To what extent are there sex-differences in elicitation of romantic jealousy?

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Abstract

This essay aims to determine to what extent there are sex-differences in romantic jealousy. Research suggests emotion is a biological phenomenon, elicited in response to an environmental threat. This is known as the Appraisal Theory of Emotion, whereby cognitive and physiological factors interact and produce an emotional state. It is thus proposed romantic jealousy is an emotion elicited by humans in response to the inference of sexual or emotional infidelity threatening a valued romantic relationship. Research suggests males and females experience this emotion in varying intensities and for different reasons. The evolutionary explanation for sex-differences in romantic jealousy posits that males and females are threatened asymmetrically to infidelity events because of their different mating and reproductive strategies. The social cognitive explanation suggests sex-differences occur because of the beliefs each gender has about the other. It infers the individual will feel more threatened by the infidelity event that infers the co-occurrence of the other. The sociocultural explanation posits sex-differences are the result of the gender roles promoted within society in terms of sexual liberty, power and labour. This essay proceeds to refute the inference of sex-differences in romantic jealousy, proposing they are merely the product of artificial methodology. Furthermore, the essay argues sex-differences in western culture could simply reflect gender division in power within society. Research suggests the observed sex-differences in romantic jealousy are also refuted in a homosexual sample, despite romantic jealousy being posited as a universal emotion. This essay proposes that analysis of polygamous relationships might further the understanding of romantic jealousy. The essay concludes that romantic jealousy is experienced universally, but heterosexual individuals experience sex-differences in jealousy as a result of the attitudes promoted within society, affecting the way in which each gender perceives the other.

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1. Introduction

1.1 Appraisal Theory of Emotion

A multitude of research has inferred the relationship between physiological arousal, cognitive appraisal and the elicitation of an emotional state. Smith and Lazarus (1990) described emotion as “a complex state in an organism… changes in the widespread character (breathing, pulse, gland secretion) and on the mental state (excitement or perturbation).” The Appraisal Theory of Emotion states that an organism will elicit physiological arousal in response to a change in the environment and thus differentiate between a state of pleasantness and unpleasantness (Ortony, Clore & Collins, 1990) in order to elicit the appropriate emotion (Ellsworth & Scherer, 2003). Essentially, the theory states that the organism is aware of the physiological arousal before an emotion is attached, which will thus allow the organism to cope with the implications of this change (Smith & Lazarus, 1990). However, it is important to acknowledge that this is just one theory of emotion, and despite being based on the observations of credible researchers; it favours the notion of determinism and nature, and fails to acknowledge individual differences in the elicitation of emotion.

1.2 The elicitation of romantic jealousy

Ortony, Clore and Collins (1990) suggest “the threat must be asserted in order for the body to respond to the emotion provoked”. Romantic jealousy is a state that it motivated by a perceived threat to a valued relationship, motivating the “jealous” individual to behave in a manner to reduce or counter the threat (Daly et al., 1982). Research into romantic jealousy poses two threats to an individual in order to evoke romantic jealousy; emotional infidelity; the perceived threat to a romantic partner’s commitment to the relationship, and sexual infidelity; the perceived threat to sexual exclusivity in a romantic relationship (Cramer et al., 2001). The differentiation of sexual and emotional suggests that they are isolated events, which does not reflect true infidelity in romantic relationships as they can happen simultaneously.

The research presented in this essay will provide a valuable examination of observed sex-differences in the elicitation of romantic jealousy. Extensive research has been conducted in psychology regarding sex-differences, as despite the physical differences between males and females being obvious, the psychological are more difficult to identify (Maccoby, 1975). Research suggests that emotion is a biological reaction to an environmental threat, thus a phenomenon experienced by all humans. Despite this, research has observed sex-differences in the elicitation of romantic jealousy in response to a threat, inferring that there are other factors that influence an individual’s emotional state.
1.3 Sex-differences in psychology

