Upset in Response to a Sibling’s Partner’s Infidelity: A Study With Siblings of Gays and Lesbians, From an Evolutionary Perspective

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Abstract
Existing evidence suggests that the psychological design of romantic jealousy differs for men and women: Men are more likely than women to report greater upset in response to a partner’s sexual than emotional infidelity, whereas women are more likely than men to report greater upset in response to a partner’s emotional than sexual infidelity. However, the observed sex difference can be explained after the fact by both an evolutionary analysis of past reproductive costs and a social constructionist analysis of social and gender role training. Attempting to disentangle these competing perspectives, researchers have measured participants’ upset in response to a sibling’s or a child’s partner’s infidelities. In contrast to what a socialization perspective would predict, participants’ sex did not seem to affect their responses; the key variable was the sex of the sibling or the child, in line with a heuristic application of the evolutionary perspective. The present study attempted not only to test these competing hypotheses but also to extend previous work by involving participants with a gay or lesbian sibling and examining whether participants’ responses are triggered by their sibling’s or sibling’s partner’s sex. In line with an evolutionary perspective, participants’ sex did not assert an effect on their responses. The key variable seemed to be the sex of the sibling (rather than the sex of the sibling’s partner), with participants reporting greater levels of upset in response to the sexual than emotional infidelity of a gay brother’s partner and to the emotional than sexual infidelity of a lesbian sister’s partner. The ensuing discussion offers suggestions for future work on sex-specific triggers of jealousy.

Keywords
evolutionary psychology, jealousy, sex differences, siblings, partner, gays and lesbians

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Introduction
During the past decades, sex differences in the nature of jealousy have been widely studied by evolutionary psychologists. Although both sexes experience high levels of upset in response to a long-term partner’s real or hypothetical infidelity, there is a well-documented sex difference in the psychological weighting of the type of infidelity or the cues that trigger jealousy (see Becker, Sagarin, Guadagno, Millevoi, & Nicastle, 2004; Confer & Cloud, 2011; DeSouza, Verderane, Taira, & Otta, 2006). Specifically, men are more likely than women to report greater upset in response to a partner’s sexual (vs. emotional) infidelity, whereas women are more likely than men to report greater upset in response to a partner’s emotional (vs. sexual) infidelity (Buss, Larsen, Westen, & Semmelroth, 1992; Shackelford, Michalski, & Schmitt, 2004).

From an evolutionary perspective, this sex difference in jealousy may be explained in relation to the different adaptive problems that men and women recurrently faced. According to the theory of parental investment (Trivers, 1972), the sex that invests more in offspring—namely, women in humans, with a minimum obligatory 9-month investment—should be more fastidious about mates (Buss, 2006, 2007). Thus, an adaptive
problem women had to face was losing their partner’s resources and commitment, which could be diverted to a rival woman, with whom the man gets emotionally involved, and their offspring. In this context, women are more likely than men to report greater upset in response to a partner’s emotional than sexual infidelity. Moreover, since fertilization occurs internally within women, men cannot be sure that the child a woman is bearing is genetically their own. The sexual infidelity of a man’s partner would threaten his certainty of paternity, and it would thus be more likely that men report greater upset than women in response to a partner’s sexual than emotional infidelity (Buss, 1989). From an alternative socialization perspective (for a relevant discussion, see DeSteno & Salovey, 1996; Fenigstein & Peltz, 2002), however, the above-mentioned differences are explained in relation to individuals’ gender socialization histories and, more precisely, social role training and acquisition. In other words, it would be the social experiences of men and women and their social role training and acquisition that would shape their responses to jealousy triggers. For instance, a man would be more likely to report greater upset in response to a partner’s sexual than emotional infidelity because he has been socially taught to behave in this manner, whereas the opposite would be valid for a woman.

