



## Jealousy: Evidence of strong sex differences using both forced choice and continuous measure paradigms



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### ABSTRACT

Despite some controversy about sex differences in jealousy, data largely support that sex differences studied with the forced choice (FC) paradigm are robust: Men, relative to women, report greater jealousy in response to sexual infidelity than in response to emotional infidelity. Corresponding sex differences for continuous measures of jealousy typically have been less robust in the literature. A large sample of Norwegian students ( $N = 1074$ ) randomly responded to either FC or continuous measure questionnaires covering four infidelity scenarios. Large, comparable, theoretically-predicted sex differences were evident for both FC and continuous measures. Relationship status, infidelity experiences, and question order manipulation (activation) did not consistently influence the sex differences for either measure, nor did individual differences in sociosexual orientation or relationship commitment. These large sex differences are especially noteworthy as they emerge from a highly egalitarian nation with high paternal investment expectancy, and because they contradict social role theories that predict a diminution of psychological sex differences as gender economic equality increases.

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### 1. Introduction

Evolutionary psychologists have hypothesized that romantic jealousy is an evolved adaptation designed to protect the bond between mates, fend off mate poachers, and retain access to reproductively-relevant resources possessed by the mate (Buss, 2013; Buss, Larsen, Westen, & Semmelroth, 1992; Daly, Wilson, & Weghorst, 1982; Maner & Shackelford, 2008). Jealous emotions are activated by cues to a partner's infidelity or defection, such as time and resource investment in other relationships. If these threats did not elicit jealous emotions in men and women (i.e., indifference) the reproductive costs would be high. Thus, jealousy is considered to be a basic and necessary emotion for reaping the value inherent in high-investment mating relationships (Buss, 2013; Buss et al., 1999).

Evolutionary theory only expects the sexes to differ in domains where the sexes have met different adaptive problems over evolutionary time (Buss, 1995; Kennair, 2002; Neuberg, Kenrick, & Schaller, 2010; Symons, 1979). Different threats to relationships have posed different adaptive problems for men and women. Sex differences in the psychological design of jealousy are predicted by sex differences in adaptive problems such as paternity certainty for men and father investment for women (Buss & Haselton, 2005; Trivers, 1972). Internal

female fertilization leads to the male-specific problem of paternity uncertainty. Consequently, men relative to women have been predicted to possess a psychology that is more strongly activated by the sexual components of a partner's infidelity. Although no woman ever faced the adaptive problem of maternity uncertainty due to a partner's infidelity, women have risked the diversion of a partner's time, attention, energy, effort, and resources, all of which could get channeled to a rival woman and her offspring. Consequently, women relative to men have been predicted to have jealousy design features that are more strongly activated by cues to emotional infidelity—a key predictor of the diversion of those resources (Buss & Haselton, 2005; Daly et al., 1982; Symons, 1979). Two major measurement paradigms have been applied to assess sex differences in what aspect of infidelity that activates jealousy. On the one hand, robust sex differences supporting the evolutionary hypothesis are shown when using forced choice measures, whereas the use of continuous measures has shown less consistent results. This has spurred some controversy.

Within the forced choice methodology (Buss et al., 1992, 1999) participants are confronted with one or more hypothetical infidelity scenarios. They must choose one of two options regarding which aspect of the infidelity that upset or distress them most (make them most jealous), either the sexual or the emotional. DeSteno, Bartlett, Braverman, and Salovey (2002) have argued for the alternative continuous measures as a more ecological valid alternative to the forced choice methodology. They claim that the forced choice paradigm does not reflect real life decision making; producing artificial sex differences. They suggest that people are seldom put in a position where we are forced to choose

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between what is most distressing, either sexual infidelity or emotional infidelity.

