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Sexual Conflict in Mating Strategies

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Abstract and Keywords

Men and women often come into conflict over issues of mating and sex. From an evolutionary perspective, we review the literature on attitudes toward casual sex, sexual intent, sexual harassment, rape, and deception of intent and mate value. Stemming from a key difference in parental investment (Trivers, 1972), men tend to be relatively eager for casual sexual partners, whereas women tend to be more cautious, requiring their sexual partners to be of higher quality or committed for a longer duration. This key difference, in turn, sets the stage whereby men and women negotiate their conflicted interests and enact their differing preferred mating strategies. As each side advances and protects its own reproductive interests, the other side's strategy is necessarily interfered with and conflict ensues, sometimes with severe outcomes.

Keywords: sexual conflict, mating strategies, deception, sexual intent, sexual harassment, rape, mate value, sex differences, evolutionary psychology

Introduction

In 1993, amidst financial troubles and a turbulent marriage, a husband forces his wife to have sex with him. Afterwards, she exacts revenge—not only for this specific act but for a history of sexual, physical, and emotional abuse, and for various sexual infidelities—by using a kitchen carving knife to cut off his penis (Stunell, 2007).

Although the outcome of the conflict between this particular man (John Wayne Bobbit) and woman (Lorena Bobbit) is severe, it demonstrates what can occur when the sexes clash over matters of mating and reproduction. In this chapter, we examine broad aspects of sexual conflict in mating strategies. First, we consider the evolutionary dynamics that underlie such conflicts. In particular, parental investment theory (Trivers, 1972) highlights that in most sexually reproducing species, females are physiologically obligated to make larger minimum reproductive investments than males. This profound difference, as it turns out, is largely responsible for the mating-related sexual conflict that occurs in humans and other species (Geary, 2009; Goetz & Shackelford, 2009). From this foundation, we consider what sexual conflict is really all about: sex (Symons, 1979). Here, we review some of the literature indicating that men tend to be more eager about casual sex whereas women tend to be more careful. This divergence leads men to overperceive sexual interest and, often to the detriment of women, to be more aggressive in pursuing sex. Finally, although honesty is considered a virtue, it is not quite the norm when it comes to mating strategies. Men and women engage in deceptive practices to obtain an edge and to profit at the other's expense. Therefore, we investigate the use of deception by men and women in their mating endeavors before closing the chapter with a consideration of future directions.

(h1) Underlying Issues: Setting the Stage for Sexual Conflict in Mating Strategies

The market for rental housing is a competitive market whereby landlords and tenants negotiate with each other and formally agree on a mutually acceptable arrangement for a fixed minimum amount of time. Typically, both sides are legally bound to uphold their end of the deal, and defection results in costly penalties for both tenants and landlords. Now, imagine what would happen if a new law stated that landlords would be strictly bound to uphold five-year leases, even if tenants default on their payments, but tenants could break a lease at any time. At least three consequences would be likely. First, there should be an increase in the demand for rental leases, which now offer quite favorable terms from the perspective of potential lessees. Second, renters, who sign leases but are not ultimately tied to them, may have greater incentive (or less disincentive) to move around more often, as they are now able to experience a number of new apartments with relatively little cost. Third, assuming that the supply of landlords was fixed (i.e., they could not switch to a more favorable business), landlords would likely adjust to the increased demand and increased costs by raising prices for new leases and becoming more selective about who they rent to. Credit checks would be scrutinized more carefully and references would be investigated more thoroughly to ensure taking on high-quality tenants who are not likely to default anytime soon, thereby leaving the landlord holding the bag for the five-year minimum duration.

A similar situation exists between males and females in the competitive sexual reproduction markets as in the above example for rental housing. In most species, females are bound by their physiology to make a significantly greater and longer minimum investment in offspring production and development. That is, if conception

occurs from sexual intercourse, it is usually the female who must bear the costs of pregnancy and post-birth parental care. Such costs are significant in terms of time, energy, health, and resources. As noted by Williams (1966) and formally proposed by Trivers (1972), as a result of this asymmetry in obligatory parental investment, females are generally the more valuable sex and have, in response, evolved to be more selective in their choice of mating partners. In contrast, males of most species are not required to contribute anything beyond their (relatively smaller) sex cells. As such, they have evolved to be less intersexually discriminating and to compete more intensely with each other for access to the reproductively more valuable resources offered by females (e.g., Andersson, 1994; Alexander & Noonan, 1979). Indeed, for mammals, gestation occurs inside the female and once offspring are born, females lactate, nourish, and nurture the offspring. In contrast, males compete with each other—often by engaging in dangerous combat—for sexual access to the females and typically contribute nothing in the way of parenting (e.g., Geary, 2000; Gould & Gould, 1989).

Sometimes, however, the roles are reversed. In species in which males make a higher parental investment, the males are more selective and the females compete for access to the males (Trivers, 1985). For instance, in various pipefish and seahorse species, offspring are brooded in the pouches of males. As such, these males are more reproductively valuable than their female counterparts, who have evolved to compete for access to males (e.g., Breder & Rosen, 1966). Similarly, male Mormon crickets have a large spermatophore that is especially valuable in ecologies where food is scarce. Because males effectively have more to offer, the roles are reversed (Alcock, 2009), such that female Mormon crickets have evolved to compete for access to males, who tend to

reject most of their potential mates. The playing-hard-to-get strategy serves an adaptive purpose to these males: compared to females who are passed over, females that do get chosen have greater fecundity (Gwynne, 1981).

