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Short Communication

Did you have sex with him? Do you love her? An in vivo test of sex differences in jealous interrogations

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ABSTRACT

Abundant evidence suggests that between sex differences exist in the degree to which cues to sexual and emotional infidelity trigger jealousy. A criticism of this research is that this commonly found sex difference is a consequence of the hypothetical scenario and forced-choice methodology that is commonly employed. This study used a novel method to explore the nature of jealousy-fueled interrogations ($N = 75$) in the face of actual infidelities captured on video in the syndicated reality program *Cheaters*. Fifty-one episodes of *Cheaters* were content analyzed by six coders trained to watch each episode. As predicted, men were more likely than women to inquire about the sexual aspect of their partners' infidelities, whereas women were more likely than men to inquire about the emotional aspect of their partners' infidelities. These results suggest that humans have sex-differentiated damage assessment strategies dedicated to investigating the nature of their mates' extra-pair relationships. Although previous studies have found sex differences in jealousy using prospective and retrospective reports, this is the first study to demonstrate sex differences in romantic jealousy in vivo. These findings refute the criticism that sex differences in jealousy are mere methodological artifacts. Discussion focuses on the benefits and limitations of content-analyzing *Cheaters*.

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1. Introduction

In their seminal study of sex differences in elicitors of jealousy, Buss, Larsen, Westen, and Semmelroth (1992) predicted and found that (a) men more than women become upset at cues to a partner's sexual infidelity, which portend cuckoldry, and (b) women more than men become upset at cues to a partner's emotional infidelity, which signal the loss of resources to a rival. Despite dozens of replications in a variety of cultures using a multitude of methods employed on diverse samples of participants (see Table 11.1 in Buss, 2012), Buss et al.'s findings have been challenged.

A common criticism was recently reiterated by DeSteno (2010) in his comment on Levy and Kelly's (2010) study of the links among sex, attachment style, and elicitors of jealousy. Buss et al.'s and Levy and Kelly's studies asked participants to select which of two hypothetical infidelity scenarios was more distressing. DeSteno (2010) (see also DeSteno, Bartlett, Braverman, & Salovey, 2002; DeSteno & Salovey, 1996; Harris, 2002, 2003, 2005) claims that the sex differences in jealousy that are commonly found are merely a consequence of the forced-choice methodology used to find them, and are not found when continuous measures

are used (but see Edlund, 2011 for a cogent reply to this criticism). Due to humans' poor ability to accurately forecast their future emotional reactions (Wilson & Gilbert, 2003) to actual infidelities, DeSteno argues that "the methodology in question – requiring participants to make a forced choice between two hypothetical scenarios – must be abandoned for significant advancement in the study of jealousy to occur" (p. 1355).

The present study heeds DeSteno's clarion call that "jealousy, like other social emotions, ... needs to be studied in vivo" (p. 1355) by exploring actual jealous behavior in the face of real infidelity through a content analysis of the syndicated reality television series *Cheaters*. This series chronicles the real-life romantic entanglement of "love triangle" cases involving a victim, cheater, and interloper. This study aimed to explore if actual male and female victims of infidelity engage in different jealousy-fueled interrogations of their cheating mates. Given the differential costs sexual and emotional infidelity posed for each sex, there is good reason to expect that humans have sex-differentiated damage assessment strategies dedicated to investigating the nature of a partner's infidelity.

As a result of internal female fertilization, a partner's sexual infidelity rendered ancestral men but not women at risk of incurring cuckoldry costs that included furthering another's genes, losing a partner's reproductive resources, wasting effort devoted to selecting, attracting, and courting a partner, and lowered status and reputation. As Kuhle, Smedley, and Schmitt (2009) reasoned:

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Interrogations of the sexual nature of a partner's affair would have aided ancestral men in assessing the damage incurred from a partner's transgression by providing information relevant to the decision to continue with, alter, or end the relationship. Although ancestral women did not run the risk of cuckoldry, their partners' affairs posed a significant adaptive problem. Ancestral mated men who defected from their mates by mating with other women would likely have reallocated resources to the extra-pair partners. As such, women whose partners became involved with extra-pair partners risked losing their partners' time, attention, investment, protection, and commitment. Interrogations of the emotional nature of a partner's affair would have helped ancestral women assess the damage incurred from a partner's transgression by providing information relevant to the decision to maintain or terminate the relationship. (p. 500).

Due to the sex-linked reproductive costs that a partner's infidelity posed ancestral humans (Buss et al., 1992), two predictions were made about the nature of the jealousy-fueled interrogations that victims of infidelity would direct toward their unfaithful partners on *Cheaters*. Upon discovering that their mate had been unfaithful, (1) men more so than women would inquire more about the sexual nature of the extra-pair relationship; (2) women more so than men would inquire more about the emotional nature of the extra-pair relationship.

