

Sex Differences in Sexual Versus Emotional Jealousy: Evolutionary Approach and Recent Discussions

H. Andaç DEMİRTAŞ MADRAN

Abstract

Sex differences in jealousy have been reported widely in the social psychological, clinical psychological, psychiatric, and anthropological literature.

Many of the studies conducted on jealousy have focused on the sex differences in the level of reported jealousy. Most research has reported that there is no difference between men and women regarding the level of reported jealousy, but there are some sex differences between sexual and emotional jealousy.

Evolutionary psychologists divide jealousy into 2 dimensions based on their observations and empirical research findings: Sexual jealousy and emotional jealousy. Sexual jealousy is knowing or suspecting that one's partners has had sexual relationship with a third person, whereas emotional jealousy is triggered by partner's emotional involvement with and/or love for another person. The parental investment model, which extended Darwin's explanations of sexual selection, provides a useful theoretical framework for studying sexual and emotional jealousy. According to this model sexual selection is driven by differential parental investment by men and women; men should experience more sexual jealousy than women and women should experience more emotional jealousy than men. Considerable research has focused on testing this hypothesis and, with a few exceptions, the results are generally consistent with the evolutionary account.

In this study, firstly, a brief definition of the sexual and emotional jealousy will be given. Then, sex differences in sexual and emotional jealousy will be explained according to the evolutionary theory. Finally, the results of empirical studies and critiques of the evolutionary model will be given.

Key Words: *Jealousy, sex differences, evolution theory, parental investment model*

INTRODUCTION

Jealousy in close relationships has been one of the most common issues dealt with in the fields of clinical psychology, psychiatry, and social psychology, especially after the mid 1980s (Buunk, 1981; Guerrero and Eloy, 1992). In recent years studies have been conducted in Turkey on the relationship between jealousy, and a series of personal, interpersonal, and situational variables (Karakurt, 2001; Öner, 2001; Demirtaş, 2004; Demirtaş and Dönmez, 2006).

Jealousy is a complicated reaction in response to a threat that could end or destroy a relationship that is considered important (Pines, 1998, p. 2). According to

DeSteno and Salovey (1996, p. 921), jealousy is a deviant mood state that is experienced when a relationship considered important is actually destroyed or is at risk, and is characterized by feelings of anger.

Based on studies conducted to date, one of the variables related to jealousy that has been questioned most often is sex (Mathes and Severa, 1981; White, 1981; Hansen 1982; Pines and Aronson, 1983; Hansen, 1985; Peretti and Pudowski, 1997, Pines and Aronson 1983, White 1981). Most of the findings obtained from these studies show that men and women exhibit an equal level of jealousy (Demirtaş and Dönmez 2006, Hupka 1981, Pines and Aronson 1983, White 1981).

Received: 17.07.2007 – **Accepted:** 23.07.2007

H. Andaç Demirtaş-Madran PhD., e-mail: andac@baskent.edu.tr

Apart from the arguments about whether men or women exhibit more or less jealousy, another issue that contemporary evolutionary theorists emphasize is, “what are the factors that lead both genders to experience jealousy”. Are men and women jealous of the same things? Are there differences between men and women in terms of emotional and sexual jealousy?

The purpose of the present study was to review the results of published empirical research in order to find answers to these questions, to discuss these findings in accordance with the striking explanations provided by evolutionary theoreticians, as well as to examine the criticisms raised by the adherents of different approaches to jealousy. With this purpose in mind, firstly, definitions of emotional and sexual jealousy will be provided. This will be followed an examination of the evolutionary of jealousy, relevant research findings, and, finally, criticism of the theory.

In this review, in order to access related research findings and theoretical discussions the key words, jealousy, emotional jealousy, sexual jealousy, and close relationships, were used to find articles published between January 1980 and March 2007 by searching Web of Science, Medline, PsycINFO, and Proquest databases. Furthermore, to locate basic references a search was conducted at university libraries located in Ankara and at the Higher Education Thesis Center for Turkish Dissertations.

Emotional Jealousy/Sexual Jealousy

Definition

According to a classification based on the fact that one of the most important determinants of jealousy is “situational variables”, jealousy is divided into 2 dimensions: Emotional jealousy and sexual jealousy.

Sexual jealousy is experienced as a result of information about or suspicion of a partner’s sexual affair with a third person. Emotional jealousy, on the other hand, is jealousy that emerges because of knowledge of or suspicion about a partner’s emotional involvement with a third person (Harvey et al., 2004).