In humans, females produce a limited number of ovum (300-400 in a lifetime), whereas males can generate millions of (smaller) sperm per hour (e.g., Rathus, Nevid & Fichner-Rathus, 2005). Offspring develop inside the female and, once born, are critically dependent on the mother for nourishment and nurturance for the first few years of life. Although males can and often do make significant parental investments (e.g., Clutton-Brock, 1989; Zeifman and Hazan 1997), their *minimum required* investment consists of an ejaculate and the time need to inseminate a female. Thus, human females are obligated to make a much larger parental investment. As such, females are more reproductively valuable and may have evolved to be choosier about potential mates because they can afford to be and because mating mistakes are costlier. Human males, on the other hand, have more to gain by simply obtaining sexual access (e.g., Bjorkland & Shackelford, 1999; Geary, 2009). As such, they have evolved to compete for sexual access to females (Trivers, 1972).

We can also view this dynamic as follows. Compared to human females, human males are biologically capable of terminating their investment in any particular female at any time and redirecting their resources elsewhere. Accordingly, males are able to increase their overall reproductive success by simply increasing the number of females that they have sexual intercourse with and impregnate. This strategy, however, does not produce the same effects for human females, who are potentially bound to several years of parental investment for any given sexual encounter. That is, females cannot conceive

more offspring when they are pregnant or lactating. Thus, an increase in the number of inseminations by different sexual partners does not tend to increase the number of offspring that a woman has. Instead, females can more effectively increase their overall reproductive success by ensuring that their sexual partners have sufficient genetic and material resources and that they are willing to share them (Buss & Schmitt, 1993; Symons, 1979). Therefore, whereas human males (more accurately, their genes) tend to benefit relatively more from pursuing a mating strategy of *quantity*, human females (their genes) tend to benefit more from pursuing a strategy of ensuring *quality*.

It is this difference in reproductive costs and benefits and thus, in preferred mating strategies, that sets the stage on which men and women negotiate sexual relationships with each other. As we will see, this divergence in mating strategies is a source for much potential conflict between the sexes (Goetz & Shackelford, 2009).

(h1) Eager Men and Cautious Women: Differences in Attitudes Toward Casual Sex

Stemming from differences in minimum required parental investment and the associated asymmetry in costs and benefits, men have likely evolved psychological adaptations to be relatively eager for casual sex, whereas women have likely evolved to be more cautious towards having casual sex (Buss & Schmitt, 1993). Indeed, much research supports these expectations.

In a pair of classic studies executed in 1979 and 1982 at Florida State University by Clark and Hatfield (1989), opposite-sex students were randomly approached on campus by experimenters and told, “I have been noticing you around campus. I find you to be very attractive.” They were then either asked to “go out with me”, “come over to my apartment” or “go to bed with me” that evening (p. 49). Both men and women were

equally likely to comply—about half of each sex said yes—with the request for a relatively innocuous date. However, as the likelihood of immediate sexual intimacy increased, the sexes greatly diverged in their responses. Whereas an average of only 3% of the women agreed to go back to the man’s apartment that night, 69% of men consented to heading to the woman’s apartment. For the more direct request for sex, not even one woman agreed. Indeed, many were clearly upset at having been sexually solicited (e.g., “What is wrong with you? Leave me alone.”). In stark contrast, an average of more than 70% of men agreed to the sexual invitation, with some even expressing greater urgency (e.g., “Why do we have to wait until tonight?”). Men who declined indicated mitigating circumstances (“I’m going (out) with someone”) and affirmed their underlying interest (e.g., “I can’t tonight but tomorrow would be fine”). A follow-up study allowed the researchers to rule out the possibility that these large differences were due mainly to women’s increased concerns for personal safety (Clark, 1990).

In a laboratory setting, participants were asked how likely they would consent to having sexual intercourse with an attractive, opposite-sex individual after being acquainted with that individual for different lengths of time from one hour up to five years. Men indicated a significantly higher likelihood of consenting for every length of acquaintanceship except for the maximum duration of five years, when women’s likelihood of agreeing to sex had finally caught up to men’s (Buss & Schmitt, 1993).

Similarly, individuals waiting for their flights at Chicago’s O’Hare International airport and students in introductory psychology classes were recruited for studies of mate preferences (Li, Bailey, Kenrick & Linsenmeier, 2002; Li & Kenrick, 2006). They were given varying budgets of “mate dollars” with which to design their ideal one-night stands

and long-term mates. Whereas the high budget afforded each person the ability to design a mate of overall high quality, the low budget was very restrictive and an ideal mate was constrained to be, on average, at the 20th–25th percentile level for each characteristic. Upon designing each ideal mate, participants were asked if they actually encountered the individual that they just designed, how likely would the participants be to accept this person as a long-term mate or one-night stand. Whereas men and women were equally likely to accept their ideal long-term mates, men were significantly more likely to accept their self-designed one-night stands and affair partners, regardless of overall quality. One male participant, assigned to the one-night stand condition, indicated that the bulk of the budgets were unnecessary: "It doesn't matter to me if she's deaf, dumb, blind, and retarded; I would still be interested." Although this man's complete lack of requirements for a sexual partner are not typical of all men, it is also clear that no female participant in any studies conducted by the authors has ever made a comment that is remotely similar.

Investigating minimum standards more directly, Kenrick and colleagues (1990) asked people to indicate the minimum acceptable percentile level for 24 different characteristics pertaining to a potential partner for a single date, sexual relations, steady dating, and marriage. Whereas women's minimum requirements started out relatively low for a date and rose steadily as the relationship became more sexual and significant, men's minimum requirements were low not only for dates but also for sexual relations. For instance, both men and women required potential dates to be at the median level for intelligence. Both sexes also required their steady dating and marriage partners to be clearly above the median on intelligence. However, whereas women required their sexual partners to be above the median on intelligence, men were willing to accept a sexual

partner with below-median intelligence. In fact, for a potential one-night stand, men only required a partner to be at the 31st percentile (Kenrick, Groth, Trost & Sadalla, 1993).

