

## **Perception of Emotional and Sexual Infidelity among Married Men and Women**

**Anum Urooj and Anis-ul-Haque**

Quaid-i-Azam University

**Gulnaz Anjum**

Friedrich-Schiller University

The current study was conducted to study the gender differences in the perception of commission of infidelity, the most distressing form of infidelity, and guilt feelings related to infidelity. Causes, approval, and consequences of emotional and sexual infidelity among married men and women were also examined. Initially, hypothetical scenarios (Buss, Larsen, Westen, & Semmelroth, 1992) which were culturally modified were used to collect data from 300 married participants. Results showed that men perceived to commit sexual infidelity more than women, whereas, women perceived to commit emotional infidelity more than men. Men perceived sexual infidelity and women perceived emotional infidelity to be the most distressing form of infidelity. Moreover, men did not perceive guilt in response to any kind of infidelity, whereas, women perceived guilt in response to both kinds of infidelity. Men perceived both emotional and sexual dissatisfaction to be the causes of infidelity, whereas, women considered emotional dissatisfaction to be the primary cause. Finally, men perceived sexual infidelity, whereas, women perceived emotional infidelity to be the most difficult to forgive form of infidelity.

*Keywords.* Perception, emotional infidelity, sexual infidelity, married couples, forced-choice method, hypothetical scenarios

There is no universal definition of infidelity and it has been defined in different ways by different people due to differences in the

---

Anum Urooj and Anis-ul-Haque, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan.

Gulnaz Anjum, Institute of Social Psychology, Friedrich-Schiller University, Germany.

Correspondence concerning this article should be addressed to Anis-ul-Haque, National Institute of Psychology, Quaid-i-Azam University, Islamabad, Pakistan. E-mail: haqanis@yahoo.com

perception of men and women with respect to their extramarital affairs (Munsch, 2012). Infidelity or simply 'cheating' among partners has been defined in literature by multiple terms such as extramarital sex, extramarital behavior, extradyadic involvement, nonmonogamy, extramarital coitus, and polyamory depending on the features of a particular study. Infidelity has long been equated with extramarital sex referring to sex with someone other than the primary partner (Atkins, Baucom, & Jacobson, 2001). However, research shows that infidelity is not only sexual, but emotional in nature as well; and has been found to occur in marital, dating, and cohabiting relationships (Feldman & Cauffman, 2000; Lishner, Nguyen, Stocks, & Zillmer, 2008; Thompson, 1983). According to Berman and Frazier (2005), infidelity is "a romantic, sexual, or emotional relationship with someone other than the primary partner that was kept secret from the partner and that would have been unacceptable to the partner if s/he had known" (p. 1620).

The phenomenon of infidelity has been explained through a number of theoretical perspectives, but majority of the empirical research on infidelity takes into account the evolutionary psychological perspective (Munsch, 2012). According to Buss, Larsen, Westen, and Semmelroth (1992), species in which females have internal mechanisms of conception, males encounter an adaptive problem of paternity uncertainty of offspring. Men suffer from substantive reproductive cost due to paternity uncertainty, that is the failure of earlier reproductive efforts which includes time, energy, risk, and costs of reproductive chances. The adaptive pressure of uncertainty in the paternity of offspring is increased in species where men invest their efforts in raising their children (Trivers, 1972). Men put themselves at stake by spending resources on offsprings that do not biologically belong to them. Women, as compared to men, do not come across the adaptive pressure of maternity certainty. However, in species which require the investments of both male and female in the upbringing of offsprings, females jeopardize the prospective loss of time, reserves, and loyalty from the partner if he stops or directs assets to other potential females (Buss, 1988; Thornhill & Alcock, 1983; Trivers, 1972). A cuckquean (a woman with an adulterous husband) faces the adaptive pressure of rechanneling of a male's investment to another mate and her offsprings, which is exacerbated in an environment where offsprings suffer without investment from both parents.

Jealousy offers solution to distinct adaptive pressures faced by men and women. According to jealousy as specific innate module model (JSIM), jealousy is defined as an emotional "state that is

aroused by a perceived threat to a valued relationship or position and motivated behavior aimed at countering the threat” (Daly, Wilson, & Weghorst, 1982, p. 11). The model advocates that there is a difference between men and women in their comparative compassion to actual or potential emotional and sexual cheating by the partner. Jealousy in women, as a reaction to the partner’s emotional infidelity, is larger in comparison to men because of the adaptive pressure of resource loss faced by women. On the other hand, jealousy in men, as a reaction to the partner’s sexual infidelity, is larger in comparison to women because of the adaptive pressure of paternity uncertainty faced by men (Barrett, Frederick, Haselton, & Kurzban, 2006; Buss & Haselton, 2005).