### 1.1. Findings using forced choice measures

Carpenter (2012) reported a moderate overall sex difference in sexual jealousy responses supporting the evolutionary hypothesis in a meta-analysis covering 54 papers. This general finding is further sustained in three recently published American studies (Brase, Adair, & Monk, 2014; Frederick & Fales, 2014; Zengel, Edlund, & Sagarin, 2013). Although sex differences are found across cultures (Buss, 2013), Carpenter (2012) reported that men, relative to women, found sexual infidelity more distressing than emotional infidelity in American samples compared with samples outside the USA. On the other hand, three Scandinavian studies all report large sex differences in jealousy responses (Bendixen et al., 2015; Kennair, Nordeide, Andreassen, Strønen, & Pallesen, 2011; Wiederman & Kendall, 1999).

Some studies have shown that relationship experience produces stronger sex differences in jealousy responses (Buss et al., 1992; Murphy, Vallacher, Shackelford, Bjorklund, & Yungler, 2006), although current marital status does not appear to moderate sex differences in jealousy responses (Zengel et al., 2013). Recently, Frederick and Fales (2014) found that the sex effect is held up across different levels of income, relationship length, and history of infidelity experiences.

Stronger sex differences are reported for actual infidelity experiences than for hypothetical scenarios in a large American national sample (Zengel et al., 2013). Additionally, responding to hypothetical infidelity scenarios may be affected by prior infidelity experiences when these are activated through question order manipulation. Bendixen et al. (2015) found that women and men responded more sex-typically to forced choice infidelity scenarios when prior infidelity experiences were activated.

Research on individual differences associated with jealousy responses, possibly accounting for differences between men and women's responses is scarce. Sprecher, Felmlee, Metts, Fehr, and Vanni (1998) reported that relationship commitment was positively related to the degree of distress after break-up. Brase et al. (2014) found that sex differences in response to six forced choice hypothetical scenarios were not accounted for by attachment style, sexism, masculinity–femininity, culture of honor, or sociosexuality (showing preference for short-term mating strategies).

### 1.2. Findings using continuous measures

Carpenter's (2012) meta-analysis also covered 42 studies using continuous measures. He concluded that both men and women rated the sexual infidelity as more distressing than emotional infidelity without examining whether men, relative to women, report greater jealousy in response to sexual infidelity than in response to emotional infidelity. The latter was done by Sagarin et al. (2012) in their meta-analysis of 47 independent samples. They reported overall small-to-moderate theory-supportive sex effects. Somewhat stronger sex effects were reported in more recent papers, when responses were specified as jealousy or distress/upset, when a forced choice question (before or after the forced choice) was included, and when response scales included seven or more points. Albeit the overall sex difference in jealousy responding was smaller for continuous than for forced choice measures, the sex difference did not differ for actual infidelity versus to hypothetical scenarios, and it held up cross-culturally. Sagarin et al. (2012) demonstrated that the sex difference was not an artifact of the forced choice methodology.

### 1.3. The current study

Using a large sample of Norwegian students we wanted to perform a rigorous test comparing sex differences in jealousy responses by

randomly allocating forced choice or continuous measures to participants from the same population, testing whether the sex difference in jealousy responses is robust across measurement methods. Moreover, to study sex differences in jealousy responding in one of World's most gender egalitarian cultures (Bendixen, 2014; Grøntvedt & Kennair, 2013) is particularly important as evolved preferences and sex differentiated traits may be expressed to a larger degree in egalitarian cultures (Buss et al., 1992; Lippa, 2010; Schmitt, Realo, Voracek, & Allik, 2008).

#### 1.3.1. Aims and hypotheses

The first aim is simply to replicate the established sex-difference in sexual jealousy using four of the forced choice scenarios from Buss et al. (1999).

**H1.** When confronted with infidelity dilemmas we expect a larger proportion of men, relative to women, to find the sexual aspect of infidelity more distressing than the emotional aspect (Bendixen et al., 2015; Buss et al., 1992, 1999; Kennair et al., 2011).

**H2.** A current intimate partner activates jealousy responses differently in men and women. Therefore, current relationship status will affect sex differences in responses to the infidelity scenarios. More specifically we predict that sex differences for partnered participants are stronger than for single participants (Buss et al., 1992; Murphy et al., 2006).