The evolutionary perspective explains sex-differences in psychology in terms of asymmetries in mating efforts between males and females. Females invest heavily in the reproductive effort as they experience internal female fertilisation and gestation (Buss et al., 1992). However, because humans are bipaternal species, investment from both parents is essential for reproductive success. Therefore, females desire males who exhibit cues suggesting security and access to resources that are essential for reproductive success (Alexander & Noonan, 1979). Conversely, males endeavour to mate with females who have attributes that suggest reproductive value and fertility; hence, males value physical and behavioural attributes that are often associated with youth (Symons, 1979). Males invest heavily in the mating effort to obtain reproductive success (Buss et al., 1992), whereas females invest more in the reproductive effort, and thus are more selective of mates (Trivers, 1972). The major limitation of this explanation is the lack of falsification; this perspective is merely based on theory.

The social cognitive perspective states that sex-differences in psychology arise from the different ways in which each gender perceives the other. Bandura (1986) outlines the social cognitive perspective in terms of “triadic reciprocal causation”, that is the interaction of personal determinants, behaviour patterns and environmental factors. This perspective suggests that societal and environmental constructions influence an individual to make judgements of gender-appropriate behaviour. These behaviours are confirmed when an individual is praised for the elicitation of “masculine” or “feminine” behaviour, thus validating their gender perceptions (Maccoby, 1975). This model influences the way in which information is cognitively processed and therefore the way in which each gender perceives the other (Bussey & Bandura, 1999).

The sociocultural explanation posits the notion that sex-differences are the result of gender socialisation within a society. Wood and Eagly (2002) suggest that the division of labour and power influences gender roles in society, thus the biosocial model infers that each gender adopts the characteristics outlined in the role description respective to each gender. Testament to this notion, Maccoby (1975) argues that individuals within a society observe and replicate the behaviour of their same-sex models. Furthermore, the emphasis on gender division within a society impacts on the psychology of individuals, research reveals that fewer sex-differences are observed in the Dutch culture because they reject gender division (Hofstede, 1994). Thus, the sociocultural perspective argues that sex-differences are the result of different societal pressures inflicted on males and females within a culture.
2. Evolutionary explanation

The evolutionary explanation for sex-differences in psychology appeals to the asymmetries in the mating and reproductive effort between females and males. Research suggest that females pursue males with access to resources and security, which promote reproductive success (Alexander & Noonan, 1979), whilst males desire females with attributes that allude to reproductive value and fertility (Buss, 1987; Symons, 1979). Thus, the evolutionary perspective suggests that females become romantically jealous as they compete with intra-sex competitors in order to obtain security and resources from a male to attain a genetic advantage, whilst males exhibit romantic jealousy to reduce paternal uncertainty (Buss, 1989). Whilst these explanations are seemingly plausible, they are not based on empirical evidence because of the nature of evolutionary psychology and thus fundamentally limited.

Research has suggested an effective way for determining sex-differences in romantic jealousy is through the adoption of the “forced-choice method” that was first introduced by Buss et al (1992). The researchers asked participants to imagine a situation whereby their partner was becoming interested in an intra-sex rival, and were asked to indicate which infidelity event caused them greater distress; a) imagining their partner forming a deep emotional attachment to that person (emotional), or b) imagining their partner enjoying passionate sexual intercourse with that other person (sexual). The research revealed that females were more distressed by emotional infidelity, and males by sexual infidelity than females. The evolutionary perspective explains this phenomenon as females compete to exhibit reproductive cues (Buss, 1989), therefore feel more upset and distressed by emotional infidelity as it suggests that the male has become more invested in the intra-sex rival. Conversely, males become more “upset and threatened” toward the threat of cuckoldry, i.e. loss of mating effort, and thus jealousy is evoked in order to fend off alien insemination and reduce the threat of paternal uncertainty (Buss, 1989). The forced-choice method is flawed as the participant must differentiate between the two events to determine which is more distressing, a method that does not mirror true infidelity events in romantic relationships.