The results of these studies and many others (e.g., Hendrick, Hendrick, Slapion-Foote, & Foote, 1985; see Oliver & Hyde, 1993) reflect a central difference in men's and women's attitudes toward casual sexual relationships: men are more eager and women are more cautious. Indeed, men desire and anticipate having a greater number of sexual partners than women do (e.g., Buss & Schmitt, 1993; Schmitt, 2005; Simpson & Gangestad, 1991), desire greater sexual variety (Oliver & Hyde, 1993; Schmitt, 2003), and have more sexual fantasies (e.g., Ellis & Symons, 1990), especially those involving multiple partners (Trudel, 2002; Wilson, 1987). Behaviorally, men are by far the primary consumers of pornography (Malamuth, 1996; Petersen & Hyde, 2010), the primary customers of prostitutes (Burley & Symanski, 1981), and are more likely to engage in extramarital affairs (e.g., Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin & Gebhard, 1953). Such findings are consistent with men having psychological adaptations that promote obtaining sexual access to a large number of women (Buss & Schmitt, 1993).

In contrast, women may be aligned relatively more towards a quality strategy by preferring committed, long-term relationships. A person's sociosexual orientation is the extent to which he or she is comfortable having casual, uncommitted sex (Kinsey et al., 1948). Various studies have indicated that whereas men tend to be more sociosexually unrestricted (i.e., comfortable with casual sex), women tend to be more sociosexually restricted, requiring more psychological closeness before engaging in sexual relations (Jackson & Kirkpatrick, 2007; Penke & Asendorpf, 2008; Schmitt, 2005; Simpson &

Gangestad, 1991). Indeed, for women who are sociosexually unrestricted and have numerous sexual partners, sex is particularly associated with feelings of anxiety and vulnerability (Townsend, 1995; Townsend, Kline, & Wasserman, 1995). More generally, women who are sociosexually unrestricted and have had more one-night stands and sexual partners tend to have lower self-esteem (Mikach & Bailey, 1999). Thus, whereas men prefer short-term, casual sexual relationships, women tend to prefer long-term, committed relationships.

Further evidence of the divergent preference for relationship duration comes from research on sex ratios. In a competitive market, when supply outstrips demand, suppliers must lower their prices and deal with buyers on buyers' terms in order to induce buyers to transact. For example, the more vacant apartments that landlords have, the more likely they will have to lower their rents and offer incentives. On the other hand, when demand exceeds supply, buyers must deal with suppliers on suppliers' terms. Landlords with many interested prospective renters can raise the rent and do not need to offer any perks. Similarly, in mating markets, norms regarding sociosexuality differ depending on the local sex ratio (Guttentag & Secord, 1983). When women outnumber men, men are in charge and women conform to the short-term focus of men's mating strategies: sexual norms involve greater promiscuity and people marry later. In contrast, when men outnumber women, women are in charge and men conform to the long-term emphasis of women's mating strategies: sexual norms involve greater monogamy and individuals get married earlier.

(h1) Conflict Concerning If and When Sex Occurs

As a result of significant psychological differences in attitudes toward casual sexual relations and the divergent focus on short-term quantity versus long-term quality, it is not hard to imagine men's and women's mating strategies coming into conflict. Whereas women are reproductively interested in having sexual relations with high quality partners or partners of sufficient quality who are likely to parentally invest, men are reproductively interested in having many low-cost sexual relationships and to have them sooner versus later. In this section, we examine how these strategies come into conflict in the way that men and women infer sexual intent and how men, being more eager, may push for their interests while women, being more cautious, resist.

(h2) Error Management Theory

People often make judgments under conditions of uncertainty, whereby they do not know the exact states of variables relevant to their decisions (Tversky & Kahneman, 1974). This is especially true when dealing with other people, who themselves may not know, let alone reveal, what they are thinking or intending to do (e.g., Fichten, Tagalakis, Judd, Wright, & Amsel, 1992). In such cases, decision makers may follow heuristics that allow them to make reasonably good decisions (Gigerenzer, 2007). According to Error Management Theory (EMT; Haselton & Buss, 2000; Haselton, Buss, & DeKay, 1998), many decisions effectively pit a Type I error (falsely assuming a particular state exists) against a Type II error (falsely denying the existence of that state), whereby one error is costlier than the other (Green & Swets, 1966). For situations of reproductive consequence that recurrently presented themselves in ancestral environments, humans should have

evolved a systematic bias to make related decisions that favor the less costly error (Haselton & Buss, 2000; Haselton & Funder, 2005).

One such situation involves inferring sexual intent in opposite-sex others. For men, taking on additional sexual partners adds to the reproductive bottom line. At the same time, because women tend to be cautious about casual sex, men's casual sexual partners tend to be in short supply (Symons, 1979). Thus, a Type II error – incorrectly inferring no sexual interest and thereby missing an opportunity to have low-cost sex with a willing partner – means a loss of valuable reproductive resources. In comparison, a Type I error—incorrectly inferring sexual interest—results in a smaller cost of squandered time and courtship effort (Haselton & Buss, 2000). Thus, given this asymmetry, men may have evolved to over-infer sexual interest in women, thereby positioning themselves to make fewer Type II errors at the expense of making more Type I errors.

For women, however, the same cost asymmetry does not apply. That is, casual sex does not offer the same improvement of reproductive success and potential casual sexual partners are not in short supply. Thus, missing a sexual opportunity from falsely inferring a lack of sexual interest is not a particularly costly error for women. However, a potentially expensive error would be incurred if women have sexual relations after falsely inferring commitment—and thus, underlying interest in a long-term relationship—in their potential mates (Haselton & Buss, 2000). Such a mistake could lead to years of reproductive resources being tied up and a lack of paternal resources with which to raise offspring. In comparison, falsely interpreting that male commitment is insufficient and thus, requiring more evidence of (long-term) commitment before consenting to sex, is not

a costly error, as such an interpretation will likely have the effect of encouraging additional displays of quality, greater investment, and more commitment from would-be partners. Thus, due to asymmetries in errors associated with assessing male relationship commitment, women are expected to be biased to under-perceive such commitment (Haselton & Buss, 2000).