Factors that Trigger Emotional and Sexual Jealousy

As a result of research conducted in 1997, Shackelford and Buss state that there are certain behaviors that trigger sexual and emotional jealousy. The behaviors that trigger sexual jealousy, that is, behaviors that reveal concretely

or produce the suspicion that one’s partner is having a sexual relationship with a third person are as follows:

- a. Some physical signs that do not comply with the “privacy” of the couple’s sexual life (e.g. a unfamiliar scent that suggests the partner has had physical intimacy with somebody else);
- b. Revealing sexual infidelity (e.g. a partner admits that she/he has had sexual relations with someone else);
- c. The routine frequency and pattern of sexual life changes (e.g. a partner suggests different sexual experiences);
- d. Increased sexual interest and emotions being revealed in an exaggerated manner (e.g. a partner talks about sex more often than usual, or proclaims his/her love more often than usual);
- e. Sexual indifference and boredom (e.g. a partner attempts sexual intimacy less often than usual).

Shackelford and Buss (1997) also determined 7 behavioral patterns that trigger emotional jealousy. The first 3 given below highlight the fact that interpersonal intimacy has decreased and the remaining 4 indicate that a partner’s communication style has changed:

1. Dissatisfaction about the relationship and loss of love (e.g. a partner states a desire to have other relationships);
2. Emotional negligence (e.g. a partner forgets special days and begins to communicate less frequently about his/her love);
3. Reluctance to spend time together (e.g. a partner begins to attend social gatherings with friends without inviting his/her partner);
4. Passive rejection and exhibiting inconsiderate behavior (e.g. being rude, showing less respect and love);
5. Communicating in a angry, critical, and inquisitive manner (e.g. a partner frequently makes harsh criticism and tries to start fights);
6. Avoids talking about a certain person (which leads to the suspicion that the partner is having an affair with that individual);
7. Adopting a guilty and anxious communication pattern (e.g. behaving in a way that is either too tolerant and forgiving or too tense).

Shackelford and Buss (1997) also mentioned 2 kinds of behavior that trigger both types of jealousy; “apathetic communication” and “behavior that indicates a relation-

ship has been formed with a third party". In apathetic communication, a spouse emotionally and sexually distances him/herself from his/her partner. In addition to this, situations in which a partner talked about a third person or addressed his/her partner by the name of somebody else triggers both types of jealousy.

Evolutionary Theory and Emotional/Sexual Jealousy

Jealousy is a phenomenon that is regarded as a negative emotional state in which the pathological dimension is emphasized; however, evolutionary theorists have viewed a quite different than this general understanding. In their opinion, jealousy is a functional, normal, and complex phenomenon that has evolved over time (Harvey et al., 2004). According to this approach, jealousy, which is thought to have existed millions of years ago and which is an emotion regarded as serving to man's adaptation to life, emerged as a defense against being abandoned or cheated on (Buss, 2000). It is observed that when the issue is emotional and sexual jealousy, many studies are based on the evolutionary theory (Buss, 1995).

In his theory of evolution, Darwin made important explanations about the evolution of sexual differences and based his views on jealousy mainly on sexual differences. According to Darwin, evolutionary reasons lie at the heart of jealousy because it is an instinct that serves to protect relationships (Kenrick and Trost, 1997). Emotions and behaviors related to jealousy help couples maintain their relationship, reproduce, raise their children, and thus maintain the survival of the species as their genes are passed on to succeeding generations.

Since Darwin, the link between emotions, behaviors, and evolution has also been tackled by contemporary evolutionary theoreticians (Buss, 1994; Buunk et al., 1996). Darwin made important observations about universal emotions, both in humans and animals, such as fear, sadness, aggression, and anger, and adapted the theory of natural selection to these subjects. According to him, revealing one's emotional state and understanding the emotions of others evolved to ensure the survival of humans and animals (Harvey et al., 2004). Contemporary evolutionary theoreticians use this approach to explain processes like mate selection, and formation and maintenance of relationships (Buss, 2000; Scheib, 2001).

In recent years psychologists that adhere to the evolutionary theory of jealousy emphasize sex differences, especially in terms of mate selection, stating that women prefer socially dominant spouses with a good income,

whereas men seek healthy and physically attractive partners (Buss and Barnes, 1986; Kenrick et al., 1993). Studies based on sex differences in mate selection began to be replaced by new studies in the 1990s that focused on issues like sexual and emotional cheating, and jealousy and reactions to jealousy (DeWeerth and Kalma, 1993; Widerman and LaMar, 1998; Buss et al., 1999; Cramer et al., 2001).

Evolutionary psychologists propose that there is a significant sex difference in reactions to infidelity; women have stronger reactions to emotional infidelity (emotional jealousy) and men have stronger reactions to sexual infidelity (sexual jealousy). These explanations are mainly based on the parental investment model.