**H3a.** Prior actual infidelity experiences do not affect sex differences in jealousy responses. Regardless of actual infidelity experiences, relative to women, men will find the sexual infidelity aspect more distressing than the emotional infidelity aspect (Frederick & Fales, 2014; Sagarin et al., 2012, but see Zengel et al., 2013).

**H3b.** Activation of prior infidelity experiences accentuates sex-typical differences in jealousy responses. We predict sex differences in jealousy to be particularly strong for participants having been reminded of past infidelity experiences (Bendixen et al., 2015).

**H4.** Sex difference in jealousy responses to infidelity scenarios is not an artifact of the forced choice paradigm. We predict that the sex differences in responding to forced choice infidelity scenarios are reproduced in samples using continuous measures when the samples are drawn from the same population.

Research question: Following Brase et al. (2014) line of research we finally wanted to investigate the effect of relationship commitment and preference for short-term sexual strategies (sociosexuality) on sex differences in jealousy responses.

## 2. Methods

### 2.1. Participants and procedure

The final sample covered 1074 heterosexual participants aged 30 and younger (639 women, 435 men) at the Natural-, Social-, and Human sciences. Average age of the women and men was 21.1 ( $SD = 1.9$ ) and 21.5 ( $SD = 2.1$ ), respectively. Opposite sex sexual attraction was used for selecting heterosexuals for analysis ('men only', 'mostly men', 'both sexes equally', 'mostly women', 'women only'). Four percent of the sample indicated same-sex attraction or equally strong attraction to both sexes. When asked if they were "romantically involved in a serious committed relationship" the majority reported 'No' (women 51.2%, men 64.1%).

Students were informed about study, invited to participate, and completed questionnaires in breaks between lectures. Participation was voluntary, and completely anonymous. No course credit was given for participation.

## 2.2. Measurements

### 2.2.1. Infidelity dilemmas questionnaire

We developed four versions of the questionnaire: Versions A and B covered forced choice responses to jealousy scenarios presenting questions of infidelity experiences before (activation) or after the scenarios. Version C and D covered continuous responses to jealousy scenarios using the same question order manipulation as above. The questionnaire versions were randomly assigned to students attending the lectures.<sup>1</sup> We applied the four most frequently used forced choice scenarios from Buss et al. (1999) and constructed corresponding continuous measures for each scenario. Scenario 1: Enjoying a sexual relationship versus forming deep emotional relationship, Scenario 2: Trying different sexual positions versus falling in love, Scenario 3: Given both an emotional attachment and sexual intercourse, which aspect would upset you more, and Scenario 4: Emotional attachment but no sexual intercourse versus sexual intercourse but no emotional attachment.

Responses on the four forced choice scenarios were coded “0” (finding the emotional infidelity more upsetting) and “1” (finding sexual infidelity more upsetting). A Sexual Jealousy Scale Score (SJS) was calculated as the sum of the responses to the four scenarios with higher scores associated with greater discomfort with sexual infidelity. Continuous responses were coded from ‘Not at all upset’ (1) to ‘Very upset’ (7) (endpoints only). Item scores for the four emotional infidelity items were summed and averaged. Higher scale values reflect greater discomfort. The same procedure was used for the four sexual infidelity items. Internal consistency for the Forced Choice Sexual Jealousy Scale was acceptable ( $\alpha = .75$ ), and good for the Continuous Emotional Jealousy Scale ( $\alpha = .88$ ) and for the Continuous Sexual Jealousy Scale ( $\alpha = .89$ ).

### 2.2.2. Infidelity experiences and relationship commitment

Following a short definition of emotional and sexual unfaithfulness, participants were asked if they had been victims of infidelity experiences in the current or former relationship. Questions read: “Have some of your partner(s) ever been, or is your current partner emotionally unfaithful to you” (No/Yes). A corresponding question was posed for sexual unfaithfulness. Item scores were applied as separate variables to the analyses.<sup>2</sup> Participants reporting infidelity experiences then rated their relationship commitment at the time of the most recent infidelity experience in two questions; “How strongly were you attached to your partner?” and “How strongly did you feel committed to your relationship partner?” Response alternatives were ‘Very little’ (1) through ‘Very strongly’ (9). Endpoints only were labeled. Item scores were summed and averaged.