As previously discussed, research has observed that emotions cause physiological arousal, a phenomenon that has been investigated in Buss’s research (1992). Using the forced-choice method, it as found that women showed greater electro thermal activity towards emotional infidelity, and men towards sexual infidelity. Male participants also had a significantly increased pulse rate towards sexual infidelity (Buss et al., 1992). As suggested by Smith and Lazarus (1990) a change in the “widespread character” infers a change in the emotional state. The fact that both genders experience physiological arousal posits that romantic jealousy is a universal emotion. The
differences in the elicitation of physiological arousal provides empirical evidence for sex-differences in romantic jealousy, it does not however explicitly provide support for the evolutionary perspective as the researchers claimed. However, methodological triangulation is maximised in terms of the forced-choice method and physiological investigation, which provides greater reliability.

Evolutionary psychology is an appealing paradigm of thought as it infers that humans are biologically determined to behave in a certain way, that humans cannot be blamed for their susceptibility to romantic jealousy. This however, is also a limitation of the evolutionary perspective; the inference of biological determination. It does not acknowledge the influence human cognition and culture has on the reception and channelling of emotions such as jealousy, nor does it acknowledge the impact an individual’s nurture has on emotional development. The explanation is fundamentally flawed as it lacks falsification, therefore cannot be validated. It also appeals to the assumption that humans are solely motivated by the need to produce fertile offspring and does not consider individuals who chose not to reproduce yet still elicit romantic jealousy. Despite these limitations, the evolutionary theory proposes a plausible perspective for sex differences in jealousy as it suggests they arise from different threats derived from asymmetries in mating patterns.

3. Social cognitive explanation

The social cognitive perspective explains sex-differences in terms of the perceptions that each gender holds about the other due to socialisation. This notion is extrapolated in the elicitation of romantic jealousy as outlined in the “Double-shot hypothesis”. DeSteno and Salovey (1996) proposed the idea that individuals are more threatened by infidelity that infers co-occurrence of the other infidelity event, thus are more threatened by the “double-shot” of infidelity. When presented with the forced-choice method (Buss et al, 1992), the researchers observed that females were more threatened by emotional infidelity because emotional infidelity represents the co-occurrence of both emotional and sexual infidelity in males, as opposed to just emotional infidelity. Males, however, reported indifference to the distress levels in both infidelity events. This theory is appraised as it acknowledges that sexual and emotional infidelity may not be isolated events in a romantic relationship.

The results observed in this research are explained by the Belief hypothesis (Harris & Christenfeld, 1996). Females believe male partners can have sex without being in love, but are less likely to be in love without having sex. Research by Ward & Voracek (2005) reported male indifference to both
types of infidelity is due to the belief that it is unlikely for females have sex without being in love, but once in love are likely to engage in sexual intercourse. This explanation suggests males and females do not necessarily care less about the other infidelity event; rather one is more distressing than the other as it implies the co-occurrence of the other (Harris & Christenfeld, 1996). It must be acknowledged that these “beliefs” are culture specific, and thus this explanation is restricted to the sample from which it was obtained; American undergraduate students (Ward & Voracek, 2005; Harris & Christenfeld, 1996). The majority of the research conducted in romantic jealousy mirrors this sample due to convenience and expense, but lacks representational generalisability.

Another social cognitive explanation for this result is that males and females value relationships for different reasons, and hence are threatened differently. After employing the forced-choice method, Wierderman and Allegier (1993) found females were more distressed by emotional infidelity because they value intimacy more than males, thus were more likely to become distressed over losing their male’s counterpart’s love. Males, however, were more distressed by sexual infidelity as they were more likely to exercise concern over possible sexual involvement. Reflexivity must be acknowledged in this research, as despite it being seemingly valid within a western culture, assumptions cannot be made about other cultures. For example, Sweden is described as more sexually egalitarian than most western cultures (Wiederman & Kendall, 1999), hence the notion females are unlikely to have sex without being in love and females value intimacy may not be upheld in the Swedish culture. In these circumstances, the social-cognitive explanation would be completely debunked, as males would not believe emotional infidelity implies sexual infidelity. The perspective is therefore limited by its cultural bias and lack of representational generalisability.