Parental Investment Model and Jealousy

The parental investment model based on Darwin's sexual selection theory (Trivers, 1972) offers an extensive background in explaining emotional and sexual jealousy. The sexual selection process indicates that human beings prefer different methods of mate selection. According to Trivers (1972), the process of sexual selection in men and women works with different instincts that are passed on to children from parents. Women and men experience different losses upon unsuccessfully selecting a mate and, therefore, they use different criteria when choosing their partners.

According to the parental investment model, women make more biological and emotional investments in child rearing and protection, and carry their babies in their womb for 9 months, whereas men only make a biological investment in the fertilization stage. Apart from this, women care their children to a much greater extent than do men, from infancy to adolescence, and even through adulthood; thusly, women invest much more emotionally, physically, and time-wise. For all these reasons, compared to men, women are more selective in mate selection (including dating, temporary relations, and marriage). Men, who are not very selective in mate selection for temporary sexual relationships, become highly selective when it comes to more permanent relationships (Mathes et al., 2002).

There are various factors that determine mate selection in men. Men are faced with a problem that women are not, which is, are they the biological father of their children or not. The state of being suspicious about fatherhood has existed throughout history (Pietrzak et al., 2002). This has, in turn, led to men evolving more sensitivity about being sexually cheated on (Buss, 2000). For

men, it is essential to be the one and only sexual partner in a relationship. In the case of sexual infidelity, a man is faced with the possibility of raising another man's child. Moreover, he risks the physical energy he has spent and the other material and emotional investments he has made. In this case, perhaps he passes on his resources to a child that is not biologically his and perhaps the survival of his own biological children is negatively affected.

As for women, any uncertainty or suspicion related to biological motherhood is out of the question; therefore, being sexually cheated on does not pose a threat to her. Nonetheless, when her spouse shows interest in another woman, she will feel as though she has wasted her time, energy, resources, productivity, and fidelity. It has been observed that among women, being emotionally cheated on means that her relationship is endangered and, therefore, women are more annoyed about being faced with such a situation and experience more jealousy (Buunk et al., 1996).

According to the evolutionary theory, men prefer healthy and fertile women with whom they can pass their genes to future generations. This reveals itself in men selecting mates according to such factors as good health, which ensures fertility, sexual fidelity, and physical attraction (Fink et al., 2001). Women, on the other hand, prefer men that can satisfy their material and emotional needs during motherhood, men with status in their society, and men that are emotionally faithful. In brief, such factors as financial resources, dominance, ambition, and emotional fidelity hold more importance for women, whereas men place a priority on physical attraction and sexual fidelity (Kenrick and Trost, 1997). The intercultural validity of this has been proven by a large number of studies (Buss et al., 1996, Buss and Barnes 1986, Kenrick et al. 1990).

The parental investment model contains 3 hypotheses:

1. Men exhibit more jealousy in response to sexually infidelity, whereas women become jealous in response to emotional infidelity;
2. The characteristics of the rival that leads to jealousy in men and women are different;
3. Men and women react differently to jealousy and adopt different coping methods.

As it has been stated in the introduction, this study aimed to review research findings related to the first of the hypotheses given above. In the following subsection, related research findings are presented.

Related Research Findings

Empirical Evidence Concerning the Evolutionary Approach

Many studies have been conducted based on the hypothesis that women experience more emotional jealousy than men and that men experience more sexual jealousy than women. Except for a few (Harris and Christenfeld, 1996; Nannini and Meyers, 2000), these studies seem to support the hypothesis (Buss et al., 1992; Buunk et al. 1996, Buss et al. 1992, Cann et al. 2001, Cramer et al., 2001, Demirtaş, 2004; Geary et al. 1995, Hupka and Bank 1996, Wiederman and Lamar 1998, Pines and Friedman 1998).

The first of these studies to be conducted is the impressive study by Buss et al. (1992) in which participants were given 2 situations of being cheated on (emotional/sexual) and were asked to state the situation that would create more jealousy for them. In addition to this, participants were asked to imagine, with the help of scenarios, that their partners were having "various sexual experiences" or living through "the experiences that 2 people in love have" with a third person and were asked how jealous these situations made them feel. The participants' physical reactions (heart rate and electro dermal activity) to these scenarios were measured and the findings seemed to confirm the evolutionary theory. In other words, it was determined that for women, emotional infidelity led to stronger reactions and jealousy, whereas for men it was sexual infidelity. Studies conducted in China, Germany, Japan, Korea, Holland, Sweden, USA, and Turkey report the same results (Buss et al. 1999, Cramer et al. 2001, Demirtaş 2004, Geary et al. 1995).