How do people respond when they make costly mating errors? Roesse and colleagues (2006) asked people to think about past events for which they have regret. The researchers found that whereas men more often regretted sexual omission—instances whereby the men did not act upon a romantic or sexual opportunity, women more often regretted sexual commission—instances whereby the women had consented to romantic or sexual activity with presumably low-investing men. These results suggest that men and women may have mental mechanisms to prevent them from repeating errors that, according to Error Management Theory, are particularly costly for each sex.

(h2) Sex Differences in Inferring Sexual Intent

To directly investigate sexual intent, Abbey (1982) conducted a study whereby people were randomly placed into male-female pairs and pairs were assigned to one of two roles: actors instructed to have a conversation for 5 minutes or observers instructed to watch the other pair's conversation through a one-way mirror. Both male observers and actors perceived her to be more promiscuous and more platonically, romantically, and sexually interested than female observers and actors did. Male actors and observers also reported greater sexual attraction toward the female actor than female actors and observers reported toward the male actor. Since then, similar findings have been reported in a variety of studies (e.g., Abbey, 1987; Abbey & Melby, 1986; DeSouza, Pierce,

Zanelli, & Hutz, 1992; Haselton, 2003; Haselton & Buss, 2000; Saal, Johnson, & Weber, 1989; Shotland & Craig, 1988).

Although various explanations have been proposed (see Lindgren, Parkhill, George, & Hendershotuch, 2008), Haselton and Buss (2000) empirically demonstrated that sex differences in perceived sexual intent fit well within the framework of EMT. Specifically, they showed that people are not simply projecting their own views onto their perceptions of sexual intent in opposite-sex others, and that men's perceptions of women's sexual intent is not the same for a potential mate as it is for a sister. This latter finding indicates that men are not simply ascribing greater sexual intent to all women but rather, just to those who constitute potential mates. When participants were asked about their own experiences, women did indeed report their friendliness to be frequently misinterpreted as sexual attraction, and more so than men reported female sexual overperception (Haselton, 2003).

Sexual misperception has also been found to spill over into friendships. For instance, an examination of opposite-sex friendships found that men consistently overperceived their female friend's sexual interest, as reported by the female friend herself (Koenig, Kirkpatrick & Ketelaar, 2007). The male overperception was mediated by the men's own sexual interest in their friend, such that men who were more sexually interested in their female friend perceived the female friend to be more sexually interested.

Thus, these results and various related others may reflect the sexes' divergent mating strategies. Whereas it tends to be in women's (specifically, their genes') reproductive interest to engage in long-term relationships and thus, to delay sexual

activity until mate quality and long-term commitment can be ascertained, it is not the case for men (their genes). Just the opposite, it is in men's reproductive interest to obtain sexual access as quickly and inexpensively as possible. Perceptions, however, remain perceptions unless acted upon. As suggested by various researchers (e.g., Abbey, McAuslan, & Ross, 1998; Johnson, Stockdale, & Saal, 1991; Malamuth & Brown, 1994), the sex differences in perceptions of sexual intent, as well as the underlying sex differences in desired sexual timing, may induce more severe behavioral conflicts.

(h2) Sexual Aggressiveness

In this section, we cover two categories of sexual aggressiveness in behavior: sexual harassment and rape. Whereas sexual harassment involves any unwanted or unsolicited sexual attention (typically in the workplace), rape more specifically focuses on the use of coercive physical force to achieve sexual intercourse (e.g., Yagil, Karnieli-Miller, Eisikovits, & Enosh, 2006).

(h3) Sexual Harassment: Strategic Interference in the Workplace

Undoubtedly, there are instances in which individuals do not express their relatively mismatched perceptions of sexual intent. And if they do (e.g., a man asks an uninterested female acquaintance to have dinner on a Saturday night), the consequences might simply involve slight embarrassment or awkwardness (Abbey, 1987; Haselton, 2003). However, the range of possible behaviors can have much more serious consequences. In recent decades, sexual harassment has become a topic of great interest to researchers, with several volumes having been written on this topic (e.g., Farley, 1978; Gutek, 1985; MacKinnon, 1979). In the modern workplace, men and women spend many waking hours coming into contact with each other and getting acquainted. As such, the

workplace is an environment that may be especially conducive to the development of potential romantic relationships (Quinn & Lees, 1984). However, this also means that it is a setting through which conflicts in mating strategies may readily occur. Indeed, in some work environments, up to 90% of women report having been sexually harassed (e.g., Reily, 1980).

In the United States and some other countries, there are sexual harassment laws that grant legal recourse to individuals who receive “unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature (US EEOC, 2010a). Such conduct may include staring in a sexually suggestive manner; making offensive remarks about looks, clothing, or body parts; touching (e.g., patting, pinching, or intentional brushing against another’s body); telling sexual jokes or displaying sexually suggestive posters; making sexual gestures; and sending, forwarding, or soliciting sexually suggestive letters, notes, emails, or images (Federal Communications Commission, 2010). Since the mid-1990s, over 10,000 sexual harassment charges have been filed each year and, consistent with the divergence in reproductive strategies, the large majority of filers are female (although the percentage of male filers is slowly increasing); (US EEOC, 2010b; Corr & Jackson, 2001; Gutek, 1985; Terpstra & Cook, 1985). The end result of these charges is an annual average of \$48 million compensation paid to victims of harassment (US EEOC, 2010b).

