a committed partner to someone who has another committed partner (the other partner is aware of you and you accept each other)” (polygyny/polyandry), “Being a secret casual partner to someone in a committed relationship” (affair), and “Being a committed partner to someone who has another committed partner (the other partner is unaware of your existence)” (two-timing).

As before, we were able to examine specific relationships by looking at the relevant response for each sex. For example, by comparing women’s willingness to two committed partners consensually to men’s willingness to consensually share a partner with someone else, we were able to explore attitudes towards polyandry.

2.1.3. Procedure

The study was administered online through Qualtrics. Participants first gave informed consent and then completed a standard demographics form and the SOI-R. Next, they were introduced to “one-to-many” relationships and given two knowledge test questions. Then the polygamy questionnaire was completed with two knowledge test questions presented in the middle. Finally, participants finished the study with a full written debrief.

¹ Following the example of Rodrigues et al. (2021), we used the term non-consensual to indicate non-monogamous relationships which do not have mutual consent from all parties, as opposed to non-consensual, forced sexual activity such as rape.

2.2. Results

2.2.1. Prior knowledge of polygamy

Participants were generally aware of polygamous relationships; 67.9% ($n = 274$) reported being aware of these types of relationships before participating in the study. However, only 7.4% ($n = 29$) reported personally knowing someone who had been part of one, and only two participants (one of each sex) claimed to have ever been involved in such a relationship themselves.

2.2.2. Polygamous interest and sex differences

Because participants were asked about their willingness to be on both sides of a “one-to-many” relationship, we were able to rearrange these data to consider preferences for certain types of relationships. Overall, polygamous relationships were undesirable. For polygyny, 65% of the participants selected “No”, 19% selected “Yes”, and 16% selected “Unsure”. In contrast, for polyandry 75% of the participants selected “No”, 15% selected “Unsure”, and 10% selected “Yes”.

[Insert Table 1 about here]

Examining the sexes separately (Table 1) revealed a large sex difference in responses towards polygyny ($\chi^2(2, N = 392) = 57.840, p < .001$)¹, but not polyandry ($\chi^2(2, N = 391) = 4.671, p = .097$). Comparing polygyny and polyandry directly, men were 3.5 times more likely to say “Yes” to the former than the latter, while women were twice as likely to say “Yes” to polyandry than polygyny.

2.2.3. Polygamous interest relative to other mating arrangements

¹ Collapsing “Yes” and “Unsure” together yields a $\chi^2(1)$ value that corresponds to $d = 0.70$.

A 2 (sex) by 10 (relationship type) mixed ANOVA revealed main effects of sex ($F(1,381) = 18.160, p < .001, d = 1.81$) and relationship type ($F(9,3429) = 556.104, p < .001, d = 2.41$) that were qualified by a significant two-way interaction ($F(9,3429) = 16.991, p < .001, d = 1.74$).

2.2.3.1. Combined pattern. We began by examining the main effect of relationship type (Figure 1). In doing so, we were able to examine the ‘pooled’ responses of the sexes. Assuming mating arrangements require a degree of compromise between sexes, these responses might indicate the feasibility of each mating arrangement.

[Insert Figure 1 about here]

Pairwise comparisons with Bonferroni corrections¹ revealed that being in a monogamous relationship was more appealing than any other mating arrangement (all $ps < .001$), while the second most appealing mating arrangement was being single (all $ps < .001$). All other relationships had an average below 0, indicating that they were unappealing to the average participant.

Despite attracting unfavourable scores, there was enough variation in responses to multi-partner relationships to warrant further investigation. The next most appealing (or least unappealing) relationships were polygyny and both type of open liaison. These three relationships “clustered” together ($ps > .201$) and were more appealing than polyandry, and all forms of non-consensual secretive relationships ($p < .018$). The next “cluster” comprised of polyandry and affairs of both kinds ($ps = 1.000$). These relationships differed from both types of two-timing ($ps < .002$). Finally, both male and female-led two-timing were seen as equally unappealing ($p = 1.000$).

¹ p -values are inflated accordingly, and capped at $p = 1.000$.

The largest difference in appeal was between polygyny and male-led ($d = .55$) and female-led ($d = .50$) two-timing. The difference between polygyny and polyandry was small in size ($d = .18$).¹ When collapsed, the consensual multi-partner relationships were seen as more appealing than secretive non-consensual ones, $F(1,387) = 109.994$, $p < .001$, $d = 1.06$.

2.2.3.2. Sex differences. A comparison of the sex differences in appeal (Figure 2) revealed that men generally found all types of relationship more appealing than women with a few notable exceptions. Women found monogamy somewhat more appealing than men ($p < .001$, $d = 0.30$) and there was little sex difference in the appeal of singlehood, male-led two-timing, and polyandry (all $ps > .073$). For men, the largest appeal gap among multi-partner relationships was between polygyny and male-led ($d = .77$) and female-led ($d = .74$) two-timing. The difference between the preference for polygyny and polyandry was medium in size ($d = .57$). For women, the largest appeal gap among multi-partner relationships was between a female-led open liaison and male-led ($d = .42$) and female-led ($d = .49$) two-timing. The difference between the preference for polygyny and polyandry was small and only marginally significant ($p = .055$, $d = .12$).

[Insert Figure 2 about here]

2.2.3.3. Men's access to multiple women. Next, we considered the multi-partner relationships where men have one-sided access to multiple partners. For open liaison and affair relationships, women responded as if they were the casual partner. Consensual forms of these relationships showed medium-to-large sex differences in appeal. Men found the idea of polygyny ($p < .001$, $d = 0.76$) and an open liaison ($p < .001$, $d = 0.65$) more appealing than women did. Both sexes rated open liaisons as no more and no less appealing than polygyny ($ps = 1.000$).

¹ To account for the fact that there were fewer men than women in our sample, we also performed this analysis while "weighing" the contribution of men to the means. This did not change the pattern of the results.

Compared to the consensual multi-partner relationships, sex differences in appeal were smaller for affairs ($p = .014$, $d = 0.25$) and absent for two-timing ($p = .073$). For men, affairs were seen as more appealing than two-timing ($p = .003$, $d = 0.30$), while women showed no such difference ($p = .091$).

2.2.3.4. Women's access to multiple men. Sex differences were less pronounced when considering multi-partner relationships where women have one-sided access to multiple partners. Both men and women found the idea of polyandry equally unappealing ($p = .817$), and men were slightly more open to being involved in open liaisons than women were ($p = .017$, $d = 0.25$). For women, there was no difference in their ratings for polyandry and open liaisons ($p = 1.000$), while men felt that being an open liaison partner was preferential to being a polyandrous one ($p = .001$, $d = 0.28$).