This finding, which has been emphasized in many other studies, has become a significant premise of the evolutionary theory of jealousy. Similar findings have been obtained in many studies conducted in different countries, with different samples, and by using somewhat different scenarios. The Table I lists those studies and their findings that confirm the above-mentioned hypothesis of the evolutionary theory.

In addition to the studies presented in Table I, Harris (2003) conducted a meta-analysis of 32 studies that were performed by asking forced-choice questions and reported that his findings indicate a finding that is statistically significant. Furthermore, Dreznick (2003) carried out a meta-analysis of 37 studies and, similarly, obtained results that support the evolutionary theory.

Apart from the studies in the Table I, other studies

have used Likert-type scales. These studies also seem support the assumption of the evolutionary theory to a great extent (Fernandez 2006, Geary et al. 1995, Geary et al. 2002, Shackelford et al. 2002, Sagarin et al. 2003).

Another body of research consists of studies that measured the physical reactions of subjects after they were presented with scenarios involving both types of cheating. These studies were conducted in order to identify differences between men and women in their electro dermal activity, electromyography, and heart rate, in reaction to scenarios of being sexually and emotionally cheated on. Except for the study by Harris (2000), all the studies performed in this manner seem to support the evolutionary theory, showing that men and women have significantly different physiological reactions to being sexually and emotionally cheated on (Buss et al. 1992, Grice and Seely 2000, Pietrzak et al. 2002).

Nonetheless, despite these results, many academicians criticize the evolutionary theory, stating that the differences observed in men and women are primarily related to social and cognitive learning processes (DeSteno and Salovey 1996).

The theory that jealousy is an instinct and therefore should be considered “natural”, and that it is an uncontrollable emotion that functions differently in men and women is the subject of skepticism, especially by Pines (1998), who largely directs criticism towards the evolutionary theory of jealousy. To accept that a certain behavior is instinctual and uncontrollable can lead to the conclusion that it is unnecessary to conduct scientific research on that behavior. With this assumption, it would be a waste of effort to try to change a behavior that is impossible to control or to attempt to treat it using relevant methods.

In addition to the criticism by Pines (1998), which is aimed at the importance attributed to instincts by the evolutionary theory, and which, in fact, could apply to the explanations that this approach offers for all other forms of behavior, criticism of the evolutionary theory of emotional and sexual jealousy are examined in the following section.

Basic Criticism

Apart from 1 or 2 exceptions, it can easily be said that all the reviewed studies confirm the aforementioned assumptions of the evolutionary theory, as can be seen in the Table I. Nevertheless, scientists that use different theoretical approaches to understand jealousy attribute gender differences to different variables other than evo-

lution, to the questions/scenarios used in the studies that reveal these findings and to some methodological deficiencies.

The Power Perspective

According to the theory pioneered by Mead (1977) and White (1981), the fact that men and women exhibit different kinds of jealousy behavior is not due to evolution, but to differences between the sexes in terms of power.

Mead (1977) thinks that jealousy emerges because of threats to self-esteem. In accordance with this explanation and its relationship to gender, Mead states that men have higher levels of self-esteem than women. According to Mead (1977), this makes women more jealous and causes them to react differently when their relationships are threatened. Yet, Mead thinks that women’s lower self-esteem and their particular jealousy behaviors that are intensified by low self-esteem do not stem from the evolutionary heritage or existing individual deficiencies, but from the relative weakness of women created by the society (Mathes 1992).

White (1981) also evaluates the sex differences in jealousy based on the concept of power. He proposes that the level of power in a relationship has a significant role in what kind of jealousy is experienced and how an individual will cope with it. The power perspective maintains that men generally have greater economic power and that women are generally dependent on this power, which is one of the dynamics that push women toward emotional jealousy (Berman and Frazier 2005).

An Alternative Approach: The Double Shot Hypothesis

This approach was developed as an alternative to the evolutionary approach regarding the sex differences in emotional and sexual jealousy (DeSteno and Salovey 1996, Harris 2003).

According to the double shot approach, men and women both experience emotional and sexual jealousy; in fact, one includes the other as well. The only difference is in the premises of men and women. In other words, according to the members of one sex, sexual cheating also includes and brings about emotional cheating and according to those of the other, emotional cheating brings sexuality with itself. Thus, although men and women respond differently when asked which situation causes more jealousy, they experience both kinds of jealousy simultaneously; thus, the term, “double shot”.

Table I. Data from self-report studies that used forced-choice response format and confirm the hypothesis of the evolutionary theory of jealousy.