A particularly well-publicized sexual harassment case occurred when Paula Jones filed charges against President Bill Clinton in 1994. According to Jones’ testimony, Clinton, while he was governor of Arkansas, exposed his penis to Jones, an employee of the state of Arkansas at the time, and asked her for oral sex in a hotel room. Over the next

few years, the president's sexual history was investigated and made public but the eventual ruling was that the evidence for Jones having suffered any emotional damage was insufficient. Nevertheless, Clinton settled out of court for a sum of \$850,000 and paid an arguably larger price in terms of reputational damage. Subsequently, Paula Jones was divorced by her husband and appeared nude for Penthouse magazine to pay for mounting tax bills (Moran, 2002).

Another interesting case involves the supermarket chain Safeway. When the first author was in graduate school, he often shopped for groceries at a Safeway store in Tempe, Arizona. Upon going through the checkout lane one day, he was greeted by an attractive female clerk who smiled, made clear eye contact, and greeted him very warmly. Naturally, the male graduate student, single at that time and having recently been buried in classes, TA work, and a new mate preference study, perked up and started a conversation with the young woman. She responded favorably, continuing to maintain eye contact and a beaming smile. Shortly after the credit card signature had been obtained and the groceries had been bagged, the checkout clerk, still smiling, called out his name before having to tear herself away to attend to the next (less interesting, of course) person in line. The graduate student took one last glance at the clerk, who was *still* smiling, and came to the conclusion that she was potentially romantically interested. A few weeks later, he came through a checkout lane where the same woman was working (a coincidence, undoubtedly). Again, she was very friendly, remembering his name, smiling, and making direct eye contact throughout the conversation. The reliability, strength, and consistency of her behaviors provided a reasonable confirmation of the possibility of romantic interest and thus, prompted some additional testing of the waters.

Accordingly, the graduate student attempted to nudge the conversation beyond the superficial topics of the first encounter, but surprisingly sensed some implicit resistance that seemed to contradict the flirtatious behavior. Somewhat disappointed and baffled, the graduate student left the checkout lane soon thereafter and reasoned that he had somehow misinterpreted all the friendly behavior.

As it turns out, the female employee's friendly and potentially flirtatious behavior was part of an official "superior customer service" policy that Safeway management had re-established in 1998 (e.g., Ream, 2000). Employees were required to make direct eye contact and smile with customers and to call them out by their name, which is accessed when scanning in their Safeway cards or credit cards. Whereas the first author realized his Type I error relatively quickly, many other men did not. Various female employees were asked about their marital status, propositioned for dates, touched, grabbed, and followed after work to their cars. Five such employees filed formal charges with the Equal Employment Opportunity Commission, alleging that the Safeway program encourages sexual harassment by creating a hostile work environment ("Safeway Employees", 1998).

Though arguably atypical, the Safeway (Kanazawa & Savage, 2009) and Clinton cases nevertheless reflect the norm for sexual harassment to be directed at women by men. To explain sexual harassment and the specific direction that the harassment usually follows, various theoretical models have been proposed (e.g., Browne, 2006; Pina, Gannon & Saunders, 2009). For example, according to Gutek's (1985) sex-role spillover model, sexual harassment may occur when societally-assigned, gender-based roles are carried over to inappropriate situations such as the work place. According to sociocultural

theories, the sex asymmetry in sexual harassment is a manifestation of sexist ideology and the male desire to dominate women (Farley, 1978; MacKinnon, 1979).

From an evolutionary perspective, however, sexual harassment occurs when people in the workplace experience mating-related *strategic interference* (Buss, 1989a)—violations of one's preferred mating strategy. That is, much of the sexual harassment that occurs ultimately stems from fundamental sex differences in ideal mating strategies, whereby men are more eager for sexual relations and women are more cautious. In this view, laws governing sexual harassment effectively discourage and punish men (and some women) from pursuing an eager sexual strategy and acting upon potential overperceptions of sexual interest. Importantly, the definition of sexual harassment suggests that sexual attention may not be considered harassment if it is *welcome*. In other words, if no strategic interference has taken place and both parties are explicitly or implicitly amenable to potential sexual relations, then no one will be motivated to seek legal redress, and they may not be awarded any compensation if they do.

Some evidence for an evolutionary, mating-based perspective of sexual harassment comes from studies that have examined judgments of alleged perpetrators. For instance, Buss (2003) described an unpublished study that asked women to imagine a man who persistently asked them out on a date despite having been repeatedly turned down. When this man was a garbage collector, construction worker, cleaning person, or gas station attendant – occupations associated with low social status, women reported considerably higher levels of discomfort than when the man had high occupational status and was either a premedical student, graduate student, or successful rock star. Similarly, female flight attendants seem to be less embarrassed, nervous, and intimidated by

unwanted sexual attention from high status pilots than from lower status cleaning crew or ticket agents (Littler-Bishop, Seidler-Feller, & Oplach, 1982). Also, when considering a situation of ambiguous sexual harassment between a professor and a student (Till, 1980), both sexes ascribed less harassment to opposite-sex professors when the professors (who have high status) were also physically attractive. That is, men considered the female professor's behavior to be less harassing and women considered the male professor's behavior to be less harassing when the professors were physically attractive (LaRocca & Kromrey, 1999). Consistent with a mating perspective, these examples suggest that persistent sexual attention may be regarded as sexual harassment only if the initiator is undesirable as a potential mate.