When considering the non-consensual secretive relationships, a sex difference was present for two-timing, with men reporting greater preference than women ($p = .003$, $d = 0.30$). There was also a sex difference in the appeal of affairs ($p < .001$, $d = 0.45$) which was larger than for open liaisons. Finally, affairs were more appealing than two-timing for men ($p < .001$, $d = 0.28$), while women showed no such difference ($p = .114$).

Overall, by examining the combined responses of men and women, we found that the average participant favoured consensual multi-partner relationships over non-consensual ones and found polyandry slightly less appealing than polygyny and open liaisons led by both sexes. Two-timing was the least appealing type of relationship. These combined responses masked some sex differences, the largest of which occurred in relationships where men would have agreed access to multiple women, or secret casual access to a woman who was already in a relationship. In contrast, polyandry showed the smallest sex difference. A wider pattern within polygamy was that while the average woman found polygyny and polyandry

similarly unappealing, the average men preferred the former to the latter. Finally, women tended to treat multi-partner relationships in similar ways, regardless of which sex had access to multiple partners, though they found non-consensual relationships more unappealing than open consensual ones. In contrast, there was more variation present for men, who favoured the types of open relationships which gave them increased sexual access or the opportunity to be a casual partner to an already committed women.

2.2.4. Polygamous interest as a reflection of sociosexuality

As can be seen in Table 2, sociosexuality (SO) was positively associated with relationship types that did not involve explicit constraint on the ability to access additional mates. Thus, in both sexes, people with more unrestricted SO were less interested in monogamy, whereas SO showed no significant relationship with interest in sharing one's partner as part of a polygynous relationship.

[Insert Table 2 about here]

2.2.5. Demographic features and polygamous interest

On an exploratory basis, we examined what demographic characteristics were associated with polygamous interest and whether these relationships were consistent across open liaisons, affairs, and monogamy. These relationships were chosen because they might give deeper insight into how participants view polygamy. If, for example, we found that the demographic "profile" of those who prefer polygyny more closely matches the profile of someone who prefers monogamy, rather than affairs or open liaisons, this might suggest that polygyny is more closely aligned with a long-term mating strategy than a short-term one.

Our standard demographic form recorded age, relationship status (coded as single [0] vs. in a relationship [1]), number of children, education level, self-perceived attractiveness relative to peers (-3 to +3 scale), and socio-economic status. Correlations can be found in

Table 3, with the SO correlations included for ease of comparison. Men who were already in a committed relationship showed greater interest in both monogamy and polygyny. The only other significant correlation was between self-perceived attractiveness and the willingness to be an affair partner to a committed woman. More attractive men showed a greater interest in this role. Women were less inclined towards being an affair partner if they were older, more educated, and higher in social status.

Together, the results suggest that polygamous interest does not have a “unique” demographic profile relative to the other relationships. The exception was polygynous interest in men, which appeared to be more favoured by those already in a relationship. The overall pattern was clear: Sociosexuality was the strongest predictor of polygamous interest, but this was because those with a more unrestricted SO tended to show greater preference for any multi-partner relationship which might increase their sexual access.

[Insert Table 3 about here]

2.3. Discussion

The key findings from Study 1 were as follows:

1. A small proportion of participants were open to the idea of a relationship if it was legal and socially accepted. However, a greater proportion were open to polygamy when it afforded them sole access to additional partners (i.e., women showed greater openness to polyandry than polygyny and vice versa for men). Men were also much more interested in polygyny than women were in polyandry.
2. For the average person, all forms of multi-partnering were viewed less favourably than monogamy. Multi-partner relationships conducted without consent were viewed as particularly unfavourable.

3. The largest sex differences emerged for relationships where men openly had access to multiple women (an open liaison or polygyny). There was no sex difference in interest in polyandry.
4. Both sexes found polygyny as appealing as male-led open liaisons.
5. Sociosexuality was positively associated with interest in multi-partner relationships, except for when the multi-partner relationship was committed and restricted sexual access (i.e., polyandry for men, polygyny for women)
6. Men's interest in polygyny was higher when they were already in a committed relationship, while women's interest in being an affair partner was related to their age, education, and socio-economic status.

In Study 2, we tried to replicate and extend our initial findings using a larger sample. Because the largest sex differences in interest for multi-partnering were observed for polygynous relationships, we simplified the study by removing questions about polyandry and female-led open liaisons, affairs, and two-timing. This allowed us to include additional measures of status, which we might expect to correlate with polygynous interest should this preference be calibrated to one's condition and social standing among peers. We generated the following hypotheses:

H1: A moderate proportion of the sample (>25%) will be open (answer "Yes" or "Unsure") to the idea of a polygynous relationship. More men will be more open to polygyny than women.

H2: Men will rate polygyny as more appealing than women, and this sex difference will be similar in size to that of open liaisons.

H3: Consensual, open relationships will be more appealing than non-consensual, secretive ones.

H4: Sociosexuality will be positively associated with the desire for multi-partner relationships that improve sexual access, particularly for men.

H5: Men in committed relationships will be more open to polygyny than single men.

H6: Higher social status, self-perceived mate value, and intrasexual competitiveness will be associated with more interest in polygyny for men and less interest in women.

3. Study 2

3.1. Method

3.1.1. Participants

Study 2 used the same recruitment methods as Study 1, except that some participants were recruited through the website Prolific and paid at a rate of £7.50 per hour. We aimed to recruit 250 men and 250 women to obtain stable within-sex parameter estimates of the different relationships (Thomas, Stone, Bennett, Stewart-Williams, & Kennair, 2021). This study was also approved by the [REDACTED] ethics committee.

After excluding one participant who was younger than 18, we had an initial sample of 1035 participants, all of whom were living in the UK. Sixty-six of these participants failed the knowledge test (see below) and were removed. The final dataset consisted of 735 heterosexual participants (56.9% men, $n = 418$) with an average age of 33.14 ($SD = 11.47$). Most participants were in a committed relationship (65.7%, $n = 483$), white (89.3%, $n = 656$), and either held an undergraduate degree (40.4%, $n = 597$) or had completed some college or university courses (26.7%, $n = 196$). Due to a system error, we had country of birth data for only 474 participants. Of these, the majority (79.3%, $n = 376$) were UK natives. The sample was older than that of Study 1 ($t(1126) = 12.31, p < .001, d = .81$); there were no other notable differences in demographics between the studies.

3.1.2. Materials

We added several personality measures to this iteration of the study and removed some items (religion, parental status) from the demographic form. To measure social status, we used the 16-item Dominance-Prestige Scale (Cheng, Tracy, & Henrich, 2010). This measure presents participants with a series of statements, some reflecting prestige (e.g., ‘Members of my peer group respect and admire me’; $\alpha = .72$) and others dominance (e.g., ‘Others know it is better to let me have my way’; $\alpha = .70$). For each, they are asked to what extent they agree using a 1 (*Strongly Disagree*) to 7 (*Strongly Agree*) scale.