The social cognitive explanation has been criticised as it fails to explain why sex differences exist. The perspective appeals to the notion that individuals form ideas about the other gender due to socialisation, however, clarification of what socialisation is, and to what extent it influences individuals is left undisclosed. This explanation argues that individuals form perceptions of the other gender due to the influence of socialisation, and thus create assumptions about gender-specific behaviour within a romantic relationship. The asymmetrical way in which these perceptions are generated forms the foundation for the social cognitive perspective.

4. Sociocultural explanation

The sociocultural explanation suggests sex-differences in psychology arise due the differences in the gender roles prescribed by society. There are two main ideas in the sociocultural explanation of sex-differences in romantic jealousy; sexual egalitarianism and gender division within a society.
Sexual egalitarianism refers to a culture being more “sexually liberal” in regards to extramarital sexual and romantic relations. Buunk et al (1996) hypothesised that more sexually liberal cultures would have less significant gender differences due to the promotion of sexual equality. The researchers used the forced-choice method (Buss et al., 1992) and found there were only moderate sex-differences in romantic jealousy within the Dutch and German cultures, and large sex-differences in the American sample. The results were explained as the Dutch and German cultures promote sexual equality, and the Dutch in particular disregard sex differences of any magnitude (Hofstede, 1984). The American culture, like all western cultures, “disapproves of extramarital relationships under all circumstances” (Singh, Walton & Williams, 1976), and thus greater sex-differences were observed. Supporting these results, Eagly & Wood (1999) posit greater gender equality within a culture should produce less gender divisions. Thus, the research supports the notion that in societies where sexual egalitarianism is promoted, less significant sex-differences are observed due to promotion of gender sexual equality. Buunk et al (1996) is criticised however, as the results obtained cannot be justly compared because the samples from each culture differ in age, which could influence their “sexually liberal” attitudes.

Reduced sex-differences in sexually egalitarian cultures are also explained in terms of societal pressures of mating patterns in males and females. In sexually egalitarian cultures, men devote their time to several women and thus are less sexually jealous over one woman (Buunk et al., 1996). This infers females are more self-reliant and obtain investment from a large number of males, therefore are less emotionally jealous of one man (Buunk et al., 1996). A limitation of this explanation is that it consults mating patterns, phenomena that cannot be supported with empirical evidence. This research suggests jealousy is an etic concept; a universal emotion, but the sex-differences and reactions to jealousy evoking situations are emic, thus relative to the culture. This notion supports the idea of emotion as a biological phenomenon that all organisms experience, but differently due to environmental factors. However, reflexivity must be acknowledged as much of this research is of western origin, meaning it could be influenced by the sexual conservativeness of the culture (Singh, Walton & Williams, 1976). Despite research concluding jealousy is “emic”, as it exists in several cultures, it must be considered whether jealousy is regarded in the same manner and magnitude across cultures.

Despite the supporting research for the influence of sexual egalitarianism, research conducted by Wiederman & Kendall (1999) found there were no cultural differences in the sexual conduct for males and females between the United States and Sweden, despite the different sexual attitudes. Despite acknowledging differing cultural attitudes, the research remains nomothetic in that it attempts to establish generalisations about an entire culture. This is evident as individual
responses to a stimulus are quantitatively processed to classify a group of people as holding a specific belief, which may not be applicable to all individuals of said group.