Some studies focusing on the characteristics of the targets of sexual harassment are also consistent with a strategic interference perspective. For instance, people may be less likely to believe that a woman who claims sexual harassment was actually harassed if she is physically unattractive – and thus, less sexually desirable – than if she is physically attractive (Seiter & Dunn, 2000). When female students are described as trying to be sexy, people are less likely to interpret a male professor's remarks about her attractiveness as involving sexual harassment than if the alleged female victim is not trying to be sexy (Pryor & Day, 1988). In general, men tend to interpret ambiguous situations as involving less harassment than women do (e.g., Bensen & Thomson, 1982). More specifically, a consistent finding is that younger women tend to be more frequently harassed than older women (Gutek, 1985; O'Connell & Korabik, 2000; Studd & Gattiker, 1991; Terpstra & Cook, 1985), which is congruent with men's preference for younger, and implicitly more fertile, partners (e.g., Buss, 1989b; Kenrick & Keefe, 1992).

Not all studies (and their researchers) are supportive of an evolutionary perspective. For instance, a recent study found that women reported being more upset from harassment by higher status individuals than lower status individuals. The results were interpreted to support a sociocultural perspective and to “provide virtually no support for the prediction derived from evolutionary psychology” (Bourgeois & Perkin, 2003, p. 347). An earlier study conducted by Sheets and Braver (1999) attempted to address the validity of both evolutionary and sociocultural explanations by examining women's perceptions of a man's persistence in asking a woman out despite repeated rejections. Sociocultural theorists argue that sexual harassment stems from a harasser's relatively higher power and as such, sexual advances initiated from individuals with higher status should be considered as more harassing and upsetting than sexual advances initiated by individuals of lower status and power (Sheets & Braver, 1999). Although the overall effect of status on harassment was flat, mediational path analyses nevertheless indicated evidence for both perspectives. Consistent with the sociocultural perspective, higher status led to higher perceptions of power, which led to increased perceptions of harassment. However, consistent with an evolutionary perspective, higher status also led to greater perceptions of social dominance, which led to decreased perceptions of harassment. Such work highlights the potential compatibility of evolutionary and sociocultural explanations and the importance of more nuanced tests that sift between the two.

In summary, the modern-day workplace constitutes a potential mating market and thus, potential grounds for sexual conflict. To better understand sexual conflict in the workplace, a framework of evolved mating strategies can be applied. Various studies are

consistent with the possibility that sexual harassment typically occurs as a result of sexual conflict over mating strategies among co-workers. Men who are relatively more eager for sex may be suggestively indicating their interests toward women, who are strategically more hesitant. Importantly, sexual advances are more likely to be unwanted, and thus, viewed as harassment, if they involve less socially desirable male perpetrators and younger and more physically attractive female targets. Finally, an evolutionary perspective may be compatible with other theoretical perspectives, as more intricately designed studies have shown.

(h3) Rape

So far, we have discussed sexual harassment as unwanted sexual attention in light of conflicting mating strategies. A more direct and serious conflict involves forced sexual intercourse or rape. Although sexual coercion and partner rape constitute entire chapters in this volume, we provide an overview of rape here as it is a specific and extreme form of sexual harassment that could be a mating strategy or a byproduct of a mating strategy, often transacting between individuals with no prior sexual relations.

The occurrence of rape is not limited to our species. An often-cited example involves the scorpionfly (Thornhill, 1980, 1981). Male scorpionflies possess anatomical clamps or what has been described as “genital claspers”, that seem to serve no purpose except to hold female wings in place during forced copulation. The use of these clamps to obtain forced copulation with females, however, is but one of three observed male mating strategies, with the other two involving the presentation of food gifts (e.g., arthropods) to the female in exchange for sexual access. Forced mating, although a viable strategy, has also been found to be the least preferred strategy amongst the male scorpionflies. That is,

when males have access to viable food sources, they usually present food gifts to females, who are receptive to such gifts. Males that are smaller and less likely to be able to secure food sources, are more typically the ones who use their clamps to secure a mating (Thornhill & Palmer, 2000).

An example closer to home comes from orangutans (Wrangham & Peterson, 1996). There appear to be two male forms in orangutans: the adult and sub-adult types. Whereas adults are physically larger, more dominant, and better able to obtain matings with females, sub-adults are generally smaller and less dominant, and have difficulty finding willing sexual partners. Consistent with this distinction, sub-adult males have been found to be more likely to force females into copulation. As with the scorpionfly, the forced matings pursued by sub-adult orangutans are more the exception than the norm and seem to reflect conditional mating strategies. That is, when males are unable to provide females with the necessary resources for consensual sexual relations, or when they fail in intrasexual competition, males adopt sexual coercion as a last resort to gain sexual access.

Rape in humans is a subject of intense study, with the number of studies on the topic steadily increasing since the 1960s (Spitzberg, 1999). As in the case of sexual harassment, the focus has been on the victim, who is usually female. In a national sample of US female university students, about 54% reported some form of sexual victimization, while 27% reported experiencing rape or attempted rape (Koss, Gidycz & Wisniewski, 1987). Similar numbers have been reported in a New Zealand undergraduate sample (Gavey, 1991). According to an analysis of 120 studies in the literature, with a total

sample size of more than 100,000 individuals, almost 13% of women have been raped (Spitzberg, 1999).

One of the common misbeliefs about rape is that perpetrators are almost always strangers (Johnson, Kuck & Schander, 1997). Indeed, studies have shown just the opposite. For instance, in Gavey's (1991) sample, more than 80% of sexual victimization occurred with non-strangers such as acquaintances, boyfriends, or husbands. Banyard et al. (2007) found the same pattern of results, with females reporting that only 18% of perpetrators were strangers. Examining dates for which sexual coercion occurred, researchers found that victims knew the perpetrators for an average of one year (Muehlenhard & Linton, 1987). Thus, studies indicate that the majority of sexual coercion occurs not between strangers but between acquainted individuals who are likely within a mating context. Therefore, as with sexual harassment, the role of differing mating strategies should be viewed when considering and understanding rape.