### 2.2.3. Sociosexuality

All participants completed the 9-item Revised Sociosexuality Orientation inventory (SOI-R; Penke & Asendorpf, 2008), a three-component measure of preference for short-term mating strategies. Sample items for the behavioral, attitudinal, and desires components were: “With how many different partners have you had sex within the past 12 months?”, “Sex without love is OK”, and “In everyday life, how often do you have spontaneous fantasies about having sex with someone you have just met?” Response alternatives were ‘0’ (1) to ‘20 or more’ (9), ‘Strongly disagree’ (1) to ‘Strongly agree’ (9), and ‘Never’ (1) to ‘At least once a day’ (9) respectively. Internal consistencies for each of the three components were good (Behavior:  $\alpha = .87$ , Attitudes:  $\alpha =$

.86, and Desire:  $\alpha = .89$ ). Item scores were summed and averaged for each component.

## 3. Results

### 3.1. Forced choice measures

To examine sex differences in jealousy we first conducted  $\chi^2$  tests on responses to each of the four scenarios. The proportion of men (45.9%) that reported being more upset by sexual infidelity than by emotional infidelity was markedly larger than the proportion of women (16.6%) in Scenario 1,  $\chi^2(1, N = 527) = 53.00, p < .001, \phi = .317, d = .67$ . In Scenario 2 more men (37.2%) than women (8.7%) were more upset by sexual infidelity,  $\chi^2(1, N = 529) = 64.55, p < .001, \phi = .349, d = .74$ . This was also true for Scenario 3 (48.7% men and 17.8% women),  $\chi^2(1, N = 524) = 56.23, p < .001, \phi = .328, d = .69$ , and for Scenario 4 (58.7% men and 34.2% women),  $\chi^2(1, N = 526) = 29.89, p < .001, \phi = .238, d = .49$ . A sex difference in the means on the Sexual Jealousy Scale (SJS) showed that men ( $M = 1.90, SD = 1.55$ ) were far more upset by the sexual vs. the emotional aspect of infidelity than were women ( $M = 0.77, SD = 1.04$ ),  $F(1525) = 99.33, p < .001$ , indicating a large sex effect,  $\eta_p^2 = 0.159, d = .87$ .

#### 3.1.1. Moderators and covariates

To examine the effect of relational status on SJS a two-way 2 (sex: women vs. man)  $\times$  2 (status: single vs. paired) ANOVA was conducted. Compared to singles, partnered participants reported slightly more sexual jealousy over emotional jealousy,  $F(1, 523) = 3.98, p < .05, \eta_p^2 = .006, d = .16$ , but this relationship status effect was not qualified by participant sex,  $F(1523) < 1, ns$ . As shown in Fig. 1, the relative difference between men and women responses to the sexual jealousy scenarios remained unaffected by current relationship status.

To examine the effect of infidelity experiences on SJS a three-way 2 (sex: women vs. man)  $\times$  2 (emotional infidelity: no vs. yes)  $\times$  2 (sexual infidelity: no vs. yes) ANOVA was conducted. Being a victim of Emotional Infidelity did not predict jealousy responses,  $F(1518) = 1.53, ns$ , but the interaction with participant sex approached significance,  $F(1518) = 3.29, p = .070$ . Compared to women ( $M = 0.76$ ) and men ( $M = 1.96$ ) with faithful partners, women ( $M = 0.85$ ) whose partners had been unfaithful tended to report more sexual jealousy, men less ( $M = 1.45$ ). Similarly, those being a victim of Sexual Infidelity did not report higher sexual jealousy,  $F(1519) < 1, ns$ . The effect of participant sex was not qualified by experiences of Sexual Infidelity,  $F(1519) < 1, ns$ . The effect of being victim of both Emotional and Sexual Infidelity on sexual jealousy responding was also insignificant,  $F(1513) < 1$ . However, the effect of participant sex tended to be qualified by the effect of being victim of Emotional and Sexual Infidelity,  $F(1513) = 2.94, p = .087$ . Women who were victims of both emotional and sexual