Study	Country	Sample**	Percentage Choosing Sexual Infidelity as Worse	
			Men	Women
Brase et al. (2004)	England	114	52	26
Buss et al. (1992)	U.S.	202	60	17
Buss et al. (1999)	U.S.	232	76	32
Buss et al. (1999)	Korea	187	59	18
Buss et al. (1999)	Japan	313	38	13
Buunk et al. (1996)	U.S.	224	60	17
Buunk et al. (1996)	Germany	200	27	15
Buunk et al. (1996)	Holland	207	51	30
Cann et al. (2001)	U.S.	156	67	41
Demirtaş (2004)	Turkey	454	56	23
DeSteno et al. (2002)	U.S.	111	54	34
DeSteno and Salovey (1996)	U.S.	114	58	38
Geary et al. (2001)	U.S.	413	73	37
Geary et al. (1995)	U.S.	385	53	23
Geary et al. (1995)	China	103	20	5
Harris (2003)	U.S.	353	61	24
Harris and Christenfeld (1996)	U.S.	136	47	22
Hupka and Bank (1996)	U.S.	499	48	26
Murphy and ark (2006)	U.S.	263	49	24
Pietrzak et al. (2002)	U.S.	49	59	22
Sagarin et al. (2003)	U.S.	208	51	16
Shackelford et al. (2002)	U.S.	256	62	22
Shackelford et al. (2004)	U.S.	234	76	33
Voracek et al. (2001)	Austria	239	26	12
Ward and Voracek (2004)	Austria	268	44	20
Wiederman and Kendall (1999)	Sweden	376	62	37

*In these investigations participants were asked directly or by a scenario created for the study to imagine these 2 different types of infidelity and report which would be more stressful:

- a. Forming a deep emotional attachment with another person;
- b. Trying different sexual positions with another person.

**Participants of all of these studies were university students. Only 48% of Demirtaş's research sample was non-student adults (Turkish sample). Findings indicated that there was no meaningful difference between the 2 groups' selections.

Women state that they are more jealous if their partners have emotional intimacy with somebody else and they think that a man who is in love with someone else

will also be sexual intimate with them. As a result women experience both emotional and sexual jealousy at the same time. Men, on the other hand, think that women

may fall in love with a man without experiencing sexual intimacy; however, if a woman has a sexual affair it is accompanied by emotional intimacy. In the process of social learning in almost all cultures, it is emphasized that women cannot have a sexual relationship without falling in love and that men can have sex without their emotions being involved. That is to say, growing up with the doctrine that there are different mechanisms underlying the sexual lives of men and women influences the viewpoints of each gender about sex and, therefore, the meaning each will attribute to different kinds of betrayal.

As mentioned earlier, men and women are socialized differently. The differences they exhibit in terms of jealousy stem entirely from this fact and the meanings they attribute to being cheated on sexually and emotionally are different (Pines, 1998). The study by Oliver and Hyde (1993), which posits that the biggest difference between men and women is in their perceptions of sexuality, has been mentioned earlier. Women relate sex with affection and emotional intimacy, while men relate it to success, excitement, control, and pure physical relief (Basow 1992). Men and women attribute completely different meanings to sex (Oliver and Hyde 1993); thusly, they differ in terms of their experiences of sexual and emotional jealousy. Harris and Christenfeld (1996) relate this difference to the fact that women think that men can have sex without falling in love, and that men socially learn that women have sex only with a man they have emotional intimacy with. Consequently, according to this view, the differences in jealousy between the genders can be explained through learning, not through evolution.

Basic Criticism about Methodology

In addition to these criticisms, there are critics of the methodology used to research the evolutionary theory of jealousy. Recently, Buller (2005) criticized the hypothesis of evolutionary theorists, the research methods they used, and the statistical properties of their assessment tools. He states that the studies he has conducted using different empirical methods did not reveal any sex differences regarding emotional and sexual jealousy.

The critical and argumentative articles published by Buller (2005) and evolutionary theorists provide new viewpoints on this issue (Buss and Haselton 2005).

Harris (2003), Sabini and Green (2004), and Berman and Frazier (2005) emphasize that the explanations supported by the evolutionary come from studies

in which a forced-choice cheating paradigm was used. Harris (2003) brings a second empirical criticism to the approach, stating that these findings were obtained from studies in which almost all of the participants were university students. He maintains that it is misleading to generalize the answers of university students that have never had an intimate relationship or who were currently not in one. The studies of Sabini and Green (2004), and Berman and Frazier (2005) show that these people have provided answers by either considering the situations they are likely to face or using their observations. Furthermore, it has been pointed out that when researchers asked participants to imagine their partners cheating on them according to various detailed scenarios, no sex differences in jealousy were observed. Harris (2003) stated that the sex differences regarding sexual and emotional jealousy did not exist when he evaluated the findings of studies that dealt with the reactions of individuals who had been cheated on.