It seems, then, that both evolutionary and social constructionist theorists can explain the demonstrated sex differences in response to sexual versus emotional infidelities. In response, evolutionary researchers have generated predictions that pit the two accounts against one another and investigated other family members’ responses to infidelity. For example, researchers collected data from participants who were parents (Fenigstein & Peltz, 2002; Shackelford et al., 2004) or had at least one sibling (Michalski, Shackelford, & Salmon, 2007), asking them to report how upset they would be over the sexual or emotional infidelity of their child’s or sibling’s partner, respectively. In the context of an inclusive fitness (or kin selection) theoretical framework (see Hamilton, 1964, as cited in Buss, 2011), natural selection is expected to shape one’s reactions toward their partner’s infidelity, as well as a kin’s partner’s infidelity, by virtue of shared genes and aiming to maximize reproductive fitness (see Fenigstein & Peltz, 2002; Michalski et al., 2007). In other words, the greater the reproductive costs for a child or individual with a sibling, the greater the cost for parents or siblings (see also Michalski et al., 2007). It is noted that this relationship might be moderated by the closeness of kin’s relationship (namely, it might be stronger for full siblings, rather than for cousins; see also Daly, Salmon, & Wilson, 1997).

Given the above, from an evolutionary perspective, parents and individuals with a sibling would be expected to report greater upset in response to (a) the sexual rather than emotional infidelity of their son’s/brother’s partner and (b) the emotional rather than sexual infidelity of their daughter’s/sister’s partner, with the critical variable being the sex of their child or sibling rather than participants’ own sex. In contrast, a heuristic application of the socialization perspective would predict that (a) fathers would be more likely than mothers to report greater upset in response to the sexual than emotional infidelity of their child’s (son or daughter) partner and (b) mothers would be more likely than fathers to report greater upset in response to the emotional infidelity of a child’s (son or daughter) partner.

Three specific studies have primarily offered support for the evolutionary predictions. The results of Fenigstein and Peltz (2002) were largely consistent with the evolutionary hypothesis—that is, both mothers and fathers regarded sexual infidelity as more upsetting when committed by a son’s rather than a daughter’s partner, and emotional infidelity as more distressing when it involved a daughter’s rather than a son’s partner. These findings were replicated by Shackelford, Michalski, and Schmitt (2004) in a following study. In an attempt to examine whether previous findings apply only to the parent–child relationship or extend to other kin relationships, Michalski, Shackelford, and Salmon (2007) conducted a similar study, involving individuals with at least one sibling. In line with an evolutionary analysis of reproductive costs, the sex of the sibling (rather than the respondents’ gender) was once again the key variable predicting the responses of participants with siblings of a reproductive age.

The present study adopted a similar methodological strategy in order to examine whether the level of upset reported by a participant to the occurrence of a hypothetical sexual or emotional infidelity by a sibling’s partner is more likely to be a function of the sibling’s sex (in line with evolutionary predictions) or the participants’ gender (as a socialization account would predict). However, it should be noted that the limited previous studies (e.g., Michalski et al., 2007) do not make explicit reference to the sexual orientation of the participants’ siblings or children. If participants’ siblings/children are viewed as heterosexual, what still remains unexplored is whether participants’ responses are triggered by the sex of the sibling or, correspondingly, by the sex of the sibling’s partner. Specifically, greater levels of upset in response to the sexual rather than the emotional infidelity of a brother’s/son’s partner might be triggered either by the sex of the sibling/child (a man, facing the adaptive problem of paternity uncertainty) or by the sex of the sibling’s/child’s partner (the cheating woman, who might be fertilized by another man). Similarly, greater upset over the sexual rather than the emotional infidelity of a sister’s/daughter’s partner might be triggered by either the sex of the sibling/child (a woman, facing the risk of losing the man’s resources, commitment, and protection for her offspring) or of the sex of the sibling’s partner (the cheating man, who might divert resources and commitment to a rival woman).