2. Methods

Cheaters was "molded in the fashion of prime time magazine programs such as *60 Minutes*, *20/20* and *Primetime Live*" and received the Certificate of Merit from the Chicago International Television Awards for Superior Quality in 2003 (Bobby Goldstein Productions, 2005). Each episode of *Cheaters* chronicled the real-life romantic entanglement of two separate "love triangle" cases involving a victim ($M_{\text{age}} = 29.1$ years, range = 18–61 years), cheater ($M_{\text{age}} = 27.7$ years, range = 20–51 years) and interloper. Average length of the victim and cheater's relationship was 3.6 years (range = 3 months–30 years). All cases followed this sequence of events:

- 1) The victim contacted the Cheater's Detective Agency (CDA) with a suspicion that a mate has been cheating.
- 2) The CDA clandestinely videotaped the cheater's actions over a several week period.
- 3) CDA presented video evidence to the victim of the cheater's involvement with the interloper and offered the victim the opportunity to immediately confront the cheater and interloper, who were presently together.
- 4) CDA accompanied and recorded the victim's jealousy-fueled confrontation with and interrogation of the cheater and interloper.

All known and available DVD's of *Cheaters* (as of November, 2009) were purchased online and resulted in 11 discs depicting 55 episodes over a cumulative running time of 40.33 h. Fifty-one of these episodes were content analyzed by six undergraduate coders trained to watch each episode and complete a 45-item coding sheet. Training consisted of the primary researcher and six coders watching episodes and discussing, debating, and deciding what constituted evidence of the victim exhibiting sexual and emotional jealousy. Training continued until (a) the coders felt comfortable distinguishing between each form of jealousy and (b) they were in agreement with each other. This resulted in four "training episodes" being viewed and dissected over a two week period, and

the eight cases from these episodes being excluded from all subsequent analyses. Coders were trained to regard a victim's sexually-themed remarks to the cheater (e.g., "How many times did you have sex with her/him?"; "Was s/he better in bed than me?") as indicative of sexual jealousy and their emotionally-themed remarks (e.g., "Do you love him/her?"; "How could you love her/him?") as reflective of emotional jealousy.

The six coders had never taken an evolutionary psychology course, had limited or no familiarity with the discipline, and were not informed of the predictions. In fact, they were informed that they were assisting with an exploratory study, and that whatever was found might serve as a starting point for future confirmatory research. To further obscure the study's focus on sex differences in jealousy, the coders responded to dozens of other prompts about each case (e.g., the degrees of verbal and physical abuse, the cheater's and interloper's degrees of remorse, the physical attractiveness of each party). Most of these prompts came toward the end of the coding scheme, well after coders submitted their rating for the focal question concerning the victim's jealousy.

A total of 102 cases were analyzed; 60 involved female victims and 42 involved male victims. Each case was analyzed by at least three coders. If a discrepancy among the coders existed, the majority choice was the designated answer for that item. For cases analyzed by all coders, Randolph's multirater kappa was 0.7 and the average pairwise percent agreement was 83% for the focal question, a single-item used to test the sex-linked predictions. If the victim interrogated the cheater about the sexual or emotional nature of the affair, the coders answered the focal question: "Which aspect of the affair did the victim focus more on?" by selecting either sexual or emotional.

3. Results

The victim interrogated the cheater about the nature of the affair in 30 of the 42 cases involving male victims and in 45 of the 60 cases involving female victims. Common questions included: "Did you have sex with him?," "Do you love her?," and "Who do you love more?" As predicted, (1) men were more likely than women (57% vs. 29%) to focus more on the sexual aspect of their partners' infidelities, whereas (2) women were more likely than men (71% vs. 43%) to focus more on the emotional aspect of their partners' infidelities. This distribution of responses was significantly sex-differentiated, $\chi^2(1, N = 75) = 5.78, p = .016, \Phi = 0.28$ (see Fig. 1).

4. Discussion

Upon discovering that their mate had been unfaithful, men more so than women inquired more about the sexual nature of the extra-pair relationship, whereas women more so than men inquired more about the emotional nature of the extra-pair relationship. These results support Kuhle et al.'s (2009) contention that humans have sex-differentiated damage assessment strategies to investigate the nature of a partner's infidelity. Men and women differ in their jealous interrogations of unfaithful partners, and they do so in accord with expectations derived from their asymmetries in parental certainty and obligatory parental investment (Trivers, 1972). Although previous studies have found sex differences in jealousy using prospective and retrospective reports, this is the first study to demonstrate sex differences in romantic jealousy in vivo.