Majority of the research in the area of infidelity makes use of hypothetical scenarios and forced-choice dilemmas to assess disparities between men and women as a reaction to their spouse’s infidelity (Buss et al., 1999; Buunk, Angleitner, Oubaid, & Buss, 1996). However, research on sex differences in infidelity based on evolutionary paradigm has led to inconsistent findings. Some researchers have argued that the sex differences in infidelity are a mere artifact of measurement or are limited to hypothetical scenarios. Nevertheless, there are evidences which support the JSIM model in continuous measures as well as in actual infidelity scenarios (Barrett et al., 2006; Brase, Caprar, & Voracek, 2004; Buss & Haselton, 2005; Buss et al., 1999; Buunk et al., 1996; de Souza, Verderane, Taira, & Otta, 2006; Harris, 2003; Sagarin, 2005; Sagarin et al., 2012; Sesardic, 2003; Ward & Voracek, 2004).

Besides focusing on sex differences in jealousy, researchers have also examined other factors associated with infidelity. Fisher, Voracek, Rekkas, and Cox (2008) conducted a study to explore sex differences in guilt resulting from infidelity. It was found that men feel guiltier following sexual infidelity, whereas, women feel guiltier following emotional infidelity. The findings also showed that both men and women believed that their partner would have a more difficult time forgiving sexual infidelity. Moreover, women but not men reported that sexual infidelity would most likely lead to relationship dissolution. Babin and Dindia (2005) studied sex differences in the commission of infidelity, justifications for infidelity, and approval of infidelity in 732 college students. It was found that men do not commit infidelity more than women and no sex differences were found regarding the type of infidelity (emotional, sexual, and both); both genders reported equal committing. Moreover, women were more likely to cite emotional dissatisfaction as a reason for committing infidelity; no differences were found regarding the

other three justifications (sexual dissatisfaction, both emotional and sexual dissatisfaction, other). Men rated infidelity as more acceptable than women, although, both sexes overwhelmingly disapproved of it.

Although, a plethora of research is available on infidelity in the Western world, there seems to be a dearth of literature on the issue in the Asian world, particularly, the South Asia region. Pakistan is one such country where, although, this issue is highlighted in media, there is lack of empirical research and only a single multi-method study attempted to explore the sex differences in the perceptions of partner's infidelity among married working adults (Anjum, 2010). The current research, thus, attempted to fill this gap by addressing the inconsistencies in the research findings in infidelity literature by designing an indigenous research and incorporating the modified forced-choice measures in hypothetical scenarios. Besides, comparatively less research has been carried out on sex differences in other responses to infidelity, such as guilt (see e.g., Fisher et al., 2008); forgiveness and/or breakup (Shackelford, Buss, & Bennett, 2002); and other issues surrounding infidelity, such as commission of infidelity, justifications, consequences, and approval of infidelity (e.g., Babin & Dindia, 2005).

The aim of the current study was to understand infidelity and its aspects by taking into account all these factors. To meet the objectives, the research was conducted in two parts. In the first part, focus group discussions and in-depth interviews were conducted to build an understanding about the concept of infidelity in local context and the qualitative data was analyzed using hybrid thematic analysis. The second part of the study was conducted in two phases. In the first phase, hypothetical scenarios with forced-choice measures developed by Buss et al. (1992), as used in subsequent research, were modified on the basis of results obtained in the first part in order to make them culturally appropriate. In the second phase, data were collected from a large sample by using the vignettes to test the hypotheses. Following hypotheses were developed to meet the objectives of the second phase of the study:

1. Men will be perceived to commit sexual infidelity more than women, whereas, women will be perceived to commit emotional infidelity more than men.
2. Men will perceive greater distress in response to sexual infidelity, whereas, women will perceive greater distress in response to emotional infidelity.

3. Men will be more likely to perceive guilt feelings as a result of sexual infidelity, whereas, women will be more likely to perceive guilt feelings in response to emotional infidelity.
4. Women will be more likely to give emotional dissatisfaction as a cause of infidelity, whereas, men will be more likely to give sexual dissatisfaction as a cause of infidelity.
5. Men will rate infidelity (sexual and emotional) as more acceptable than women.
6. Men will perceive greater difficulty forgiving sexual infidelity, whereas, women will perceive greater difficulty forgiving emotional infidelity.
7. Men will perceive sexual infidelity to be more likely to lead to relationship dissolution, whereas, women will perceive emotional infidelity to have a greater likelihood to lead to relationship dissolution.