Thus, taking a step further and extending Michalski and colleagues’ study (2007; see relevant suggestions in the Discussion section), we recruited individuals with a gay or lesbian sibling in an attempt to examine whether it is the sex of the sibling that of the sibling’s partner that triggers sex differences in response to a sibling’s partner’s infidelity. To the best of our knowledge, no study so far has looked into this topic. It should be noted that several researchers assume that homosexuality does not significantly interfere with social or emotional adaptations. For example, Kenrick, Keeffe, Bryan, Barr, and Brown (1995, p. 1167) noted that “... although
homosexuality is obviously not adaptive in itself, it seems to involve biological mechanisms, carried along via sexual reproduction.” In such a context, even individuals with a different sexual orientation (see Bailey, Gaulin, Agyei, & Gladue, 1994; Symons, 1979, as cited in Harris, 2002) should exhibit the same sex differences in the evolved psychological design of mating preferences and jealousy and be sensitive to similar fitness threats (e.g., reproductive costs stemming from losing exclusive access to a partner; see Buunk, Angleitner, Oubaid, & Buss, 1996; Sheets & Wolfe, 2001).

It is fair to notice that findings of the—limited in number—existing studies are often inconsistent or unclear. For instance, Bailey, Gaulin, Agyei, and Gladue (1994) reported lower sexual jealousy for gays compared to heterosexual men and higher sexual jealousy for lesbians compared to heterosexual women (see also Dijkstra et al., 2001). Harris (2002) found that upset was greater for an emotional infidelity of a partner not only for gays but also for heterosexual men (in contrast to the robust pattern observed in several previous studies; see Buss, 2011). There are, however, findings that support the view of sociosexual adaptations as aspects of a single, biologically driven, psychological module (see Sheets & Wolfe, 2001, for a discussion). For example, in the same study, Harris (2002) reported that virtually all the lesbian participants regarded emotional infidelity as more upsetting than sexual infidelity (a finding that is consistent with the evolutionary perspective and with relevant evidence for heterosexual women). Moreover, in the above-mentioned study, Bailey and colleagues (1994) revealed significant sex differences in all seven mating preference scales used (including the sexual vs. emotional jealousy scale) but no differences between each homosexual group and the same-sex heterosexuals in most comparisons conducted. Specifically, researchers reported no difference between lesbians and heterosexual women in the distress reported over a partner’s emotional infidelity compared to sexual orientation. In other words, we expected to replicate Michalski and colleagues’ (2007) findings, showing that both male and female participants will report more upset over the sexual versus emotional infidelity of their male sibling’s partner and more upset over the emotional versus sexual infidelity of their female sibling’s partner, despite the fact that our participants’ siblings are gays and lesbians and, hence, the sibling’s partner’s sex is the opposite of what it was in Michalski and colleagues’ study.

We tested the following research questions and hypotheses:

Research Question 1: Is upset reported by participants in response to the hypothetical infidelity (sexual and emotional) of a sibling’s partner affected by the sibling’s sex (evolutionary perspective) or the participant’s gender (socialization perspective)? In line with the evolutionary account, we expect the sex of the sibling to differentiate the reported upset in response to the sexual (vs. emotional) infidelity of a sibling’s partner (Hypothesis 1).

Research Question 2: Is it the sex of the sibling or that of the sibling’s partner that triggers participants’ responses? From an evolutionary psychology perspective, the following opposing hypotheses were derived:

Hypothesis 2a: In conventional (sex linked and independent of sexual orientation) evolutionary terms, it would be sibling’s sex, rather than the sex of the sibling’s partner that triggers the responses, if individuals report greater upset in response to (a) the sexual than emotional infidelity of a gay brother’s partner (faced with the risk of cuckoldry and paternity uncertainty) and (b) the emotional than sexual infidelity of a lesbian sister’s partner (risking to lose the partner’s resources).

Hypothesis 2b: In contrast, it would be the sex of the sibling’s partner that triggers responses, if individuals report greater upset in response to (a) the emotional than sexual infidelity of a gay brother’s partner (the cheating male, who might divert resources and commitment elsewhere) and (b) the sexual than emotional infidelity of a lesbian sister’s partner (a female, risking fertilization by the rival partner).