The Mate Value Scale (Edlund & Sagarin, 2014) was used to measure self-perceived mate value ($\alpha = .91$). This 4-item scale captures the participant’s view of their desirability as a partner compared to others (e.g., ‘Overall, how do you believe you compare to other people in desirability as a partner?’) using a 1 (*Extremely Undesirable*) to 7 (*Extremely Desirable*) scale.

Finally, the Scale for Intrasexual Competition (Buunk & Fisher, 2009) was used as a measure of intrasexual competitiveness ($\alpha = .90$). This 12-item measure provides participants with statements (e.g., ‘I can't stand it when I meet another man who is more attractive than I am’) and asks them how well they apply to them using a 1 (*Not at all applicable*) to 7 (*Completely applicable*) scale. Wording of the questionnaire was adjusted to reflect the sex of the participant.

3.1.2.1. Introduction to polygyny. Because this study focused on polygyny specifically, we changed the way it was introduced to the participants. We used a one-minute video which described what polygyny was from both male and female perspectives (e.g., ‘having multiple wives’ vs. ‘sharing a single husband with multiple co-wives’). Participants were told that, for the purpose of this study, the definition was expanded beyond marriage to

include long-term committed relationships ('having multiple long-term girlfriends' / 'sharing one boyfriend alongside multiple co-girlfriends'). Finally, it was made clear that polygynous relationships have rules which mean that women are committed to one man and have sex with no-one else but him, and that the man does not have sex with any women outside of the relationship (see Appendix B).

3.1.2.2. Knowledge test and polygyny questionnaire. Only one knowledge test question was used during this study. It was presented immediately after the video and the "correct" answer was an example of polygyny. Mention of multi-partner relationships where women had access to multiple men were removed from the polygyny questionnaire, and the term "one-to-many" was replaced with polygyny-specific terminology. For example, instead of asking how they would feel being one of the "many" in a one-to-many relationship, women were instead asked how they would feel sharing a husband or boyfriend with another woman in a polygynous relationship. Otherwise, the questions remained the same.

3.1.3. Procedure

The study procedure was the same as that for Study 1, other than the following changes: (1) There was only one knowledge test question presented immediately after the description of polygynous relationships; (2) participants completed the questionnaire from only one perspective: having two partners if they were a man, and sharing a partner with another woman if they were a woman; (3) the SOI-R was moved to the end of the questionnaire with the other personality measures; and (4) the personality measures were presented in a random order.

3.2. Results

3.2.1. Prior knowledge of polygyny

A large majority of the sample (91.8%; $n = 675$) were aware of polygyny before the study – a larger majority than were aware of “one-to-many” relationships in Study 1. The proportion of participants who personally knew someone who had been in a polygynous relationship, however, remained low (4.5%; $n = 33$), and no participants claimed to have ever been in a polygynous relationship.

3.2.2. Polygynous interest and sex differences

When asked explicitly whether they would consider being part of a polygynous relationship, the most frequent response was “No” (61.9%). This was comparable to the proportion who said “No” to polygyny in Study 1 (65.1%). The sex difference was also replicated ($\chi^2(2, N = 735) = 148.168, p < .001$) and yielded a slightly larger effect size ($d = 0.96$, when combining “Yes” and “Unsure”). This difference reflects the fact that men were almost eight times more likely to respond “Yes” and twice as likely to respond “Unsure” than women were (Table 4). These results support H1, which predicted that at least 25% of the participants would answer “Yes” or “Unsure” to the idea of a polygynous relationship and men would be more open to polygyny than women.

[Insert Table 4 about here]

3.2.3. Polygynous interest relative to other mating arrangements

A 2 (sex) by 6 (relationship type) mixed ANOVA revealed significant main effects of sex ($F(1,733) = 99.288, p < .001, d = 0.74$), relationship type ($F(5,3665) = 1264.323, p < .001, d = 2.63$), and a two-way interaction ($F(5,3665) = 94.492, p < .001, d = .72$). Effect sizes for the interaction were larger than in Study 1, likely due to the removed relationships.

3.2.3.1. Combined pattern. As with Study 1, the average participant held strong preferences for monogamy, was somewhat ambivalent about singlehood, and was disinterested in multi-partner relationships (Figure 3). Once again, no difference was found

between the appeal of open polygyny and open liaisons ($p = .883$), which were both more appealing than non-consensual, secret relationships. Two-timing was the least appealing option. All differences were $p < .001$ using Bonferroni corrected p -values. The largest appeal gap between multi-partner relationships was between polygyny and two-timing ($d = 0.67$). As before, consensual multi-partner relationships were seen as more appealing than non-consensual ones, $F(1,734) = 274.131$, $p < .001$, $d = 1.22$, supporting H3.

[Insert Figure 3 about here]

3.2.3.2. Sex differences. A comparison of the sex differences (Figure 4) for each relationship revealed that women found monogamy and singlehood more appealing than men did ($ps < .001$), and that men in turn found multi-partner relationships less unappealing than women did ($ps < .001$). This included polygyny, as predicted in H2. Also, in line with H2, the largest sex differences involved consensual multi-partner relationships (polygyny $d = 1.00$; open liaisons $d = 0.98$). The sex differences were smaller when the relationships were non-consensual and secret (two-timing $d = 0.48$; affairs $d = 0.57$).

[Insert Figure 4 about here]

3.2.3.3. Men's preferences. Men again showed a clear preference for monogamy over all other types of relationship ($p < .001$), and found the idea of polygyny and open liaisons equally appealing ($p = .341$). However, unlike Study 1, the latter two categories also clustered with singlehood ($ps > .805$). Non-consensual, secret relationships were the least desirable, with two-timing being slightly less desirable than affairs ($p < .001$). The largest appeal gap for the non-monogamous relationships was that between polygyny and two-timing ($d = .90$; $p < .001$).

3.2.3.4. Women's preferences. Women showed a clear preference for monogamy over singlehood ($p < .001$), and both of these options were preferred over all other

relationship types ($p < .001$). Differences between the remaining relationships were small. Polygyny, open liaisons, and affairs were equally unappealing to women ($ps > .052$) with only two-timing sitting outside of this “cluster” ($ps < .001$). The largest appeal gap among multi-partner relationships was between polygyny and two-timing ($d = .40$; $p < .001$).

In summary, we replicated the finding that, collapsing across the sexes, consensual relationships were more favoured than non-consensual secret ones. Two-timing continued to be the least appealing type of relationship. The largest sex differences were replicated and occurred in relationships where men would have consensual access to multiple women. Finally, the average woman considered all multi-partner relationships equally unappealing, whereas the average man considered polygyny and open liaisons only slightly unappealing – about the same as being single.