### **Method**

Part 1 was qualitative in nature and employed focus group discussions and in-depth interviews as the primary data collection methods. The objective of this part was to build an understanding about the concept of infidelity in local context.

### **Sample**

Both male and female married participants were considered for participation in focus group discussion and in-depth interviews. Purposive sampling technique and snowball technique were used to select participants. The age range of the participants was between 24 to 37 years and graduation was considered the minimum education. Five focus group discussions and 5 in-depth interviews (with couples) were conducted. Focus group discussions comprised of 5-7 individuals, whereas, in-depth interviews comprised of 10 individuals. Two focus group discussions were conducted with men and women each; and one comprised of both men and women.

### **Instrument**

**Interview/discussion guidelines.** Prior to conducting in-depth interviews and focus group discussions, a semi-structured

interview/discussion guideline was prepared based on extensive literature review and expert opinions. It consisted of question on commission of infidelity; responses to sexual and/or emotional infidelity; distress of jealousy and other responses like anger; hurt, sadness, disgust, guilt, and the causes of committing infidelity; approval of sexual and emotional infidelity; and the consequences of infidelity and its effects on primary relationships. A committee approach was used to get feedback on the initial guideline from gender experts and qualitative research experts and their suggestions were incorporated. The basics of the guideline were translated into Urdu language to build a good rapport among participants and to get more genuine responses.

### **Procedure**

Participation was kept voluntary and informed consent was taken from individuals to participate in the study. Rapport was built with the participants and they were told that the study was designed to investigate perception about infidelity and related concepts and would be used only for academic purposes. The final interview guideline along with its translated version was used to collect data. Each focus group discussion or in-depth interview lasted for 45 minutes on the average. In case of in-depth interviews, a break of ten minutes was given and interview with each couple was held in succession, so that they could not exchange notes. After the collection of data, notes were transcribed manually and hybrid thematic analysis was applied to generate initial codes and themes.

Part II of the study was conducted in two phases. In the first phase, hypothetical scenarios with forced-choice measures developed by Buss et al. (1992) were modified on the basis of results obtained in the first part in order to make them culturally appropriate. Buss et al. (1992) conducted a study to test the hypothesis that men and women differ in distress in response to different forms of infidelity. They initially asked the participants to imagine that the person with whom they have been seriously involved became interested in someone else. They were then asked that what would distress or upset them more: (a) Imagining your partner forming a deep emotional attachment to that person; (b) imagining your partner enjoying passionate sexual intercourse with that other person. In the second phase, these vignettes were used to collect quantitative data for hypotheses testing.

### **Phase I: Vignette Development**

The first phase was carried out to develop a quantitative instrument to compliment qualitative data with culturally relevant scenarios and to assess the acceptability of these hypothetical scenarios and forced-choices among the participants of focus group discussions and in-depth interviews.

**Sample.** This phase comprised of participants of focus group discussions and in-depth interviews of Part I of the study who had the same sample characteristics as the participants of the final study. They were requested to give their feedback on the vignettes initially developed by the researchers with the help of literature review and the qualitative data obtained in Part I of the study. Their feedback was incorporated to develop the final version of the vignettes (see Appendix).

**Procedure.** To fulfill the objectives of the research, different forms of scenarios were developed. The first scenario was used to assess partner's infidelity and the second scenario was used to assess self-infidelity. After the initial development, all vignettes were shared and discussed with the same participants of focus group discussions and in-depth interviews and their suggestions were incorporated to develop revised version. Finally, the revised versions were shared with two postgraduate scholars for committee approach and final versions were developed for acquisition of quantitative data.

### **Phase II: Hypotheses Testing**

This phase of the second part of the study was conducted to test the hypothesized relationships.

**Sample.** Data were collected from 300 married participants (Husbands = 150 and Wives = 150) from Rawalpindi and Islamabad. Purposive sampling and snowball technique were used to select participants. Age of the participants was between 24-37 years and Bachelors was considered to be the minimum education to participate in the study. Both working and nonworking participants were represented.