Method

Participants

The sample included 62 heterosexual participants with one gay or lesbian sibling (full sibling). Among the 32 male participants, half of them had a gay brother and half had a lesbian sister. Among the 30 female participants, there were 14 with a gay brother and 16 with a gay sister. The age of the participants...
ranged from 16 to 45 years \((M = 27.38, \text{ standard deviation } [SD] = 6.20)\) and the age of the siblings ranged from 17 to 36 years \((M = 25.72, SD = 4.68)\). Most participants \((n = 29)\) had a middle-class status \((46.8\%)\), whereas 17 \((27.4\%)\) participants had a lower middle-class status, 11 \((17.7\%)\) participants had an upper-class status, and 5 \((8.1\%)\) participants had a low-class status.

The present study (as approved by the University of Sheffield Research Ethics Committee) employed snowball (or chain) sampling \((\text{DeSouza et al., 2006})\), a technique used to access hidden or difficult-to-access populations (in this case, participants with gay/lesbian siblings). It is also a quick and cost-effective sampling technique. Specifically, 70 questionnaires \(\text{along with consent forms informing participants about the study and ensuring anonymity and confidentiality of the data collected) were given to three acquaintances of the researcher with a gay/lesbian sibling, who then forwarded the questionnaires to acquaintances of theirs with a gay/lesbian sibling, and so forth. After a month, 62 questionnaires (each one in a sealed envelope) were returned to the researcher via the three same acquaintances \((89\% \text{ response rate})\).

**Design**

A 2 \((\text{participant’s sex}) \times 2 \text{ (gay/lesbian siblings’ sex) } \times 2 \text{ (upset toward emotional or sexual infidelity)}\) mixed factorial experiment was conducted. Specifically, participants’ sex and the gay/lesbian siblings’ sex were manipulated between subjects, whereas upset toward each hypothetical infidelity type \(\text{(sexual or emotional)}\) was manipulated within subjects.

**Measures**

We used the 8-point scale questions taken from a questionnaire developed to study relationships with siblings and their partners \(\text{(acquired via personal communication from Richard Michalski; see also Michalski et al., 2007). These questions paralleled the structure of those designed by Buss, Larsen, Westen, and Semmelroth (1992) used to assess upset in response to a partner’s infidelities. The questionnaire was translated into Greek with a back-and-forth translation procedure, ensuring the translation’s accuracy.}

The questionnaire’s first page consisted of a demographic section requiring information about participants’ and their sibling’s age, sex, and sexual orientation as well as about participants’ social, relationship, and family status as well as their exact relationship with their sibling \(\text{(full or half sibling). The demographic section was followed by two identical sets of questions: one aimed at the participants with a lesbian sister and the second at those with a gay brother. Each section included 10 questions, measuring the levels of participant’s upset toward the hypothetical infidelity \(\text{(sexual and emotional)}\) of their gay/lesbian sibling’s partner. Among them, five questions regarded a case of sexual infidelity \(\text{(Cronbach’s } \alpha = .90)\) and five questions consisted the emotional infidelity subscale \(\text{(Cronbach’s } \alpha = .92)\). The questions were given in fixed order, as included in the relevant questionnaire, with a question addressing sexual infidelity \(\text{(e.g., “How upset would you be if you discovered that your homosexual sister’s/brother’s partner had enjoyed passionate sexual intercourse with another person?”)},\) being followed by one regarding emotional infidelity \(\text{ (“How upset would you be about your homosexual sister’s/brother’s partner being emotionally involved with that other person?”)},\) then again by a sexual infidelity item and so forth.

Participants were required to rate their level of upset on an 8-point scale, ranging from \(0 \text{(not at all upset)}\) to 7 \(\text{(unbearably upset)}\). Two scores were calculated for each participant based on the sum of his or her ratings on the sexual and emotional subscales \(\text{(with a minimum score of 0 and a maximum score of 35 on each subscale).}

**Results**

The mean scores, \(\text{SDs, and score ranges for the measures of upset in response to a sibling’s partner’s sexual and emotional infidelity, per participants’ own sex and their gay/lesbian siblings’ sex are provided in Table 1.}

In order to examine the first research question of the study and, specifically, whether participants’ upset levels toward the hypothetical infidelity \(\text{(sexual and emotional)}\) of their sibling’s partner depend on their own sex and/or that of their gay/lesbian sibling, a mixed factorial analysis of variance was conducted. Participants’ sex and siblings’ sex were entered as the between-subject factors and the upset in response to the sexual and emotional infidelity of a sibling’s partner was entered as the within-subject factor.