3.2.4. Predictors of polygynous interest

As can be seen in Table 5, correlations between SO and relationship type for each sex produced results broadly consistent with those found in Study 1 and generally supportive of H4. In both sexes, SO was positively associated with interest in all relationship types apart from monogamy. In contrast to Study 1, SO significantly correlated with women’s polygynous interest, though this was the weakest correlation between SO and interest in multi-partnering and of a similar strength to the effect found in Study 1 ($r = .14$ vs $.12$).

Three of the demographic variables from Study 1 (age, relationship status, and education) appeared in Study 2, and we found some differences between the studies (Table 6). Age continued to be uncorrelated with interest in any of the relationship types in men. In women, the weak negative association between age and male-led affairs was no longer present; instead, it was monogamy which had a negative association with age, suggesting that younger women were more inclined towards monogamy than older women. However, as

noted above Study 2 differed from Study 1 in age. The positive association between relationship status and desire for monogamy was replicated in men, but was a bit weaker than in Study 1, and this same relationship was now also found in women. The positive correlation between relationship status and polygynous desires in men not only failed to replicate, but we instead found a significant negative association. Thus, we found no evidence for H5 in Study 2. Finally, the negative relationship between education level on openness to secret affairs in women did not replicate.

Of the new variables introduced, mate value was unrelated to desire for any of the relationships. In men, dominance and intrasexual competitiveness positively correlated with interest in all types of multi-partnering. Those with greater intrasexual competitiveness were less interested in monogamy. Prestige, in contrast, was positively associated with only monogamous interest. The only significant correlation found for women was a weak association ($r = .13$) between intrasexual competitiveness and being an affair partner.

To explore the unique contributions of social status, sociosexuality, and intrasexual competitiveness to polygynous interest, we ran a multiple regression model (Table 7) using all four variables. Only SO and intrasexual competitiveness were unique predictors of interest in multi-partnering. Because relationship status was a significant correlate in both Study 1 and Study 2 (albeit in different directions), we ran a second model including all two-way interactions with relationship status to rule out moderation effects as well as the two-way interaction between SO and intrasexual competitiveness. None of these interactions was significant. Finally, we examined whether the cleaned model (intrasexual competitiveness and SO only) made similar predictions for open liaisons and affairs. The models were similar. Together, the results suggest that intrasexual competitiveness and sociosexuality make unique contributions to men's desire for multi-partner relationships, of which polygyny is one such

arrangement. Thus, we found some support for H6, though for multi-partnering more broadly rather than for polygyny specifically.

[Insert Tables 5, 6 & 7 about here]

4. General Discussion

In our first study, we found that a sizeable minority of our sample (approximately 30%) were not against the idea of participating in a consensual and legally permitted polygamous relationship. These relationships were seen as unappealing next to monogamy and singlehood, but the extent of this feeling depended on participant sex and whether the relationship in question gave men (polygyny) or women (polyandry) sexual access to more than one partner. Further investigation provided little evidence that people with an interest in polygamy had a distinct “profile” of traits. Sociosexuality was a key predictor of interest in almost all multi-partner relationships and the only characteristic that uniquely predicted polygamous interest was relationship status, which weakly predicted men’s interest. A follow-up study, focusing on polygyny alone, replicated most of the key findings from Study 1, though relationship status was no longer a positive predictor of male interest in polygyny. Of the new variables introduced as potential predictors, only men’s intrasexual competitiveness predicted variance over and above sociosexuality. As with the previous study, however, these traits also predicted the appeal of multi-partnering more widely.

4.1. Polygamous interest in a UK sample

Perhaps the clearest, yet least surprising (see Moors & Ramos, 2022) finding across the two studies was that singlehood and monogamy were seen as much more desirable than multi-partner relationships. This pattern, common to both sexes, likely reflects the combination of the cultural norms of the UK (where plural marriage is illegal and consensual multi-partner relationships are taboo; Shah, 2003) and a human mating psychology evolved

in the context of pair-bonding (Stewart-Williams & Thomas, 2013). As previously noted, even among cultures which permit polygamy, monogamous relationships are the dominant strategy, likely because of the historical benefits afforded by pair-bonding (including bi-parental care). At the same time, a large minority of our participants were open to the idea of polygamous relationships despite cultural forces pushing against it. This suggests that such interests might be part of an evolved mating psychology rather than a modern cultural product (Stewart-Williams, 2018). Whether participants would ever follow through on these hypothetical preferences is undetermined, but polygamous relationships are at least not universally repulsive.

The sex differences uncovered in our research were consistent with Parental Investment Theory (Trivers, 1972). Men were much more open to a relationship which allows the opportunity to impregnate multiple women (polygyny) than women were, and they were less open to a relationship which might act as a barrier to fitness (polyandry). For women, this pattern was reversed but the difference was much smaller (openness) or non-significant (appeal) depending on the measure used. Unlike men, increased sexual access does not allow women to have more children (though it might increase offspring variability; see Scelza, 2022). As such, the small preference for polyandry over polygyny in women likely reflects differences in opportunities to enhance fitness through partner investment. A woman might share the resources of her partner with other women in a polygynous relationship, whereas she would potentially have access to the resources of two or more men in a polyandrous one. However, the complications of maintaining harmony within a polyandrous relationship likely negates such benefits (Gurung, 2012).

Collapsing interest across the sexes revealed that polygyny was one of the most acceptable forms of multi-partnering in the studies. While women disliked polygyny, men's greater interest in it led to a joint appraisal more favourable than the other multi-partner

relationships, including polyandry. These findings are consistent with the extant literature on polygyny which see it as a compromise in the mating interests of men and women (Al-Krenawi, Graham, & Ben-Shimol-Jacobsen, 2006; Marlowe, 2000; Mulder, 1990).

4.2. A specific polygamous psychology

Polygamous relationships have the hallmarks of a long-term mating arrangement and so one might expect the psychological “profile” of those who favour polygamy to be more similar to those who favour committed enduring relationships over uncommitted promiscuous ones. We found little evidence of this. Not only did interest in monogamy negatively correlate with polygamous interest, but interest in polygamy tended to correlate positively with other forms of multi-partnering that included an element of casual sex. For example, the way men and women evaluated polygyny seemed very similar to a male-led open liaison - interest in these two types of relationship was highly correlated ($r = .738$ and $.801$ in Study 1 and 2, respectively) and had similar associations with demographic factors and personality traits. Thus, despite the participants having a good understanding of polygyny, as reflected in the knowledge tests, they appeared to approach these two types of relationships the same way despite one involving commitment to two (or more) women, and the other involving casual sex alongside a committed partner. Similar, though weaker, patterns were found for polyandry.