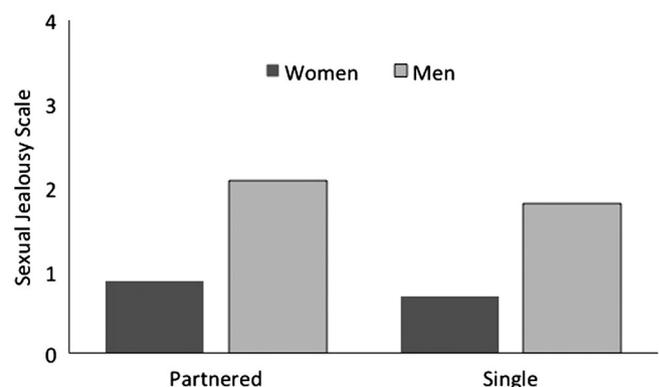


Fig. 1. Mean forced-choice jealousy scale scores for single and partnered women and men.

<sup>1</sup> The number of participants returning each of the four versions of the questionnaire was A: N = 273 (women, 149), B: N = 265 (women, 153), C: N = 268 (women, 171), and D: N = 268 (women, 166). The distribution of sex and relationship status did not differ significantly across the questionnaire versions.

<sup>2</sup> Eighteen percent women and 13% men reported emotional unfaithfulness by partner. Fifteen percent women and 7% men reported sexual unfaithfulness by partner.

infidelity tended to find the emotional aspect more distressing ( $M = 0.75$ ), while men with similar experiences found the sexual aspect more distressing ( $M = 2.17$ ).

To examine the effect of activating infidelity experiences on SJS a two-way 2 (sex: women vs. man)  $\times$  2 (manipulation: before vs. after) ANOVA was conducted. Question order was unrelated to sexual jealousy responding,  $F(1523) < 1$ , ns., and the participant sex effect was not moderated by Activation,  $F(1523) < 1$ , ns. A subsequent analysis including emotional infidelity, sexual infidelity and activation as predictors showed that the sex effect on SJS was not affected by any combination of infidelity and activation. Adding Age as a covariate to the above analyses did not affect the participant sex effects nor did adding the three Sociosexuality components or Level of commitment (among participants with infidelity experiences).

### 3.2. Continuous measures

Following the recommendations by Edlund and Sagarin (2009) and Sagarin et al. (2012) we examined sex differences in type of jealousy response by applying a mixed model ANOVA with Emotional Scale Score versus Sexual Scale Score as a within-subject factor. Relative to women, men reported far more jealousy in response to sexual infidelity than in response to emotional infidelity,  $F(1532) = 98.49$ ,  $p < .001$ , producing a large sex effect,  $\eta_p^2 = .156$ ,  $d = .86$ . Separate mixed model analyses of the four scenarios separately all produced strong sex effects (Scenario 1:  $d = .83$ , Scenario 2:  $d = .60$ , Scenario 3:  $d = .59$ , Scenario 4:  $d = .72$ ). Supplementary paired-sample *t*-tests on the scales suggest that women reported being more upset/jealous by Emotional infidelity ( $M = 6.38$ ,  $SD = 0.67$ ) than by Sexual infidelity ( $M = 6.01$ ,  $SD = 0.94$ ),  $t(299) = 7.05$ ,  $p < .001$ ,  $d = .45$ . Men reported being more upset by Sexual infidelity ( $M = 5.99$ ,  $SD = 1.15$ ) than by Emotional infidelity ( $M = 5.50$ ,  $SD = 1.10$ ),  $t(233) = -6.86$ ,  $p < .001$ ,  $d = -.44$ .