**Instrument (Vignettes).** Vignettes developed in the first phase of the second part of the study were used to collect data from a large sample. Separate scenarios were developed for men and women. The first scenario given to men and women was similar in all respects, except that it pertained to opposite sex and was meant to collect data

on partner's infidelity. The second scenario was similar to the first one except that it pertained to same sex and aimed at collecting data on self-infidelity. Moreover, the scenarios contained relatively vague and ambiguous information to prime the personal perception of participants in order to get genuine responses. At the end of each scenario, there were questions to tap different aspects of infidelity like behaviors constituting infidelity, commission of infidelity, responses to infidelity, causes and consequences of infidelity, and approval of infidelity. There were two kinds of responses in the questions, one was categorical, with three or four options for first three questions for scenario 1; and other was based on two questions rated on 7-point Likert-type scale ranging from 1 (*not acceptable*) to 7 (*extremely acceptable*). For second scenario, there were only three questions with categorical responses having three or four options.

**Procedure.** Participation in this study was voluntary and informed consent along with demographic information was taken from the individuals to participate in the study. They were told that the study was designed to investigate their understanding about the phenomenon of infidelity and would be used only for academic purposes. Moreover, the participants were given the choice to discontinue participation in the study at any stage. The vignettes developed in the second phase of the study were used to collect data. Participants were instructed to answer all the questions given at the end of hypothetical scenarios. After the completion of vignette, each participant was debriefed by explaining the purpose of the research and the expected results of the study. Each participant was thanked and told to use the contact information provided on the consent form, in case of experiencing any discomfort as a result of participation in the study or if they were interested to acquire additional information about the research. After the complete collection of data, the filled vignettes were scrutinized for any missing data before proceeding to final analysis.

## Results and Discussion

To find out gender differences in perceiving emotional and sexual infidelity among married couples, chi-square test was used to analyze data and the results are reported in the following tables.



Table 1  
*Gender Differences in Perception of Commission of Infidelity, Distress Response, and Infidelity Forms Most Difficult to Forgive (N = 300)*

Categories	Infidelity				$\chi^2$	<i>p</i>
	Gender	Emotional	Sexual	Both		
Type of infidelity the spouse more likely to engage in	Men	12	98	40	163.50	.00
	Women	119	11	20		
Perception of distress responses	Men	13	110	27	16.92	.00
	Women	118	12	20		
Infidelity most difficult to forgive	Men	15	97	41	118.28	.00
	Women	101	17	32		

*Note.* *n* for men and women was 150 each. *df* = 2.

Table 1 show that there is significant sex difference in the perception of commission of infidelity among married couples. Out of 150 men, 98 perceive that spouse is more likely to engage in sexual infidelity; whereas, out of 150 women, 119 perceive that spouse is more likely to engage in emotional infidelity. Therefore, first hypothesis of the study is supported. Moreover, these findings are in line with previous researches (Wiederman, 1997; Wiederman & Hurd, 1999).

There is significant sex difference in the perception of most distressing form of infidelity; 110 men perceive sexual infidelity to be the most distressing aspect of infidelity; whereas, 118 women perceive emotional infidelity to be most distressing. Therefore, 2<sup>nd</sup> hypothesis of the study is also supported. Similar findings have been reported by Anjum (2010), de Souza et al. (2006), Harris (2003), Sagarin (2005), and Takahashi et al. (2006).

According to the results shown in Table 1, there is a significant sex difference in the perception of forgiveness decisions in response to infidelity. More men perceive sexual infidelity to be more difficult to forgive, whereas, more women perceive emotional infidelity to be more difficult to forgive form of infidelity. Therefore, 6<sup>th</sup> hypothesis of the study is supported that men perceive sexual infidelity and women perceive emotional infidelity more difficult to forgive. Similar findings have been reported by Shackelford et al. (2002). Moreover, these findings lend support to the theory of evolved sexual differences (Buunk et al., 1996). According to this theory, a partner's sexual infidelity is a greater adaptive pressure for men than women, because of the risk of investing resources in a rival's offspring. For women, a partner's emotional infidelity is of greater adaptive pressure, because of the fear of diversion of resources and commitment. This explains

why men find sexual infidelity relatively difficult to forgive, whereas, women consider emotional cheating by the partner difficult to forgive (Buss et al., 1992; DeSteno & Salovey, 1996; Wiederman & Kendall, 1999).

Table 2  
*Sex Differences in the Perception of Guilt Feelings and Form of Infidelity More Likely to Lead to Break up with the Spouse (N = 300)*

Categories	Gender	Infidelity				$\chi^2$	<i>p</i>
		Emotional	Sexual	Both	None		
Making person more guilty	Men	27	21	24	78	117.5	.00
	Women	9	35	99	7		
Likely dissolution	Men	17	98	35	0	197.2	.00
	Women	56	11	3	80		

*Note.* *n* for men and women was 150 each. *df* = 2.