Contrary to DeSteno's (2010) claims (see also DeSteno & Salovey, 1996; DeSteno et al., 2002; Harris, 2002, 2003, 2005) that sex differences in jealousy are merely a methodological artifact of asking participants to forecast their upset over imagined infidelity

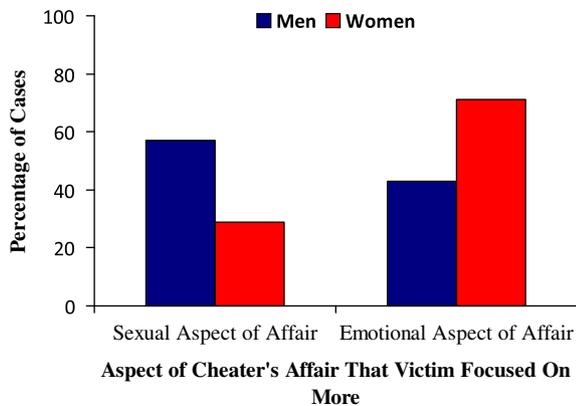


Fig. 1. Percentages of male and female victims on the reality program *Cheaters* whose interrogations of their unfaithful romantic partners focused more on the sexual or the emotional nature of the extra-pair relationships.

scenarios, the present study found sex differences in actual jealousy-fueled interrogations of unfaithful partners. These findings cannot be explained away as being due to a “format-induced decision strategy that rests upon an effortful and detailed analysis of the possible consequences of the two indiscretions” (DeSteno, 2010, p. 1355). The trained coders were not tasked with weighing the consequences of sexual and emotional infidelity and forecasting their personal upset. They simply evaluated the nature of each victim’s jealous interrogation of an unfaithful partner.

As with all reality-based television programs, two important validity questions to consider are whether the jealous behavior exhibited on *Cheaters* was real, and if authentic, whether such behavior would generalize to the wider population. Although a few have alleged that they were paid to play a staged role, this charge has been denied by both the program’s private investigator and executive producer (Nowell, 2002). As only a handful of people have made this claim during the show’s 10 year, 220 episode run, it is unlikely that the majority of the program’s 400–450 love triangles were staged. Furthermore, it is plausible that these individuals’ allegations are a means of damage control and impression management designed to counter the unseemly behaviors they exhibited on screen (in one case, exhibiting distress over contracting a sexually transmitted disease). Regardless, even if a few scenarios were staged, they would attest to how the producer’s conception of humans’ sex-linked reactions to infidelity align with evolutionary psychologists’ expectations based on paternity uncertainty and parental investment theory (Trivers, 1972), a finding noteworthy in itself. Although it is possible that the producer staged interrogations in accord with his stereotypical perception of sex differences in jealousy and his perception of what would resonate with an audience, such perceptions rest upon and reveal our evolved psychology. Popular culture such as *Cheaters* opens a window into human nature as “the patterns of culture that we create and consume, although not adaptations in themselves, reveal human evolutionary psychology” (Buss, 2012, p. 428).

With regards to external validity, although *Cheaters*’ victims are unlikely to be representative of the population at large, it is noteworthy that the sex-linked nature of their actual interrogations dovetailed in direction and magnitude with the sex differences in hypothetical interrogations found by Kuhle et al. (2009) in a sample of Northeastern U.S. college students.

As with all research, this study has limitations. But it is important to note two things. First, whereas all previously published studies of sex differences in jealousy are potentially limited by validity concerns associated with using retrospective and prospective measures, the design of this study avoided this pitfall. Second,

the novel methodology used in this study renders its potential limitations different from those of all other known studies. Despite a different set of potential limitations, the present study yielded results similar to those commonly found in past studies.

These results add to the growing evidence for sex differences in jealousy that transcend culture (Buss et al., 1999; Buunk, Angleitner, Oubaid, & Buss, 1996) and age (Shackelford, Michalski, & Schmitt, 2004; Shackelford et al., 2004). This evidence has been found using continuous measures (Schützwohl, 2007; Wiederman & Allgeier, 1993), forced-choice prospective measures (Kuhle et al., 2009; Schützwohl, 2006), and retrospective accounts of actual infidelity experiences (Edlund, Heider, Scherer, Farc, & Sagarin, 2006; Strout, Laird, Shafer, & Thompson, 2005). The evidence for evolved sex differences in jealousy is robust (Buss, 2012; Buss & Haselton, 2005).

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