Another sociocultural explanation for sex-differences in romantic jealousy is in relation to the asymmetries in the gender roles prescribed by society. Eagly and Wood (1999) suggested the American culture harbours a sex-typed division in terms of domestic duties and labour, leading to strong sex-differences. Females in an American culture become more dependent on a male’s earning and elicit more intense emotional jealousy due to this resource dependence. However, a large proportion of the research presented in this essay was conducted in a time where there was greater gender division within the 20th century western society, particularly in relation to power and labour. Changing attitudes in western society in terms of greater gender equality and the increased number of females in the workforce imply greater economic independence, and thus females would be less reliant on males to provide. If research were conducted in a modern context, this explanation may not be upheld.

Ergo, the sociocultural explanation maintains that the sex-differences in response to romantic jealousy are the result of gender division and the sexual values of a culture. The sociocultural perspective differs from the former two as it suggests jealousy is a product of nurture; behaviour learnt from our environment rather than a product of mating strategies or wired cognition. The research concludes jealousy is an etic concept as it exists in all cultures investigated, however, the intensity of such jealousy and the sex-differences are relative to each culture, therefore is emic (Buunk et al., 1987).

5. No sex-differences in jealousy

Research thus far has testified the existence of sex-differences in jealousy, however; in our pursuit for reasoning sex differences, have sex-differences in romantic jealousy been created?

5.1 Sex-differences as a product of artificial methodology

The lack of methodological triangulation in the research conducted into sex-differences in jealousy is a major limitation in the reliability and validity of results. DeSteno and Salovey (2002) proposed the sex-differences being observed in romantic jealousy were merely the result of artificial methodology lacking ecological validity. The research cited in this essay differentiated the infidelity events through the use of the forced-choice method (Buss et al. 1992), which presented emotional and sexual infidelity simultaneously and asked participants to chose between them. In order to evaluate the
validity of this method, DeSteno and Salovey (2002) used the forced-choice method and a continuously scaling method that presented the infidelity events sequentially and asked participants to evaluate the level of upset and jealousy caused by said infidelity event. The results revealed that when the forced-choice method was used, sex differences were observed in the manner consistent with previous findings, however, when the continuous scaling measure was used, both males and females reported to be more distressed by sexual infidelity. Zengel, Edlund & Sagarin (2012) supported the results obtained in this investigation as they found insignificant results for continuous measures, but sex-differences were upheld in the forced choice method.

The observed results were explained by consulting the cognitive effort involved in differentiating between the two infidelity events. When DeSteno and Salovey (2002) implemented a cognitive load at the time of differentiation, no sex-differences were observed. This suggests that at the most basic cognitive level; there are no sex differences in the response given by males and females in relation to the two infidelity events. Rather, sex-differences emerge in response to a conscious cognitive effort that begs participants to evaluate the implications of each. This implies that the plenitude of research reporting sex-differences in jealousy is fundamentally limited by the methodology employed, questioning the validity of the research. This suggests that sex-differences in jealousy are merely the result of artificial methodology that does not represent actual decision-making. However, there is a lack of research that validates the continuous scaling method as opposed to the multitude of research that consults the forced-choice method.

5.2 Sex-differences as a reflection of a patriarchal society

An alternative explanation of sex-differences in romantic jealousy suggests that the observed phenomena are merely reflections of patriarchal society. White (1980) proposed that jealousy reflects the relative gender roles within a relationship and the position of relative dependence, thus females were more likely to become jealous if they were in a “low-power position”. Interestingly, Zengel, Edlund & Sagarin (2012) found that in relationships where the female assumed the dominant position, they displayed an increase in jealousy in response to sexual infidelity. Reflecting the social mould implemented by patriarchal societies results in a correlation between dominance and sexual infidelity rather than males and sexual infidelity. This suggests that research promoting gender-differences in romantic jealousy endorse the values of a patriarchal western society. Further research is restricted, however, as there are a limited number of matriarchal societies from where contradictory research could be obtained. Reflexivity must be employed as the perception of a “patriarchal society” is from a western viewpoint, and the same standards may not be upheld in other cultures. This perspective claims that romantic jealousy may only extend to societies where there is substantial gender division in power.
5.3 Sex-differences not upheld in homosexuals