#### 3.2.1. Moderators and covariates

To examine the effect of relationships status on type of jealousy response we conducted a two-way mixed model ANOVA. The participant sex by type of jealousy interaction was not qualified by Relationship status,  $F(1530) < 1$ ; the profiles for women and men were similar for single and partnered participants. The analysis produced some *between-group* effects on overall level of Jealousy. As shown in Fig. 2, women reported moderately more jealousy than men,  $F(1532) = 38.49$ ,  $p < .001$ ,  $\eta_p^2 = .067$ ,  $d = -.54$ , and partnered participants reported more jealousy than singles,  $F(1530) = 63.53$ ,  $p < .001$ ,  $\eta_p^2 = .107$ ,  $d = .69$ . The overall participant sex effect was qualified by a Sex by Relationship status interaction effect,  $F(1530) = 4.69$ ,  $p < .05$ ,  $\eta^2 = .009$ ,  $d = .19$ . Evidently, men's jealousy responses

were somewhat stronger affected by being in a relationship than were women's.

Next, we examined the effect of infidelity experiences on type of jealousy response conducting a three-way mixed model ANOVA. The results suggest that neither being a victim of Emotional Infidelity,  $F(1, 525) < 1$ , nor being a victim of Sexual infidelity,  $F(1525) < 1$ , nor any combination of infidelity experiences (both, either, or neither emotional nor sexual) moderated the sex difference in jealousy responding. Being a victim of Emotional or Sexual infidelity did also not influence overall jealousy responses.

When we examined the effect of activating infidelity experiences we found that participant sex by type of jealousy interaction was qualified by Question order manipulation producing significant a three-way interaction,  $F(1530) = 7.10$ ,  $p < .01$ ,  $\eta_p^2 = .013$ ,  $d = .23$ . The participant sex by type of jealousy interaction was less profound for participants responding to questions regarding infidelity experiences first. Inspection of the means suggests that when activated the level of emotional jealousy (but not sexual jealousy) differed less between men and women producing more sex-similar profiles. The between group analysis suggests that activating infidelity experiences did not influence overall jealousy responses.

Entering Age as a covariate in the above analyses did not affect the results reported from the analyses above. Entering the three Sociosexuality components as covariates did not affect the participant sex by type of jealousy interaction effect (that remained strong,  $F(1513) = 79.47$ ,  $p < .001$ ,  $\eta_p^2 = .134$ ,  $d = .79$ ). Finally, Level of commitment among participants with infidelity experiences did not affect the above participant sex by type of jealousy interaction effect.

## 4. Discussion

The results from the forced choice and continuous measures show that men, relative to women, are markedly more distressed by the sexual than by the emotional aspect of infidelity ( $d = .87$  and  $d = .86$ , respectively). The result is robust across measurement paradigms. Further, none of the moderators accounted for these robust sex differences in jealousy responses, supporting prior findings (Brase et al., 2014; Frederick & Fales, 2014).

The forced choice results are comparable to previous studies of jealousy in Scandinavia (Bendixen et al., 2015; Kennair et al., 2011; Wiederman & Kendall, 1999). The continuous measures have not previously been applied in a Scandinavian sample. We did not use extreme upper anchoring or a very large number of response alternatives, but followed intermediate, but relevant recommendations given previous research (Edlund & Sagarin, 2009). Although, the current sample consisted of students, which is found to produce stronger sex differences (Sagarin et al., 2012).

Continuous measures provide information about the specific levels of the two aspects of jealousy. An important methodological implication from our findings is that both aspects of infidelity need to be considered when studying jealousy responses. Erroneous inferences may easily be drawn from studies using continuous measures of one aspect and leaving out the other and Edlund and Sagarin (2009) note that the nature of the sex effect needs further examination of simple effects on both aspects. That is, the sex difference may stem from a "boost in men's jealousy in response to sexual infidelity, a boost in women's jealousy in response to emotional infidelity, or both" (Footnote 2, p. 70). In the current sample we note that it was especially high scores in emotional jealousy in women that drove the difference.