Harris (2002), taking into account the previously mentioned criticism conducted a study using a 5-point Likert-type scale in order to assess sexual and emotional jealousy in heterosexual and homosexual adults (not university students) that had been cheated on. Following this study, Harris (2003) conducted another study of university students that had or had not been cheated on (or those who did not know if they had been cheated on). In the first study, emotional jealousy was reported higher level in both groups without any sex differences. In the second study, it was reported that male and female students that had been cheated on experienced both emotional and sexual jealousy equally.

Criticisms about Cross-Cultural Generalization

On the other hand, although it has been concluded by many studies that sex differences in jealousy have intercultural validity, some scientists report that sex differences in jealousy vary from one culture to another and cannot be generalized to all cultures. In cultures that have a more flexible approach to extramarital relationships different results have been obtained and it has been observed that being emotionally cheated on leads to more jealousy in both sexes (Buunk et al. 1996, DeSteno and Salovey 1996).

On the other hand, the social-cognitive approach provides explanations that focus on social learning and social cognition (DeSteno and Salovey 1996, Harris and Christenfeld 1996b). DeSteno and Salovey (1996) carried out a large number of studies on the subject and report that cultural variables have an undeniably strong

effect on humans, despite agreeing with the evolutionary approach concerning sex differences in jealousy.

Similarly, Hupka and Bank (1996), approaching jealousy from a socio-cultural perspective, maintain that sex differences in jealousy cannot be the result of evolution, but that it is the norms that societies impose upon men and women that are the determining factors. The same researchers reported that both men and women experience emotional jealousy to a greater extent than sexual jealousy.

In her examinations of the tradition of swapping partners/spouses and on polygamy, Mead (1977) observed that a spouse having a sexual relationship with somebody else does not lead to jealousy. For example, Eskimos "offer" their wives to their guests and do not feel jealous when they do so; however, if the offer is not accepted, this can damage an Eskimo's self-esteem.

In societies where polygamy is acceptable, women want their husbands/partners to find a new wife/wives and this is regarded as a kind of status symbol. Her husband's polygamy does not make the woman jealous; on the contrary, it makes her proud and honored (Demirtaş and Dönmez 2006).

CONCLUSION

That women experience more jealousy in the case of being emotionally cheated on and that men feel more jealousy when they are sexually cheated on has been prov-

en by many studies. Nevertheless, in addition to these findings, contradictory/conflicting findings (DeSteno et al. 2002, Sabini and Gren 2004) reported during the last decade have led to confusion and, in a sense, threatened the evolutionary approach.

In contrast to the evolutionary theory, which posits that there are strong distinctions between men and women in terms of jealousy, psychodynamic theory, social-cognitive learning theory, social role theory, social exchange theory, and behavioral theory do not focus similarly on sex differences in therapy (Pines 1998).

Despite being the target of much criticism, the explanations of the evolutionary approach regarding emotional and sexual jealousy has been widely accepted and has contributed in many ways to research. Admittedly, this theory, which has had remarkable dominance in academic circles since the 1990s, is reasonable. Nonetheless, it is impossible to disregard the explanations of social learning theory, which deal with the developmental aspect of jealousy, the theories of Sullivan, Mead, and Freud, in terms of the pathological aspect of jealousy, or the cognitive-phenomenological model of Lazarus.

In conclusion, it seems more reasonable to adopt a more eclectic approach rather than a single theoretically based approach when considering differences in jealousy based on gender.