The majority of research conducted into sex-differences in romantic jealousy reflects heterosexual relationships. Research conducted by Sheets and Wolfe (2001) revealed that heterosexual women, lesbians and gays are more distressed by a partner’s emotional than sexual infidelity, whereas both distress heterosexual men equally. The research reveals that homosexual males mirror the pattern of heterosexual women because homosexual males face no reproductive threat of sexual infidelity due to the impossibility of sexual reproduction. The elicitation of emotional infidelity is also of little advantage for homosexual males, as they do not rely on their partner to provide resources and security. Thus, when research is extrapolated beyond the heterosexual sample, the evolutionary theory is not upheld.

Similarly, the sociocultural explanation does not withstand this sample. There is no disparity in the gender roles in homosexual unions, yet homosexual females and males are threatened by emotional infidelity like heterosexual females, therefore no sex-differences. Further analysis is restricted however, as the forced-choice method does not allow for analysis on the absolute levels of romantic jealousy in each group. Despite this, the research has contributed a valuable criticism to the sociocultural explanation for sex-differences in romantic jealousy. This research also suggests that sex-differences in romantic jealousy do not extend to homosexuals.

5.4 Polygamy

Despite many areas being evaluated in relation to sex-differences in romantic jealousy, romantic jealousy within polygamous relationships has not been evaluated. Polygamists in western cultures claim that “jealousy is learnt, not innate and can be overcome…polygamists even believe that jealousy can be transmuted to a feeling of joy, experienced when you see you partner enjoying the love of someone else” (Maley, 2013). This claim was obtained from a newspaper article, thus has little psychological validity, however, further research into polygamous relationships could provide greater insight into sex-differences in romantic jealousy.

6. Conclusion

Thus, the conclusion reached by this essay is that romantic jealousy is a biological response to an environmental threat experienced by all humans, irrespective of sexual orientation, culture and gender. Due to the absence of gender asymmetries in homosexual relationships, sex-differences in romantic jealousy are not observed. However, individuals within heterosexual relationships are
motivated by the biological need to reproduce, and therefore the elicitation of romantic jealousy is a defensive mechanism enforced to enhance reproductive success in heterosexuals. The intensity and reasons for romantic jealousy are relative to the culture as a result of the observed gender roles within a society. These beliefs regarding gender roles could be in relation to power, labour and sexual liberty. The essay also concludes that romantic jealousy is fundamentally a product of human biology and cognition, but the intensity of jealousy could be a learnt behaviour. This conclusion is based on the Appraisal Theory of Emotion, which despite being widely accepted is not the only explanation for the elicitation of emotion.

The essay also discussed a methodological limitation in that a majority of the research used the forced-choice method. DeSteno and Salovey (2002) concluded that males and females experience romantic jealousy in the same manner at the most basic cognitive level, thus the forced-choice mechanism is a misrepresentation of true phenomena. However the Appraisal Theory of Emotion acknowledges that emotion is the interaction of cognitive and physiological factors, and thus alternative research methods (continuous scaling method) proposed by DeSteno and Salovey (2002) merely evaluate romantic jealousy at the reductionist level. The forced-choice method, however, exposes the sex-differences that exist. The essay poses unresolved question in terms of whether sex-differences in romantic jealousy exist in polygamous relationships, even when there is more than one individual of the same gender. The explanation could also benefit by further research into the relationship between dominance in a romantic relationship and the threat posed by sexual infidelity, especially in terms of power and sexual dominance.

Reflexivity must be acknowledged as the majority of research evaluated in this essay is conducted from a western viewpoint. This could be due to the fact that western cultures object to extramarital relationships of any magnitude (Singh, Walton & Williams, 1976), and thus are interested in how romantic jealousy is evoked in response to the inference of infidelity, resulting in a multitude of research. Despite many of the conclusions in the social cognitive and sociocultural explanations being valid within a western viewpoint, the same conclusions cannot be extrapolated to other cultures, presenting a major limitation to the explanations.
References