In addition, sociosexuality was a key predictor of polygamous interest in both studies, but also multi-partnering more broadly. That is, those who scored particularly high on this measure were more open to any form of multi-partnering, with the possible exception of relationships which would allow for no greater sexual access than monogamy: polyandry in the case of men and polygyny in the case of women. This demonstrates that the pre-established relationship between SO and other forms of CNM (Fleckenstein & Cox, 2015; Ka

et al., 2022; Rodrigues et al., 2016; Rodrigues et al., 2019) extends to the more “one-sided” heterosexual sub-types of polygyny and polyandry.

Aside from sociosexuality, the only other consistent personality variables that predicted interest in the multi-partner relationships were intrasexual competitiveness and social status in the form of dominance. Thus, men who felt competitive towards other men or showed a tendency to try to control others and have authority over them showed more interest in non-monogamy than those who did not. When entered into a regression together, dominance explained no unique variance over and above intra-sexual competition, reflecting their collinearity. The same pattern was not found for another sub-facet of status, namely prestige. Those held high in esteem by others, rather than being drawn towards multi-partner mating, valued monogamy. While these findings give little evidence that polygynous interest is uniquely calibrated to personal condition, it may nonetheless be adjusted as part of a wider calibration of interest in multi-partner relationships among men; presumably because men with higher social status are more likely to be able to attract and maintain sexual relationships outside of a primary pair-bond. At the very least, they suggest that the different pathways to social status in men might have qualitatively different associations with mating strategy (Cheng, Tracy, & Henrich, 2010). Finally, while relationship status in men was a unique predictor of polygynous interest in both studies, the effects were in opposite directions. Future research should consider inclusion of contextual variables, such as relationship length, satisfaction, and commitment, as potential moderators that might help to explain this inconsistency.

Overall, we found little evidence that our participants from a polygamy-prohibiting country treated polygamous relationships as any different to other types of multi-partnering. It is likely that participants simply approached them as another way to realise the desire for sexual variety. It might have also been the case that the participants’ responses to questions

about polygamy were informed by current cultural changes in the acceptance of polyamory. Thus, an interesting avenue for future research would be to try to examine, qualitatively, whether polygamy and polyamory are seen as distinctly different forms of multi-partner relationships within mononormative samples.

4.3. Consensual and open vs non-consensual and secretive relationships

A recurring finding was that non-consensual, secretive relationships, regardless of which sex benefitted from increased sexual access, were much less desirable than open and consensual ones. Historically, hidden relationships, including affairs, while potentially providing reproductive or material benefits had substantial costs associated with them, specifically threats to reputation, potential for harm from jilted lovers and their kin, and loss of invested time and resources (see Mogilski et al., 2023). Such consequences likely shaped modern moral systems, leading to aversive reactions to secretive relationships. Uniquely, hidden polygamy presents logistical problems not associated with *ad hoc* cases of infidelity which raises the risk of being caught. Removing these barriers by making these types of relationships known, recognised, and accepted circumvents some of these costs likely increasing their appeal. Yet, removing these barriers affects the sexes differently (e.g., risk of cuckoldry for men; risk of partner divestment for women), and thus, strategies for opening a relationship may more effectively preserve in-pair relationship quality when they address the reproductive challenges that men and women uniquely face while multi-partnering.

4.4. Strengths and limitations

Strengths of this study include its two-part design which enabled us to replicate our exploratory findings with a respectable sample size. From a theoretical perspective, this is the first study to examine polygamous interest, as well as the characteristics of those who hold such interest, in the UK. While opportunity samples tend to produce similar results to

representative ones (Coppock, Leeper, & Mullinix, 2018), it is worth noting that our samples contained a greater proportion of agnostics/atheists than in the UK population (74% in Study 1 vs 37% in the most recent England and Wales Census). Thus, it is possible that having a larger proportion of religious participants would affect the findings, though precisely how is unclear; attitudes towards polygyny vary even within the same broad denomination (e.g., Latter-day Saints vs. Catholicism).

The use of samples from just one country limits our ability to answer deeper questions about the impact of mononormative culture on multi-partner mating psychology. For example, similar interests in polygyny and open liaisons in our UK sample might signify the inability of participants from this country to tease these two types of relationships apart in the same way as someone from a polygamous culture could due to lack of exposure. An interesting future direction for this work would be to replicate this study with a comparison group of men and women from a culture where polygamy is legal and socially acceptable to see if qualitatively different profiles emerge. Another limitation of the study is that we did not include less one-sided relationships, such as polyamory (Balzarini et al., 2017), which may have provided additional useful points of comparison. Similarly, while polygamy by definition tends to occur in heterosexual orientated triads, the heterosexual focus of this research prevented us from establishing if openness and interest in equivalent mixed- or single-sex triads (e.g., a woman who has exclusive “one-sided” access to a committed man and women) exists.

4.5. Conclusion

In the UK sample, a sizeable minority of individuals showed interest in polygamous relationships. The greatest interest came from men, who liked the idea of polygyny far more than women. In contrast, both sexes had similar, very low levels of interest in polyandry. A

follow-up study confirmed our initial findings that there was little in the way of a unique profile of traits associated with polygynous interest. The only consistent predictor of polygynous interest was sociosexuality, which also predicted interest in other types of multi-partner relationships that involved sexual access to more than one partner.

Data Availability

The data associated with this research are available at [link].

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Table 1. Openness to being part of a polygynous or polyandrous relationship. Men and women are displayed separately. Frequencies are given as percentages.

	Polygynous relationship			Polyandrous relationship		
	Yes	No	Unsure	Yes	No	Unsure
Men	32.2	49.3	18.5	9.0	80.0	11.0
Women	5.3	80.9	13.8	10.6	70.7	18.7
Total	18.8	65.1	16.2	9.8	75.4	14.9

Table 2. Correlations between sociosexuality (SO) and the appeal of different relationship types. Correlations below the diagonal are for men while those above the diagonal are for women.

Measure	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. SO		.249**	-.183**	.304**	.290**	.301**	.295**	.127*	.184**	.117	.157*
2. Singlehood	.270**		-.285**	.126*	.122	.235**	.214**	.131*	.157*	.165**	.148*
3. Monogamy	-.368**	-.328**		-.134*	-.244**	-.191**	-.301**	-.152*	-.232**	-.229**	-.275**
4. Affair (M)	.345**	.131	-.128		.396**	.557**	.396**	.603**	.286**	.449**	.288**
5. Affair (F)	.498**	.231**	-.185*	.528**		.211**	.506**	.224**	.628**	.154*	.345**
6. Open liaison (M)	.400**	.077	-.226**	.401**	.339**		.512**	.633**	.242**	.738**	.503**
7. Open liaison (F)	.337**	.041	-.129	.264**	.558**	.595**		.356**	.399**	.500**	.775**
8. Two-timing (M)	.302**	.134	-.103	.649**	.515**	.337**	.303**		.306**	.673**	.381**
9. Two-timing (F)	.185*	-.012	-.202*	.169*	.367**	.282**	.353**	.227**		.211**	.419**
10. Polygyny	.337**	.096	-.182*	.308**	.341**	.801**	.517**	.392**	.307**		.555**
11. Polyandry	.073	-.127	-.197*	.035	.126	.317**	.450**	.078	.636**	.374**	

Note: * $p < .05$, ** $p < .01$. M = Male-led, F = Female-led.