Table 2 shows that there is significant sex difference in the perception of guilt response to infidelity. More men perceive that none of the forms of infidelity make them feel guilty, whereas, more women perceive guilt in response to both forms of infidelity. Therefore, despite significant sex differences, 3<sup>rd</sup> hypothesis of the study is not supported. There may be several reasons for this pattern of results. First, guilt response to infidelity has relatively been left unexplored in the past research. Fisher et al. (2008) conducted a study on the same issue, but found the results opposite to those stated in the hypothesis. The explanation offered is that since men consider sexual infidelity by their partner to be more upsetting, they themselves feel guiltier over it. Similarly, as women demand emotional loyalty from their partner, they feel guilty when they are themselves not loyal to their partners emotionally. This may be considered as an extension of the theory of evolved sexual differences.

As far as the results of the present research are concerned, they can be explained in the light of cultural variances (Jensin, Arnett, Feldman, & Cauffman, 2000). In our society, men are not answerable to anyone whether they commit emotional cheating, sexual cheating, or both. They are exempted from accountability and the socialization practices keep them from realizing and accepting their faults and thus feeling guilty. On the other hand, women consider themselves dependent on men in virtually all ways and the cultural practices teach them to accept even blame. Consequently, women are likely to feel guilty over both forms of infidelity.

There is a significant sex difference in the perception of break up decisions in response to infidelity (Table 2). More men perceive sexual infidelity to be more likely to lead to relationship dissolution, therefore, 7<sup>th</sup> hypothesis of the study is partially supported. This has been supported by Anjum (2010). Whereas, out of 150 women, 80 perceive that none of the forms of infidelity is likely to lead to relationship dissolution. Therefore, the second half of the 7<sup>th</sup> hypothesis of the study is not supported that women will perceive emotional infidelity to have greater likelihood to lead to relationship dissolution. There are several explanations for this:

Firstly, there are cultural variances as far as the decision to break-up after discovering a partner's infidelity is concerned. Breaking a relation on the basis of kissing and/or hanging out is not a tradition in European or American culture (Feldman & Cauffman, 2000). On the contrary, men, in our culture, do not tolerate such acts at all and there are severe consequences if a husband gets to know about his wife's infidelity. It shows that social milieu and the attitudes people hold in a certain culture or subculture influence their decision to continue or end a marital relationship (Drigotas, Safstrom, & Gentillia, 1999).

Secondly, according to Anjum (2010), women have a higher intention to resolve the issue of their partner's infidelity because of the feelings of helplessness associated with partners' infidelity. Women are mostly dependent on men, both emotionally and economically, due to which they find it difficult to get out of the relationship. Moreover, women perceive separation or divorce as stigma. These findings are coherent with earlier researches that infidelity correlates positively with tradition (Hansen, 1987). Thirdly, a study by Abrahamson, Hussain, Khan, and Schofield (2012) lends support to the notion that all couples do not break-up following any kind of infidelity. This is in line with a study conducted by Gottmann and Notarious (2000) that children act as a buffer to break-up decisions following infidelity.

Chi-square analysis ( $\chi^2 = 77.70, p < .000$ ) further showed significant sex difference in the perception of causes of committing infidelity. More women perceive emotional dissatisfaction to be the main cause of infidelity. Thus, the first half of the 4<sup>th</sup> hypothesis is supported. A study by Babin and Dindia (2005) on sex differences in the justifications provided for infidelity, supports this finding. On the other hand, more men perceive both emotional and sexual dissatisfaction to be the causes of infidelity. Therefore, the second half of the 4<sup>th</sup> hypothesis of the study is not supported. A possible explanation for this is the stereotype that men cheat their wives for sexual desires only; men have lust for sex without emotions.

According to men, they might look for alternatives when their reasonable demands, as per religion, are left unanswered or are misinterpreted. Therefore, it is reasonable to say that, for men, both emotional and sexual deficiencies in a relationship set the stage for cheating.

To find out sex differences in the perception of approval of infidelity, independent sample *t*-test was used. Results show that there is nonsignificant sex difference in the perception of approval of emotional infidelity  $t(298) = .20, p > .05$ . Similarly, nonsignificant sex difference is found in the perception of approval of sexual infidelity  $t(298) = .26, p > .05$ . Therefore, 5<sup>th</sup> hypothesis of the study is not supported. Earlier research by Babin and Dindia (2005) supports this finding that both sexes overwhelmingly disapprove of infidelity despite the fact that they commit it.