The main effects along with the three-way interaction and the two-way interaction between participant’s sex and upset levels did not reach statistical significance \(\text{(all } \text{ps } > .05)\). There was, however, a significant two-way interaction between the sibling’s sex and upset in response to the sexual and emotional infidelity of a sibling’s partner, \(F(1, 58) = 46.36, \text{ } p < .001, \eta^2 = .44\) \text{(see Figure 1). In line with the first hypothesis, the sex of the sibling was the key factor differentiating participants’ responses toward the hypothetical infidelity \(\text{(sexual/emotional)}\) of their sibling’s partner.}
To further examine the significant two-way interaction, we conducted two paired-sample t-tests: one within the group of participants with a gay sibling and another within the group of participants with a lesbian sibling, comparing participants’ upset levels in response to a sibling’s partner’s sexual and emotional infidelity. Participants with a gay brother reported greater upset in response to their sibling’s partner’s sexual infidelity ($M = 29.20$, $SD = 4.25$) than emotional infidelity ($M = 23.83$, $SD = 6.75$), $t(29) = 5.30$, $p < .001$, $d = .86$. Moreover, participants with a lesbian sister reported being more upset in response to their sibling’s partner’s emotional infidelity ($M = 29.94$, $SD = 4.27$) than sexual infidelity ($M = 24.91$, $SD = 6.85$), $t(31) = 4.50$, $p < .001$, $d = .79$. The results are consistent with Hypothesis 2a, which stated that the sex of the sibling (rather than the sex of the sibling’s partner) would trigger participants’ responses toward the hypothetical infidelity of a sibling’s partner.

**Discussion**

The current study contributes to the existing literature on sex-specific triggers of jealousy in several ways. It has attempted to extend previous studies by testing competing socialization and evolutionary hypotheses about how human jealousy is designed to respond. Specifically, we examined sex differences in infidelity-related distress, as reported by individuals who are genetically a step removed from the sexual behaviors of “significant others” (in this case, of their siblings’ partners’ but are still potentially influenced by the reproductive consequences of that behavior. In line with our first hypothesis, the distress experienced by a participant to the occurrence of sexual or emotional infidelity by a sibling’s partner seemed to be more a function of the sibling’s sex than of the participant’s gender.

Our findings are thus consistent with the suggestion that sex differences reflect sex-differentiated evolved psychological design rather than gender-differentiated socialization practices, social role training, and acquisition.

Studying individuals with siblings of a homosexual orientation has also enabled us to examine suggestions made for deeply rooted evolutionary dynamics that operate irrespectively of sexual orientation. In the relevant study of Michalski and colleagues’ (2007), both male and female participants reported more upset over the sexual than emotional infidelity of their (presumably heterosexual) male sibling’s partner and more upset over the emotional than sexual infidelity of their (presumably heterosexual) female sibling’s partner. It is noted that the pattern of findings is the same in our study, despite the fact that our participants’ siblings were gays and lesbians and, hence, the sibling’s partner’s sex was the opposite of what it was in Michalski and colleagues’ study.

Studying individuals with siblings of a homosexual orientation also allowed us to extend Michalski and colleagues’ (2007) work, in determining what triggers participants’ responses (the sex of the sibling or of the sibling’s partner). Specifically, in line with Hypothesis 2a, participants with a gay brother were found to report more upset over sexual (vs. emotional) aspects of a sibling’s partner’s hypothetical infidelity, and participants with a lesbian sister reported becoming more upset over emotional (vs. sexual) aspects of a sibling’s partner’s infidelity. Thus, we conclude that the responses toward the hypothetical infidelity of a sibling’s partner are driven by the sex of the sibling rather than that of the sibling’s partner.