Within an evolutionary psychological framework, some theorists have proposed that male rape might be an adaptive, conditional mating strategy (Thornhill & Thornhill, 1983; Shields & Shields, 1983), such as the ones employed by male scorpionflies and orangutans. Specifically, Thornhill and Thornhill (1983) argue that human rape occurs when men are unable to obtain a mate through competition with other men for resources and status. This has been termed as the "mate-deprivation hypothesis" (Lalumiere, Chalmers, Quinsey & Seto, 1996). The view from Shields and Shields (1983) is similar in several respects, although they attempt to also integrate sociocultural theories of male hostility and power. Both argue for greater attention to be paid to an evolutionary

perspective and advocate the use of a reproductive cost-benefit approach to understanding rape.

More recently, Thornhill and Palmer (2000) generated much controversy by presenting and evaluating two evolutionary conceptions of rape in a comprehensive book. On the one hand, rape may be a byproduct of other evolved mating mechanisms, such as the male desire for low-cost, sexual variety. On the other hand, rape could represent a specialized adaptation in men that is activated under favorable circumstances. In this case, men are also hypothesized to have various psychological mechanisms that promote this strategy, including being able to assess the vulnerability of potential rape targets, a rape mindset that activates when sexual access to consenting partners is not attainable, preferences for young and fertile females, and sexual arousal in response to female resistance to men's sexual advances (Thornhill & Palmer, 2000).

So far, the evidence for rape as an evolved mating strategy has been relatively mixed (for a discussion, see Buss, 2007). For instance, the mate deprivation hypothesis has not received much support with respect to its prediction that men who are unable to obtain mates will tend towards rape (Lalumiere et al., 1996; Lalumiere & Quinsey, 1996; Malamuth, Huppin, & Paul, 2005). In fact, men who reported being physically and nonphysically sexually coercive also reported having *higher* mating success and *more* sexual experience. Whether such reports correspond with reality or reflect perceptual biases remains to be answered. Also, while Thornhill and Thornhill's (1983) original analysis found a disproportionate number of rapists with low socioeconomic status, Lalumiere et al. (1996) did not find any relation between male sexual coercion and self-rated earning potential.

An important prediction made by the rape-as-adaptation hypothesis is that male rapists should have a specific preference, if not requirement, for fertile females. This is parallel to the disproportionate sexual harassment of young women discussed earlier. The potential costs of rape, in the ancestral past, were relatively large and included retaliation from the female, her kin, and her long-term romantic partners. Given such costs, an evolved strategy for male rape should be designed by selection to be particularly attuned to targeting females most likely to bear children. Indeed, rape victims seem to be disproportionately in their early 20s (Shackelford, 2002; Shields & Shields, 1983; Thornhill & Palmer, 2000; Thornhill & Thornhill, 1983), when fertility is highest, with almost 80% of rape victims in the age range of 16-34. It might be argued that this finding is a byproduct of women in this age group being more likely to associate with young men, who are themselves the age group most likely to engage in criminal activities in general. However, a comparison between the age distributions of rape and murder victims contradicts this explanation (Thornhill & Thornhill, 1983)—murder victims tend to be older than rape victims and are not concentrated among individuals in their 20s.

The most direct evidence of rape's potential reproductive benefits comes from pregnancy rates of rape victims. Gottschall and Gottschall (2003) found that, adjusting for contraceptive use, rape-pregnancy rates are near 8%, significantly greater than consensual-pregnancy rates of about 3%. The majority of rape-pregnancies were also concentrated in the 15-24 victim age range: of the 26 rape-pregnancies reported, 21 occurred in this age range. However, rapists' targeting of reproductively aged women may be interpretable from other mating mechanisms. When choosing partners, men are found to have a preference for young women (Buss, 1989b; Kenrick & Keefe, 1992), in

particular those in the most fertile age range (Kenrick, Gabrielidis, Keefe & Cornelius, 1996). Thus, rapists' choice of fertile targets might reflect an expression of typical male mate preferences. Greater pregnancy rates in rape victims might be due to male sensitivity to female ovulatory cues (Roberts et al., 2004; Singh & Bronstad, 2001), coupled with the fact that the successful rapist is, unlike non-rapists, unrestricted by female choice.

More recently, a more nuanced evolutionary conception of rape has been proposed (McKibbin, Shackelford, Goetz, & Starratt, 2008). These researchers, taking a domain-specific approach, propose that five distinctly different types of rapists may have evolved for specific functions: disadvantaged men, specialized rapists, opportunistic rapists, high-mating-effort men, and partner rapists. While further support for general or specific male rape adaptations is still needed, rape nevertheless constitutes a violation of females' mate choice and preferred mating strategy. To the extent that it was a recurrent process in the ancestral past, rape—for whatever ultimate reason—would have exerted selection pressures for female adaptations to prevent rape.

(h4) Evidence for Female Anti-Rape Adaptations

One candidate for a female anti-rape adaptation is psychological pain from rape. Whereas physical pain draws attention to a part of one's physiology that needs tending to, mental pain draws attention to the social circumstances leading to the pain and motivates avoidance of similar situations in the future (Nesse & Williams, 1994; Thornhill & Thornhill, 1991). For example, people become upset in response to having been sexually deceived, which prevents similar future mistakes (Haselton, Buss, Oubaid & Angleitner, 2005). A series of studies reported by Thornhill and Palmer (2000) found that rape

victims who were reproductively aged experienced more psychological trauma from rape, as compared to pre- and post-reproductively aged women. Furthermore, vaginal intercourse during rape led to greater psychological trauma – but only in reproductively-aged victims. This highlights the sensitivity of psychological pain to the magnitude of the reproductive costs involved whereby reproductively-aged women are the most likely to be impregnated by an undesirable mate as a result of rape.