### **Implications**

Although, the findings of the current research should be interpreted conservatively, they bear implications for preventive interventions with couples as dating behavior may lead to the development of behavioral patterns maintained in marriage (Rice, 1984). Besides, the services of psychiatrists and clinical psychologists, some NGOs and mobile companies in Pakistan, have designed programs to prepare couples for marriage and to prevent marital distress. The findings of this research along with other results can help them to guide couples develop ways to safeguard their marriage.

### **Limitations and Suggestions**

The study had certain limitations. First of all, data were collected from the twin cities only and comprised of participants mainly from the urban areas. Secondly, the age range of the sample was also restricted. Due to these constraints, the sample cannot be considered representative of all the married couples, thus, the results of the present research cannot be generalized to all the subcultures of Pakistan. It is, therefore, suggested to conduct research in future which incorporates participants from other cities and cultural zones. Individuals belonging to all the socioeconomic strata should be considered and the age range should also be increased.

As the second part of the study was based upon hypothetical forced-choice measures and these hypothetical scenarios were modified, they could have still contaminated the results of the study

by keeping the researcher from getting a truer picture of infidelity. In future, further studies could be conducted in the local context based upon real infidelity cases and continuous measures could be used to get an even better perspective on marital cheating. Thirdly, although the study attempted to explore the role of sociocultural factors in infidelity, it was primarily based upon evolutionary paradigm. Future research should take into account the sociocultural perspective of infidelity too. Moreover, future studies should highlight the role of moderators in self and partner infidelity and with-in sex differences in the perception of infidelity together with between-sex differences. Finally, instead of using hypothetical scenarios, some audio or video clip/s could be used to make the scenarios more standardized.

### Conclusion

To conclude, the present research was based upon the theory of evolved sex differences, particularly JSIM model. Research findings lent support to the evolutionary paradigm that men have greater concerns over sexual infidelity relative to women in the aspects explored. On the contrary, women perceived emotional infidelity to be of greater concern in comparison to sexual infidelity.

### References

- Abrahamson, I., Hussain, R., Khan, A., & Schofield, M. J. (2012). What helps couples rebuild their relationship after infidelity? *Journal of Family Issues, 33*, 1494-1519.
- Anjum, G. (2010). *Sex differences in perception of partner's infidelity among married adults* (Unpublished M.Phil dissertation). National Institute of Psychology, Islamabad, Pakistan.
- Atkins, D. C., Baucom, D. H., & Jacobson, N. S. (2001). Understanding infidelity: Correlates in a national random sample. *Journal of Family Psychology, 15*, 735-749.
- Babin, B., & Dindia, K. (2005). *Sex differences and similarities in emotional and sexual infidelity*. Interpersonal Division of the National Communication Association Convention in Boston, Massachusetts, USA.
- Barrett, H. C., Frederick, D. A., Haselton, M. G., & Kurzban, R. (2006). Can manipulations of cognitive load be used to test evolutionary hypotheses? *Journal of Personality and Social Psychology, 91*, 513-518. doi: 10.1037/0022-3514.91.3.513.
- Berman, M. I., & Frazier, P. A. (2005). Relationship power and betrayal experience as predictors of reactions to infidelity. *Personality and Social Psychology Bulletin, 31*, 1617-1627.

- Brase, G. L., Caprar, D. V., & Voracek, M. (2004). Sex differences in response to relationship threats in England and Romania. *Journal of Social and Personal Relationships, 21*, 763-778. doi:10.1177/0265407504047836.
- Buss, D. M. (1988). From vigilance to violence: Tactics of mate retention in American undergraduates. *Ethology and Sociobiology, 9*, 291-317.
- Buss, D. M., & Haselton, M. G. (2005). The evolution of jealousy: A response to Buller. *Trends in Cognitive Science, 9*, 506-507.
- Buss, D. M., Larsen, R. J., Westen, D., & Semmelroth, J. (1992). Sex differences in jealousy: Evolution, physiology, and psychology. *Psychological Science, 3*, 251-255.
- Buss, D., Shackelford, T., Kirkpatrick, L., Choe, J., Lim, H., & Hasegawa, M. (1999). Jealousy and the nature of beliefs about infidelity: Tests of competing hypotheses about sex differences in the United States, Korea, and Japan. *Personal Relationships, 6*, 125-150.
- Buunk, B. P., Angleitner, A., Oubaid, V., & Buss, D. M. (1996). Sex differences in jealousy in evolutionary and cultural perspectives: Tests from the Netherlands, Germany, and the United States. *Psychological Science, 7*, 359-363.
- Daly, M., Wilson, M., & Weghorst, S. J. (1982). Male sexual jealousy. *Ethology and Sociobiology, 3*, 11-27.
- de Souza, A. A. L., Verderane, M. P., Taira, J. T., & Otta, E. (2006). Emotional and sexual jealousy as a function of sexual orientation in a Brazilian sample. *Psychological Reports, 98*, 529-535.
- DeSteno, D., & Salovey, P. (1996). Evolutionary origins of sex differences in jealousy? Questioning the "fitness" of the model. *Psychological Science, 7*, 367-372.
- Drigotas, S. M., Safstrom, C. A., & Gentillia, T. (1999). An investment model prediction of dating infidelity. *Journal of Personality and Social Psychology, 77*, 509-524.
- Feldman, S. S., & Cauffman, E. (2000). Your cheating heart: Attitudes, behaviors, and correlates of sexual betrayal in late adolescents. *Journal of Research on Adolescence, 9*, 227-253.
- Fisher, M., Voracek, M., Rekkas, P. V., & Cox, A. (2008). Sex differences in feelings of guilt arising from infidelity. *Evolutionary Psychology, 6*, 436-446.
- Gottmann, J. M., & Notarius, C. I. (2000). Decade review: Observing marital interaction. *Journal of Marriage and Family, 62*, 927-947. doi: 10.1111/j.1741-3737.2000.00927.x.
- Hansen, G. L. (1987). Extradynamic relations during courtship. *Journal of Sex Research, 23*, 382-390.
- Harris, C. R. (2003). A review of sex differences in sexual jealousy, including self-report data, psychophysiological responses, interpersonal