The latter finding is not consistent with the double-shot hypothesis (see DeSteno & Salovey, 1996; Harris & Christenfeld, 1996), suggesting that certain types of infidelity might be regarded as more upsetting by some individuals than others, simply because they represent a double—and thus, more troubling—type of infidelity. For instance, in women mostly, sexual infidelity is assumed to strongly implicitly suggest emotional infidelity too, whereas in men mostly, emotional infidelity is expected to imply associated sexual infidelity. In such a context, it would thus be the gender of one’s partner that drives the degree of upset in response to each infidelity type. Specifically, applied to the present study, the sexual (rather than emotional) infidelity of a sibling’s partner would be expected to cause more distress to participants with a lesbian sibling (whose partner is a female), since it would also imply emotional infidelity on the partner’s behalf. On the other hand, the emotional (rather than sexual) infidelity of a sibling’s partner would be more distressing for participants with a gay sibling (whose partner is a male), since it would also imply sexual infidelity on the partner’s behalf (i.e., a double shot of infidelity in both cases). However, as mentioned above, we found the exact opposite, in line with the evolutionary perspective we adopted. Future research studies are expected to shed more light on this issue by examining how upset gays and lesbians (rather than individuals with gay and lesbian siblings) would report being in response to the sexual or emotional infidelity of their partner.
A sample of participants with gay/lesbian siblings is not easy to find, especially in Greece, where homosexuality is not yet an open issue. It is for this reason that snowball sampling was used to track down this hidden population. Future studies might include participants in an online survey with full anonymity preserved, in an attempt to utilize a larger sample of participants, thus allowing for other variables to be considered (e.g., effects of participants’ or siblings’ age). Besides larger sample sizes, future studies could also rely on forced-choice questions in an attempt to investigate whether the type of measures used affect the observed patterns (see also Becker et al., 2004; Confer & Cloud, 2011).

Researchers could also attempt to meet the ethical challenges of examining participants’ responses toward their siblings’ partners’ actual infidelity. According to a recently published meta-analysis (Sagari et al., 2012), although sex differences in jealousy are documented in relation to a partner’s hypothetical infidelity, there is limited evidence with actual infidelity in focus. This line of research might provide valuable insights concerning the nature and origin of jealousy (see Gorman & Blow, 2008), and in the long run, this could inform the development of successful interventions (e.g., in couples therapy), specialized for the needs of each individual.

Finally, it is noted that the present study was conducted in Greece, a collectivistic-traditional Mediterranean culture, where a limited number of studies have addressed evolutionary psychology topics in general. The Greek context differs significantly from the postindustrialist, individualistic North American culture, where most evidence on sex-specific triggers of jealousy stems from. Our findings overall converge with previous research using heterosexual siblings (and children), suggesting the operation of similar, deeply rooted evolutionary dynamics that operate regardless of sexual orientation or culture (see Buunk et al., 1996). Examining whether such findings on jealousy, as well as on other social or emotional adaptations (e.g., mating preferences), extend to other cultural settings could add to the weight of the evidence, suggesting that evolutionary principles underlay our understanding of human thought, emotion, and behavior.

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**References**

Bailey, J. M., Gaulin, S., Agyei, Y., & Gladue, B. A. (1994). Effects of gender and sexual orientation on evolutionarily relevant aspects of human mating psychology. *Journal of Personality and Social Psychology, 66*, 1081–1093.

Becker, D. V., Sagarin, B. J., Guadagno, R. E., Millevoye, A., & Nicastle, L. D. (2004). When the sexes need not differ: Emotional responses to the sexual and emotional aspects of infidelity. *Personal Relationships, 11*, 529–538.

Buss, D. M. (1989). Conflict between the sexes: Strategic interference and the evocation of anger and upset. *Journal of Personality and Social Psychology, 56*, 735–747.

Buss, D. M. (2006). Strategies of human mating. *Psychological Topics, 15*, 239–260.