Partnered participants reported slightly more sexual jealousy over emotional jealousy in the forced choice paradigm, and moderately more overall jealousy in the continuous paradigm. The relationship status effect differed slightly for women and men. Being in a relationship, where one has something to lose, increases the adaptive emotional response somewhat, and slightly more so for men. But current relationship status did not affect the strength of sex differences.

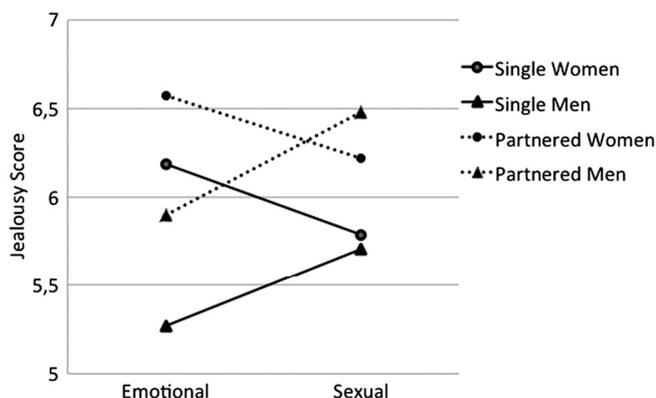


Fig. 2. Mean continuous emotional and sexual jealousy scale scores for single (solid lines) and partnered (dashed lines) women and men.

Bendixen et al. (2015) found an effect of the activation of infidelity memories prior to responding to the scenarios compared to having memories activated after one had responded. The effect of infidelity activation was a novel finding in Bendixen et al. (2015) and although significant it was not a strong effect and has not proven robust.

Buss et al. (1992) suggested that sex differences in jealousy responses would be greater in cultures where men invest heavily in children. Statistics Norway's time diary study shows that Norwegian fathers of children aged 0 to 6 years allocated 1 h and 38 min daily on caregiving in 2010 (<http://www.ssb.no/kultur-og-fritid/artikler-og-publikasjoner/fedre-deltar-mer-i-husarbeid-og-omsorg>). Daily time allocated to caregiving for Norwegian fathers has increased half an hour since the 1980s, while mother's caregiving time has remained stable. There seems to be a trend toward more paternal investment in Norway sustained by 'Paternal quota' legislations (ten weeks paternal leave allocated exclusively to fathers). Importantly, cross-national findings using time diaries suggest that Norwegian fathers spend more time on caregiving compared to American fathers (e.g., Bianchi, 2011; Yeung, Sandberg, Davis-Kean, & Hofferth, 2001). Our results may be interpreted as women in Norway being more distressed about losing male investment. The repeated strong effect of sex on jealousy in one of the World's most gender egalitarian cultures is especially important, since it provides a powerful test of how robust the sex differences are in a culture in which strong values and attitudes emphasize that men and women are psychologically monomorphic. Contrary to what social role theory would predict (Buss & Barnes, 1986) in nations with high levels of equality and high standards of living, evolved preferences and sex differentiated traits may be expressed to a larger degree (Lippa, 2010; Schmitt et al., 2008).

#### 4.1. Limitations

Albeit studying sex differences in jealousy responding using measures from competing paradigms, using question order manipulation, and randomly assigning the various versions of the questionnaire to participants, we acknowledge the usual limitations associated with the use of student populations rather than representative community samples. Further, we did not measure jealousy reactions to actual infidelity, only hypothetical scenarios. Finally, low Ns for samples of students reporting specific infidelity experiences may have reduced the power in some of the analyses.

#### 4.2. Conclusions

Sex differences in forced choice measures are robust in Scandinavian samples. In this first investigation of continuous measures of jealousy in a Norwegian context, there is a large sex difference in the direction predicted by evolutionary psychology. These large sex differences are especially noteworthy as they emerge from a highly egalitarian nation with high paternal investment expectancy, and because they contradict social role theories that predict a diminution of psychological sex differences as gender economic equality increases.

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