Table 3. Results of an exploratory analysis correlating interest in monogamy, affairs, open liaisons, and polygamy with different demographic statistics. Sociosexuality (SO) is included for comparison.

	Male access				Female access		
	Monogamy	Affair (M)	Open Liaison (M)	Polygyny	Affair (F)	Open Liaison (F)	Polyandry
Men							
Age	.035	-.081	.018	.026	-.012	.032	.107
Relationship Status	.294**	-.060	.107	.199*	-.034	-.026	.047
# of Children	.065	-.096	.057	.036	-.014	.088	.115
Education	-.059	.009	.081	.032	-.010	-.009	.035
Attractiveness	-.093	.098	.062	.098	.164*	.011	.096
SES	-.033	-.026	.139	.053	.012	.010	.023
SO	-.368*	.345**	.400**	.337**	.498**	.337**	.073
Women							
Age	-.099	-.143*	-.104	-.014	-.106	-.073	.008

Relationship Status	.086	-.080	-.113	-.090	-.062	-.053	-.015
# of Children	-.070	-.048	-.035	.030	-.067	-.040	.024
Education	.039	-.137*	-.089	.030	-.044	-.108	-.009
Attractiveness	-.053	-.062	-.025	.007	.053	.101	.101
SES	.040	-.127*	-.101	-.120	-.080	-.065	-.053
SO	-.183**	.304**	.301**	.117	.290**	.295**	.157*

Note: * $p < .05$, ** $p < .01$. Relationship was coded as 0 = single and 1 = in a committed relationship. M = Male-led, F = Female-led,

SES = Socioeconomic status.

Table 4. Openness to a polygynous relationship split by sex. Frequencies are given as percentages.

	Polygynous relationship		
	Yes	No	Unsure
Men	39.2	43.5	17.2
Women	5.0	86.1	8.8
Total	24.5	61.9	13.6

Table 5. Correlations between sociosexuality (SO) and the appeal of different relationships. Correlations below the diagonal are for men while those above the diagonal are for women.

Measure	1.	2.	3.	4.	5.	6.	7.
1. SO		.297**	-.195**	.244**	.240**	.141*	.208**
2. Singlehood	.153**		-.231**	.112*	.188**	.105	.163**
3. Monogamy	-.244**	-.305**		-.332**	-.290**	-.317**	-.304**
4. Affair (M)	.395**	.128**	-.294**		.586**	.587**	.340**
5. Open liaison (M)	.451**	.107*	-.196**	.548**		.595**	.654**
6. Two-timing (M)	.311**	.097*	-.248**	.706**	.442**		
7. Polygyny	.447**	.061	-.232**	.428**	.770**	.467**	

Note: * $p < .05$, ** $p < .01$. M = Male-led.

Table 6. Correlations between interest in monogamy, affairs, open liaisons and polygyny with demographic statistics, social status, mate value and sociosexuality (SO).

	Monogamy	Affair (M)	Open Liaison (M)	Polygyny
Men				
Age	-.041	.073	-.013	.057
Relationship Status	.100*	.050	-.083	-.116*
Education	-.002	-.022	-.002	-.043
Prestige	.131**	.008	.011	-.026
Dominance	-.088	.281**	.188**	.176**
Mate Value	.081	.056	.058	-.034
Intrasexual competition	-.140**	.326**	.222**	.214**
SO	-.244**	.395**	.451**	.447**
Women				

Age	-.190**	.045	.023	.101
Relationship	.149**	-.022	-.039	.028
Education	-.059	.009	.012	.082
Prestige	.036	-.004	-.027	.062
Dominance	-.003	.056	.090	-.036
Mate Value	.028	-.056	-.060	-.029
Intrasexual competition	.027	.130*	.066	.025
SO	-.195**	.244**	.240**	.208**

Note: * $p < .05$, ** $p < .01$. Relationship was coded as 0 = single and 1 = in a committed relationship. M = Male-led.

Table 7. Initial (1) and cleaned (2) regression models predicting polygynous interest in men. The same model is then applied to open liaisons (3) and affairs (4).

Measure	1 - Polygyny		2 - Polygyny (clean)		3 - Open Liaison (M)		4 – Affair (M)	
	B	SE	B	SE	B	SE	B	SE
SO	.057**	.006	.060**	.006	.058**	.006	.041**	.005
Intrasexual competition	.019**	.007	.021**	.007	.021**	.007	.034**	.006
Relationship status	-.313	.187						
Dominance	.013	.014						
Model	$F(4,417) = 29.753^*$		$F(2,417) = 57.596^*$		$F(2,417) = 59.567^*$		$F(2,417) = 59.262^*$	
Adj. R^2	0.216		0.213		0.219		0.218	

Note: Relationship status coded as 0 = single and 1 = in a committed relationship. SO = Sociosexual