Buss, D. M. (2007). The evolution of human mating. *Acta Psychologica Sinica, 39*, 502–512.

Buss, D. M. (2011). *Evolutionary psychology: The new science of the mind* (4th ed.). New York, NY: Pearson.

Buss, D. M., Larsen, R. J., Westen, D., & Semmelroth, J. (1992). Sex differences in jealousy: Evolution, physiology, and psychology. *Psychological Science, 3*, 251–255.

Buunk, B. P., Angleitner, A., Oubaid, V., & Buss, D. M. (1996). Sex differences in jealousy in evolutionary and cultural perspective: Tests from the Netherlands, Germany, and the United States. *Psychological Science, 7*, 359–363.

Confer, J. C., & Cloud, M. D. (2011). Sex differences in response to imagining a partner’s heterosexual or homosexual affair. *Personality and Individual Differences, 50*, 129–134.

Daly, M., Salmon, C., & Wilson, M. (1997). Kinship: The conceptual hole in psychological studies of social cognition and close relationships. In J. A. Simpson & D. T. Kenrick (Eds.), *Evolutionary social psychology* (pp. 265–296). Mahwah, NJ: Lawrence Erlbaum.

DeSouza, A. A., Verderane, M. P., Taira, J. T., & Otta, E. (2006). Emotional and sexual jealousy as a function of sex and sexual orientation in a Brazilian sample. *Psychological Reports, 98*, 529–535.

DeSteno, D. A., & Salovey, P. (1996). Evolutionary origins of sex differences in jealousy: Questioning the “Fitness” of the model. *Psychological Science, 7*, 367–372.

Dijkstra, P., Groothof, H. A., Poel, G. A., Laverman, E. T., Schrier, M., & Buunk, B. P. (2001). Sex differences in the events that elicit jealousy among homosexuals. *Personal Relationships, 8*, 41–54.

Fenigstein, A., & Peltz, R. (2002). Jealousy among homosexuals. In J. A. Simpson & D. T. Kenrick (Eds.), *Evolutionary social psychology* (pp. 129–134). Mahwah, NJ: Lawrence Erlbaum.

Fenigstein, A., & Peltz, R. (2002). Jealousy among homosexuals. In J. A. Simpson & D. T. Kenrick (Eds.), *Evolutionary social psychology* (pp. 129–134). Mahwah, NJ: Lawrence Erlbaum.

Gorman, L., & Blow, A. (2008). Concurrent depression and infidelity. *Journal of Couples and Relationship Therapy: Innovations in Clinical and Educational Interventions, 7*, 39–58.

Harris, C. R. (2002). Sexual and romantic jealousy in heterosexual and homosexual adults. *Psychological Science, 13*, 7–12.

Harris, C. R., & Christenfeld, N. (1996). Gender, jealousy, and reason. *Psychological Science, 7*, 364–366.

Kenrick, D. T., Keefe, R. C., Bryan, A., Barr, A., & Brown, S. (1995). Age preferences and mate choice among homosexuals and
heterosexuals: A case for modular psychological mechanisms. *Journal of Personality and Social Psychology, 69*, 1166–1172.

Michalski, R. L., Shackelford, T. K., & Salmon, C. A. (2007). Upset in response to a sibling’s partner’s infidelities. *Human Nature, 18*, 74–84.

Sagarin, B. J., Martin, A. L., Coutinho, S. A., Edlund, J. E., Patel, L., Skowronski, J. J., & Zengel, B. (2012). Sex differences in jealousy: A meta-analytic examination. *Evolution and Human Behavior, 33*, 595–614.

Shackelford, T. K., Michalski, R. L., & Schmitt, D. P. (2004). Upset in response to a child’s partner’s infidelities. *European Journal of Social Psychology, 34*, 489–497.

Sheets, V. L., & Wolfe, M. D. (2001). Sexual jealousy in heterosexuals, lesbians, and gays. *Sex roles, 44*, 255–276.

Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man, 1871–1971* (pp. 136–179). Chicago, IL: Aldine.