REFERENCES

- Andersen PA, Eloy SV (1995) Romantic jealousy and relational satisfaction: A look at the impact of jealousy experience and expression. *Comm Rep*, 8: 77-86.
- Basow SA (1992) *Gender: Stereotypes and roles*. Pacific Grove, CA: Brooks/Cole.
- Berman MI, Frazier PA (2005) The effects of relationship power and betrayal experience on reactions to infidelity. *Pers Soc Psychol Bull*, 31: 1617-1627.
- Brase GL, Caprar DV, Voracek M (2004) Sex differences in responses to relationship threats in England and Romania. *J Soc Pers Relat*, 21(6): 763-778.
- Buller DJ (2005) Evolutionary psychology: the emperor's new paradigm. *Trends Cogn. Sci.* 9: 277-283.
- Buss DM (1994) *The evolution of desire: Strategies of human mating*. New York: Basic Books, p. 19-49.
- Buss DM (1995) Evolutionary psychology: A new paradigm for psychological science. *Psychol Inq*, 6: 1-30.
- Buss DM (2000) *The dangerous passion: Why jealousy is as necessary as love and sex*. New York: Free Press, 10-26.
- Buss DM, Barnes M (1986) Preferences in human mate selection. *J Pers Soc Psychol*, 50: 559-570.
- Buss DM, Haselton M (2005) The Evolution of jealousy: A reply to Buller. *Trends Cogn Sci*, 9(11): 506-508.
- Buss DM, Larsen RJ, Westen D et al. (1992) Sex differences in jealousy: Evolution, physiology, and psychology. *Psychol Sci*, 3: 251-255.
- Buss DM, Shackelford TD, Kirkpatrick LA et al. (1999) Jealousy and the nature of beliefs about fidelity: tests of competing hypotheses about sex differences in The United States; Korea and Japan. *Pers Rel*, 6: 125-150.
- Buunk BP, Angleitner A, Oubaid V et al. (1996) Sex differences in jealousy in evolutionary and cultural perspective: Tests from the Netherlands, Germany, and the United States. *Psychol Sci*, 7(6): 359-379.
- Cann A, Mangum J, Wells M (2001) Distress in response to relationship infidelity: The roles of gender and attitudes about relationships. *J Sex Res*, 38(3): 185-190.
- Cramer RE, Abraham WT, Johnson LM et al. (2001) Gender differences in subjective distress to emotional and sexual infidelity: Evolutionary or logical inference explanation? *Curr Psychol*, 20 (4): 211-220.
- Demirtaş HA, Dönmez A (2006) Jealousy in close relationships:

Personal, relational and situational variables. *Turkish Journal of Psychiatry*, 17(3):181-191.

Demirtaş HA (2004) Jealousy in close relationships (Personal, relational and situational variables). Unpublished doctoral dissertation. Ankara: Ankara University.

DeSteno DA, Bartlett MY, Salovey P et al. (2002) Sex differences in jealousy: Evolutionary mechanism or artifact of measurement? *J Pers Soc Psychol*, 83: 1103-1116.

DeSteno DA, Salovey P (1996) Evolutionary origins of sex differences in jealousy?: Questioning the “fitness” of the model. *Psychol Sci*, 7: 367-372.

DeWeerth C, Kalma AP (1993) Female aggression as a response to sexual jealousy: A sex role reversal? *Aggressive Behavior*, 19: 265-279.

Dreznick M (2003) Heterosocial competence of rapists and child molesters: a meta-analysis. *Sex Res*, 40(2) :170-178.

Fernandez A M, Vera-Villarroel P, Sierra JC et al. (2006) Distress in response to emotional and sexual infidelity: evidence of evolved gender differences in Spanish students. *J Psychol*, 141(1): 17-24.

Fink B, Grammer K, Thornhill R (2001) Human (*Homo sapiens*) facial attractiveness in relation to skin texture and color. *J Comp Psychol*, 115: 92–99.

Geary DC, DeSoto MC, Hoard MK et al. (2001) Estrogens and relationship jealousy. *Human Nature*, 12: 299–320.

Geary DC, Rumsey M, Bow-Thomas CC et al. (1995) Sexual jealousy as a facultative trait: Evidence from the pattern of sex differences in adults from China and the United States. *Ethology and Sociobiology*, 16: 355-383.

Goldenberg J, Landau M, Pyszczynski T et al. (2003). Gender-typical responses to sexual and emotional infidelity as a function of mortality salience induced self-esteem striving. *Pers Soc Psychol Bull*, 29: 585-595.

Guerrero LK, Eloy SV (1992) Relationship satisfaction and jealousy across marital types. *Commun Rep*, 5: 23-41.

Hansen GL (1982) Reactions to hypothetical jealousy producing events. *Fam Relat*, 31: 513-518.

Harris CR (2002) Sexual and romantic jealousy in heterosexual and homosexual adults. *Psychol Sci*, 13: 7-12.

Harris CR (2003) A review of sex differences in sexual jealousy, including self-report data, psychophysiological responses, interpersonal violence, and morbid jealousy. *Pers Soc Psychol Rev*, 7: 102–128.

Harris CR, Christenfeld N (1996a) Gender, jealousy, and reason. *Psychol Sci*, 7: 364-366.

Harris CR, Christenfeld N (1996b) Jealousy and rational responses to infidelity across gender and culture. *Psychol Sci*, 7:378-379.

Harvey JH, Sprecher S, Wenzel A (eds.) (2004) *The Handbook of Sexuality in Close Relationships*. Mahwah, NJ. Lawrence Erlbaum Associates.

Hupka RB (1981) Cultural determinant of jealousy. *Alternative Lifestyles*, 4: 310-356.

Hupka RB, Bank AL (1996) Sex differences in jealousy: Evaluation or social construction. *Cross Cult Res*, 30(1): 24-60.