Orientation, M = Male-led. * $p < .05$, ** $p < .01$

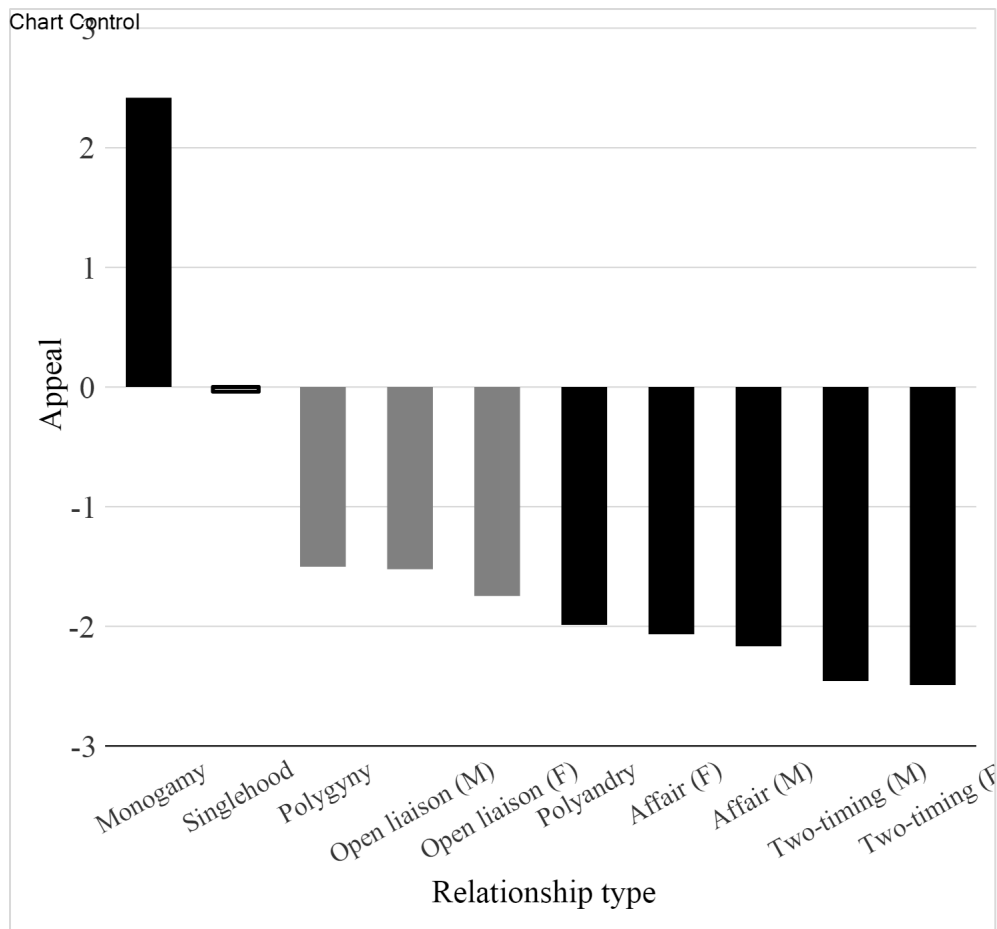


Figure 1. The appeal of different types of relationships in Study 1. Error bars represent 95% confidence intervals. Shared shading indicates a lack of difference. M = Male-led, F = Female-led.

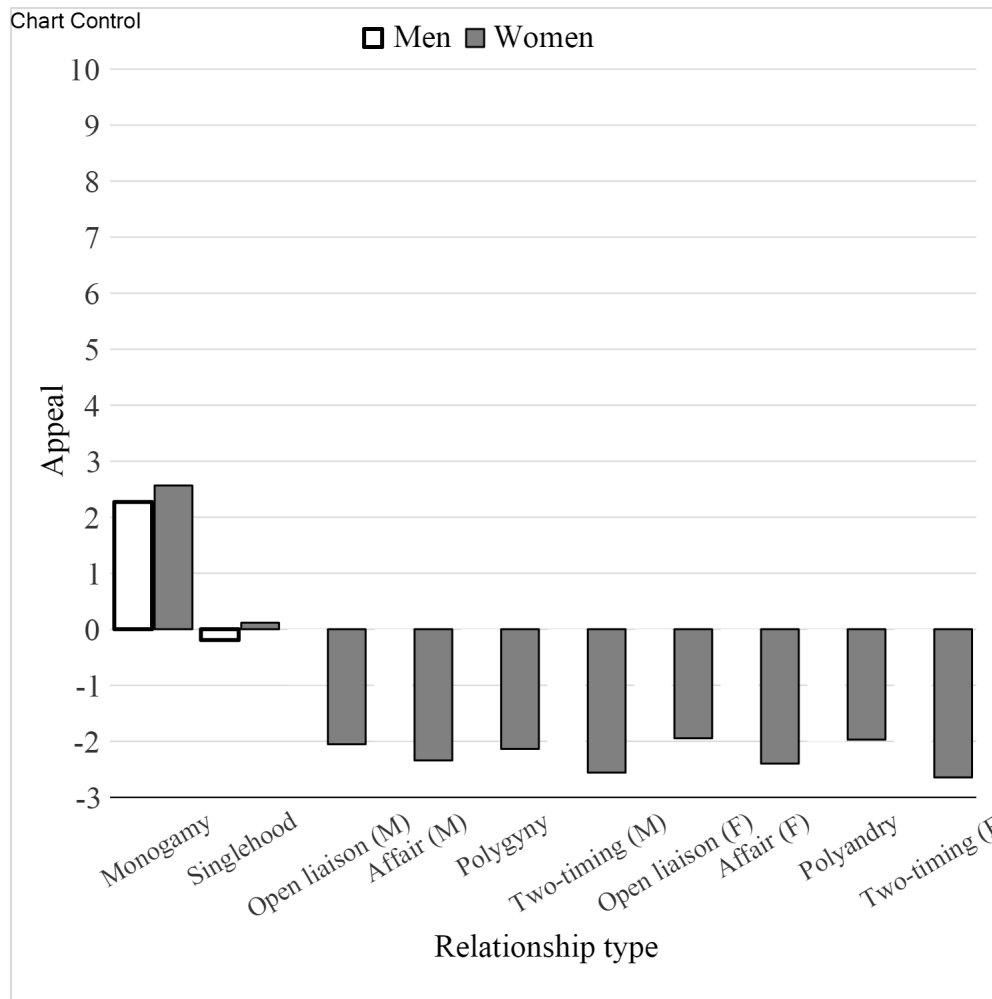


Figure 2. Appeal of different types of relationships split by sex. Relationships within the blue (solid) box are those where men have access to more than one woman, while those in the red box (dashed) are where women have access to more than one man. Error bars represent 95% confidence intervals. M = Male-led, F = Female-led.