- violence, and morbid jealousy. *Personality and Social Psychology Review*, 7, 102-128.
- Jensin, L. A., Arnett, J. J., Feldman, S. S., & Cauffman, E. (2004). The right to do wrong: Lying to parents among adolescents and emerging adults. *Journal of Youth and Adolescence*, 33, 101-112.
- Lishner, D. A., Nguyen, S., Stocks, E. L., & Zillmer, E. J. (2008). Are sexual and emotional infidelity equally upsetting to men and women? Making sense of forced-choice responses. *Evolutionary Psychology*, 6, 667-675.
- Munsch, C. L. (2012). The Science of two-timing: The state of infidelity research. *Sociology Compass*, 6(1), 46-59. doi: 10.1111/j.1751-9020.2011.00434.x.
- Rice, F. P. (1984). *The adolescent: Development, relations, and culture*. Boston: Allyn & Bacon.
- Sagarin, B. J. (2005). Reconsidering evolved sex differences in jealousy: Comment on Harris (2003). *Personality and Social Psychology Review*, 9, 62-75.
- 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*, 4, 56-61.
- Shackelford, T. K., Buss, D. M., & Bennett, K. (2002). Forgiveness or breakup: Sex differences in responses to a partner's infidelity. *Cognition and Emotion*, 16, 299-307.
- Takahashi, H., Matsuura, M., Yahata, N., Koeda, M., Suhara, T., & Okubo, Y. (2006). Men and women show distinct brain activations during imagery of sexual and emotional infidelity. *Neuroimage*, 32, 1299-1307. doi: 10.1016/j.neuroimage.2006.05.049.
- Thompson, A. P. (1983). Extramarital sex: A review of the research literature. *The Journal of Sex Research*, 19, 1-22.
- Thornhill, R., & Alcock, J. (1983). *The evolution of insect mating systems*. Cambridge, MA: Harvard University Press.
- Trivers, R. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man, 1871-1971* (pp. 136-179). Chicago: Aldine.
- Ward, J., & Voracek, M. (2004). Evolutionary and social cognitive explanations of sex differences in romantic jealousy. *Australian Journal of Psychology*, 56, 165-171.
- Wiederman, M. W. (1997). Extramarital sex: Prevalence and correlates in a national survey. *The Journal of Sex Research*, 34, 167-174. doi: 10.1080/00224499709551881.
- Wiederman, M. W., & Hurd, C. H. (1999). Extradyadic involvement during dating. *Journal of Social and Personal Relationships*, 16, 265-274.
- Wiederman, M. W., & Kendall, E. (1999). Evolution, sex, and jealousy: Investigation with a sample from Sweden. *Evolution and Human Behavior*, 20, 121-128.

## Appendix

### Vignette for Men

Please read each of the following scenarios about relationships and answer each question based on your own interpretation of the situation.

**Scenario I.** Imagine there is a woman named X. She has been married to a man named Y for the past five years. X and her husband Y are living together ever since they are married. They consider their relationship to be good and want to maintain this relationship forever. Although they have an agreement to remain loyal to one another, Y discovers that X has become interested in someone else.