Oliver MB, Hyde JS (1993) Gender differences in sexuality: A meta-analysis. *Psychol Bull*, 114: 29–51

Karakurt G (2001) The impact of adult attachment styles on romantic jealousy. Unpublished master thesis. Ankara: METU.

Kenrick DT, Sadalla EK, Groth G et al. (1990) Evolution, traits, and the stages of human courtship: Qualifying the parental investment model. *J Pers*, 58: 97–116.

Kenrick DT, Trost MR (1997) Evolutionary approaches to relationships. *Handbook of personal relationships: Theory, research and interventions*, S. Duck (Ed), Chichester. John Wiley & Sons, p. 160-175.

Mathes EW (1992). *Jealousy: The psychological data*. Lanham. University Press of America.

Mathes EW, King CA, Miller JK et al. (2002) An evolutionary perspective on the interaction of age and sex differences in short-term sexual strategies. *Psychol Rep*, 90: 949-956.

Mathes EW, Severa N (1981) Jealousy, romantic love, and liking: Theoretical considerations and preliminary scale development. *Psychol Rep*, 49: 23-31.

Mead M (1977) *Jealousy: Primitive and civilized*, Jealousy, G Clanton, L G Smith (Eds.), Englewood Cliffs, NJ. Prentice Hall, p. 115-126.

Samantha MM, Robin RV, Todd KS et al. (2006) Relationship experience as a predictor of romantic jealousy. *Pers Individ Dif*, 40:761–769.

Nannini DK, Meyers LS (2000) Jealousy in sexual and emotional infidelity: An alternative to the evolutionary explanation. *J of Sex Res*, 37 (2): 117-122.

Öner B (2001) Factors predicting future time orientation for romantic relationships with the opposite sex. *J Psychol*, 135(4): 430-439.

Peretti PO, Pudowski BC (1997) Influence of jealousy on male and female college daters. *Soc Behav Pers*, 25: 155–160.

Pietrzak RH, Laird JD, Stevens DA et al. (2002) Sex differences in human jealousy: A coordinated study of forced-choice, continuous rating-scale, and physiological responses on the same subjects. *Evol Hum Behav*, 23(2): 83-94.

Pines A, Aronson E (1983) Antecedents, correlates and consequences of sexual jealousy. *J Pers*, 51: 108-136.

Pines AM (1998) *Romantic Jealousy: Causes, symptoms, cures*. New York. Routledge, p.2.

Pines AM, Friedman A (1998) Gender differences in romantic jealousy. *J Soc Psychol*, 138: 54-71

Sabini J, Green MC (2004) Emotional responses to sexual and emotional infidelity: Constants and differences across genders, samples, and methods. *Pers Soc Psychol Bull*, 30: 1375-1388.

Sagarin BJ (2005) Reconsidering evolved sex differences in jealousy: Comment on Harris. *Pers Soc Psychol Rev*, 9: 62-75.

Sagarin BJ, Becker DV, Guadagno RE et al. (2003) Sex differences (and similarities) in jealousy: The moderating influence of infidelity experience and sexual orientation of the infidelity. *Evol Hum Behav*, 24:17–23.

Sagarin BJ, Guadagno RE (2004) Sex differences in the contexts of extreme jealousy. *Pers Relat*, 1: 319–328.

Scheib JE (2001) Context-specific mate choice criteria: Women's trade-offs in the contexts of long-term and extra-pair mateships. *Pers Relat*, 8: 371–390.

Shackelford TK, Buss DM (1997) Cues to infidelity. *Pers Soc Psychol Bull*, 23: 1034–1045.

Shackelford TK, Buss DM, Bennett K (2002) Forgiveness or breakup: Sex differences in responses to a partner's infidelity. *Cognition and emotion*, 16 (2): 299–307.

Shackelford TK, Voracek M, Schmitt DP et al. (2004) Romantic jealousy in early adulthood and in later life. *Human Nature*, 15: 283-300.

Trivers RL (1972) Parental investment and sexual selection. *Sexual selection and the descent of man: 1871–1971*, B. Campbell (Ed), Chicago. Adline, p. 136–179.

Ward J, Voracek M (2004) Evolutionary and social cognitive explanations of sex differences in romantic jealousy. *Aust J of Psych*, (56)3: 165–171.

White GL (1981) A model of romantic jealousy. *Motiv and Emot*, 5: 295-310.

Wiederman MW, LaMar L (1998) “Not with him you don't!": Gender and emotional reactions to sexual infidelity during courtship. *J of Sex Res*, 35(3): 288-298.

Wiederman MW, Allgeier ER (1993) Gender differences in sexual jealousy: Adaptionist or social learning explanation? *Ethology and Sociobiology*, 14:115-140.