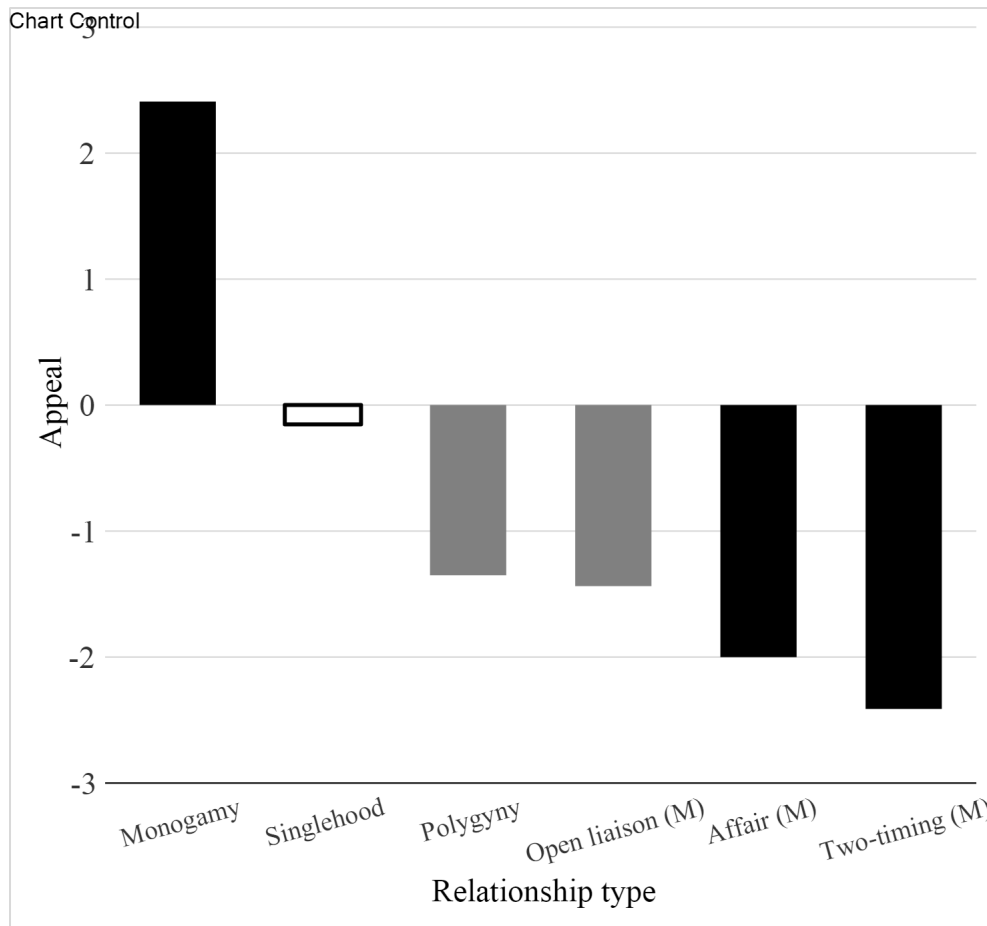


Figure 3. The appeal of different types of relationships in Study 2. Error bars represent 95% confidence intervals. Shared shading indicates a lack of difference. M = Male-led.

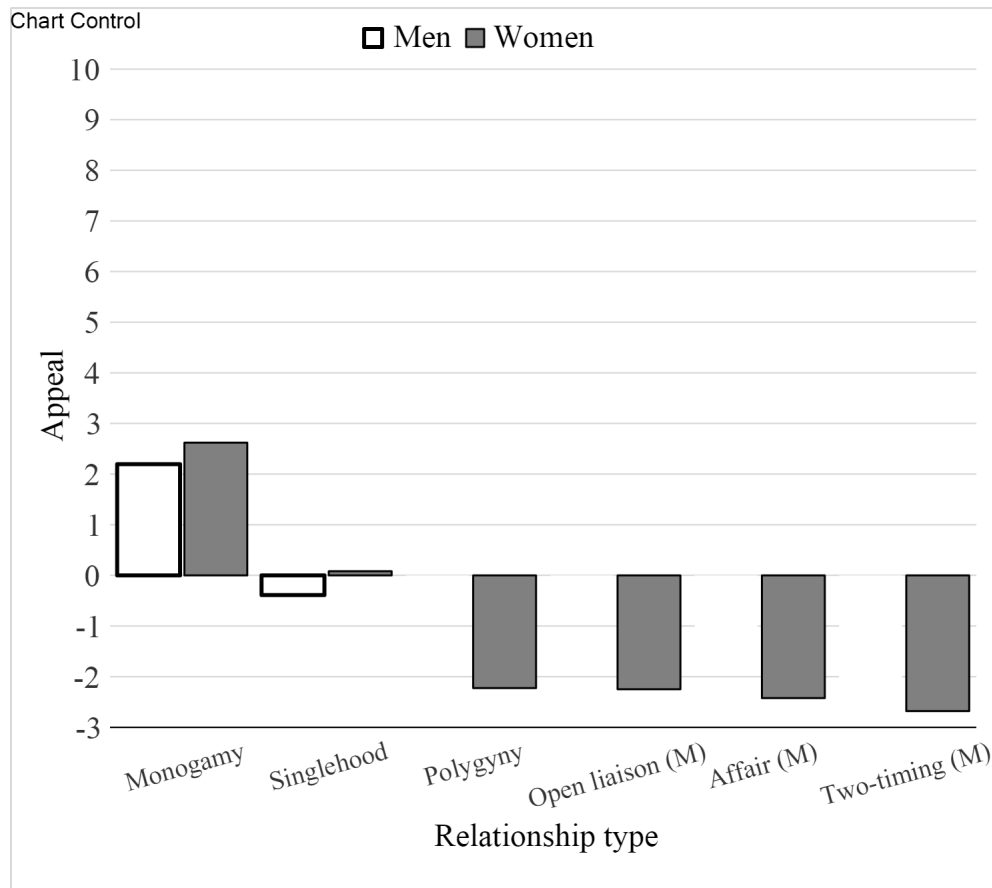


Figure 4. Appeal of different types of relationships split by sex. Error bars represent 95% confidence intervals. M = Male-led.

Appendix A: The explanation of polygamy given to participants in Study 1

In this section of the questionnaire, we are interested in your thoughts and feelings towards long-term relationships. Individuals in long-term relationships are committed to each other. They are likely to love each other, live together, become married, and raise children together.

Most long-term relationships are between two people – both partners agree to be faithful to one another exclusively. This is called a “one-to-one” relationship.

However, in some cultures, long-term relationships (including marriage) can include more than two individuals. For the purpose of this questionnaire, we will call this type of relationship “one-to-many.”

For example, a man (one) may have a relationship with (or be married to) several women at the same time. These women (many) share him as a partner and they are emotionally and sexually faithful to him. In return, he remains faithful to the women as a group and does not have sex with anyone outside of the relationship.

In another example, a woman (one) may have a relationship with (or be married to) several men. Again, these men (many) would share her as a partner and be emotionally and sexually faithful to her. She would remain faithful to the men as a group and not have sex with anyone outside of the relationship.

It is important to note that everyone in a one-to-many relationship is aware of each other’s existence. There is no deception and everyone consents to the arrangement. This type of

relationship is not just about sex. The one may love and care for all of the many. The relationship between each of the many, however, is purely platonic.

In this study, we want to know how your thoughts and feelings towards one-to-many relationships.

Appendix B: Transcript of the video explaining polygyny to participants in Study 2

While polygyny is not practiced in many Western cultures, it is still common in some Eastern ones.

As someone who comes from a culture that doesn't allow polygyny, we would like your views about this type of relationship. So, if you're male, we're interested how you would feel about the prospect of having multiple wives. If you're female, we're interested how you feel about the prospect of sharing a single husband with multiple co-wives.

If you're not a big fan of marriage, then we'd still like you to consider how you would feel being part of a committed long-term polygynous relationship instead. This would mean having multiple long-term girlfriends (if your male), or sharing a long-term boyfriend with other girlfriends (if you're female).

A polygynous relationship has rules, and isn't simply "sleeping around" or having an "open relationship". Within a polygynous relationship, the man would be sexually and emotionally faithful to his small group of partners and would not have sex outside of the group. Equally, the women who share him would remain emotionally and sexually faithful to him and him alone. Co-wives or co-girlfriends do not have sexual relationships with each other; however, they may be close friends.