Keeping in mind the above mentioned situation:

1. What would be more distressing for Y about the situation? Please encircle only one option.
  - a. X's emotional relationship with another person.
  - b. X's sexual relationship with another person.
  - c. Both emotional and sexual relationship.
  
2. Which aspect of X's involvement would be more difficult for her husband to forgive? Please encircle only one option.
  - a. Her emotional relationship with another person.
  - b. Her sexual relationship with another person.
  - c. Both emotional and sexual relationship.
  
3. Which aspect of X's involvement would be more likely to lead her husband to break up with his wife? Please encircle only one option.
  - a. Her emotional attachment to another person.
  - b. Her sexual relationship with another person.
  - c. Both emotional and sexual relationship.
  - d. None.
  
4. What would be the response of Y regarding the approval of his wife's emotional infidelity? Please rate it on a 7-point Likert scale (1 = *not acceptable* to 7 = *extremely acceptable*).



**Scenario II.** Imagine there is a woman named X. She has been married to a man named Y for the past five years. X and her husband Y are living together ever since they are married. They consider their relationship to be good and want to maintain this relationship forever. Although they have an agreement to remain loyal to one another, Y without his partner knowing, becomes interested in someone else.

Keeping in mind the above mentioned situation:

1. Which type of involvement is Y more likely to experience?
  - a. Emotional attachment to another person.
  - b. Sexual attachment with another person.
  - c. Both emotional attachment and sexual attachment.
  
2. What would make Y feel more guilt? Please circle only one answer.
  - a. Forming a deep emotional attachment to another person.
  - b. Forming a deep sexual attachment to another person.
  - c. Both emotional attachment and sexual attachment.
  - d. None.
  
3. What would be the reasons for committing infidelity?
  - a. Sexual dissatisfaction.
  - b. Emotional dissatisfaction.
  - c. Both sexual and emotional dissatisfaction.

### **Vignette for Women**

Please read each of the following scenarios about relationships and answer each question based on your own interpretation of the situation.

**Scenario I.** Imagine there is a woman named X. She has been married to a man named Y for the past five years. X and her husband Y are living together ever since they are married. They consider their relationship to be good and want to maintain this relationship forever. Although they have an agreement to remain loyal to one another, X discovers that Y has become interested in someone else.

Keeping in mind the above mentioned situation:

1. What would be more distressing for X about the situation? Please encircle only one option.
  - a. Y's emotional relationship with another person.
  - b. Y's sexual relationship with another person.
  - c. Both emotional and sexual relationship.
  
2. Which aspect of Y's involvement would be more difficult for his wife to forgive? Please encircle only one option.
  - a. His emotional relationship with another person.
  - b. His sexual relationship with another person.
  - c. Both emotional and sexual relationship.
  
3. Which aspect of Y's involvement would be more likely to lead his wife to break up with him? Please encircle only one option.
  - a. His emotional attachment to another person.
  - b. His sexual relationship with another person.
  - c. Both emotional and sexual relationship.
  - d. None.
  
4. What would be the response of X regarding the approval of her husband's emotional infidelity? Please rate it on a 7-point Likert scale (1 = *not acceptable* to 7 = *extremely acceptable*).
  
5. What would be the response of X regarding the approval of her husband's sexual infidelity? Please rate it on a 7-point Likert scale (1 = *not acceptable* to 7 = *extremely acceptable*).

**Scenario II.** Imagine there is a woman named X. She has been married to a man named Y for the past five years. X and her husband Y are living together ever since they are married. They consider their relationship to be good and want to maintain this relationship forever. Although they have an agreement to remain loyal to one another, X without her partner knowing, becomes interested in someone else.

Keeping in mind the above mentioned situation:

1. Which type of involvement is X more likely to experience?
  - a. Emotional attachment to another person.

- b. Sexual attachment with another person.
  - c. Both emotional attachment and sexual attachment.
2. What would make X feel more guilty? Please circle only one answer.
- a. Forming a deep emotional attachment to another person.
  - b. Forming a deep sexual attachment to another person.
  - c. Both emotional attachment and sexual attachment.
3. What would be the reasons for committing infidelity?
- a. Sexual dissatisfaction.
  - b. Emotional dissatisfaction.
  - c. Both sexual and emotional dissatisfaction.
4. What would be the response of Y regarding the approval of his wife's sexual infidelity? Please rate it on a 7-point Likert scale (1 = *not acceptable* to 7 = *extremely acceptable*).

Received January 2<sup>nd</sup>, 2015

Revision received November 18<sup>th</sup>, 2015