Trauma experienced by rape potentially serves a corrective purpose, driving the victim to be acutely aware of relevant dangers in the future and to avoid them at all costs. But without previous experience, women also seem to avoid engaging in risky behaviors, especially when the cost of rape is highest. Such a situation exists when women are in their ovulatory phase (Chavanne & Gallup, 1998; Bröder & Hohmann, 2003). For instance, Chavanne and Gallup (1998) asked female participants to evaluate a set of activities on how likely they would make someone “vulnerable to sexual assault”. They then asked a separate group of females to indicate which activities, amongst the set, they had carried out in the past 24 hours. As predicted, using a composite score across all activities, participants showed the least risk-taking during the ovulatory phase. Criticizing their use of a composite risk-taking score, Bröder and Hohmann (2003) performed a follow-up variant of the study and found that ovulating women specifically increased *non-risky* activities, such as reading at home, while avoiding risky activities, such as getting drunk or walking alone in a park. Another intriguing study found that female handgrip strength significantly increased after women read a hypothetical sexual assault scenario and that this effect was specific to women in their ovulatory phase (Petralia &

Gallup, 2002). The researchers interpreted the findings as tentative evidence for a female adaptation to resist rape when pregnancy risk is highest.

Female rape avoidance behaviors have also been found to increase with other individual factors, such as greater physical attractiveness, already having a mate (McKibbin, Shackelford, Miner, Bates & Liddle, in press), and not being sociosexually oriented towards short-term, casual sex (McKibbin et al., 2009). In general, women's rape avoidance behaviors may serve the functions of avoiding strange men, avoiding the appearance of being sexually receptive, avoiding being alone, and having an awareness of one's surroundings in the interest of defensive preparedness (McKibbin et al., 2009).

Regardless of whether there are actual adaptations to rape or counter rape, it cannot be denied that rape is a sexual conflict and is evolutionarily relevant. Rape is costly to females in many ways: it circumvents female mate choice and reproductive timing, can cause physical injury, and might lead to abandonment by the female's current mate (Thornhill & Thornhill, 1983). However, females are not the only ones being forced into sexual intercourse.

(h4) Men as Rape Targets

In Spitzberg's (1999) analysis, it was estimated that about 3% of men have been raped. Amongst college students, about 20% of males reported past experiences of unwanted sexual intercourse (Struckman-Johnson & Struckman-Johnson, 1994; Waldner-Haugrud & Magruder, 1995). As with female rape victims, most male victims knew their perpetrators. For example, out of 41 cases of male rape reported by Struckman-Johnson and Struckman-Johnson (1994), only 2 were committed by strangers. Some of the most commonly used tactics by female coercers include getting their victims intoxicated,

persistent touching, and guilt induction (Waldner-Haugrud & Magruder, 1995). Indeed, Struckman-Johnson (1988) found that 52% of male victims reported being forced into sex by psychological pressuring, whereas the corresponding number for female victims was 16%. As described in the study, one man reported being threatened by his girlfriend to have sex if he did not want to break up.

Whereas no female victim reported feeling good about having been forced into sex, 27% of male victims did, at least when asked about their short-term emotional reactions (Struckman-Johnson, 1988). The same proportion of male victims, however, reported negative reactions towards the incident. It would be interesting to examine differences between men who react negatively to sexual coercion and those who do not. While being forced into sex should generally impose less reproductive cost on men than on women, there are situations where the costs might nullify, or even exceed, the benefits. For currently mated men, being coerced into sex by another woman might lead to accusations of infidelity and thus, potentially cause dissolution of the long-term relationship. An example of this scenario was enacted in the 1987 movie *Fatal Attraction*, whereby a married man played by Michael Douglas was having an affair with Glen Close's character. At some point, the man decided to end the affair, which had thus far been clandestine. However, the affair partner used psychological manipulation and other, more severe tactics to prolong their sexual relations.

Another cost is that a man with a supposed reputation for promiscuity might have greater difficulty finding a future long-term mate, all else equal. That is, men who are known to have had casual sex, whether by choice or by alleged coercion, might be less desirable as a long-term partner. Hence, men who are oriented toward pursuing a long-

term mating strategy or men who are otherwise already mated might be expected to respond more negatively to sexual coercion. These hypotheses stem from the reproductive cost-benefits approach of an evolutionary perspective and remain to be tested.

Why women would sexually coerce, let alone rape, is a puzzle in itself. Buss and Schmitt (1993) listed several possible benefits for female short-term mating, including exchanging sex for resources and protection, and obtaining good quality genes from physically attractive men. Unlike men who engage in consensual casual sexual mating relationships, sexually-coerced males would probably not have provided their female rapists with resources or protection, although subsequent threats and blackmail by the female might incline them to do so. As for the good genes hypothesis, whether raped men are more physically attractive—or at least more physically attractive than a woman's consensual sexual partners—is as yet unknown.

Another possibility is that sexual coercion, like short-term mating, might be used by some women to solicit potential long-term mates (Buss & Schmitt, 1993; Li & Kenrick, 2006). For instance, in a sample of college students, it was found that individuals who were not currently in relationships were more likely to experience unwanted sexual contact than those who were currently attached, and that this effect was stronger amongst men than women (although women, on average, experienced more unwanted contact; Banyard et al., 2007). Single men, who are preferred by women as sexual partners (Shackelford, Goetz, LaMunyon, Quintus, & Weekes-Shackelford, 2004), may be more likely to be available as potential mates than those who are attached. However, the behavior examined by Banyard et al. (2007) was not forced intercourse, but

unwanted sexual contact, such as “kissing, fondling, or touching”. It would be useful for future studies to further explore the profile of both male rape victims and female perpetrators, together with the motivations of these perpetrators.

(h4) Summary

Regarding rape, an evolutionary perspective provides a framework with which to integrate research and also allows one to generate further hypotheses regarding the specific traits or motivations of rapists and victims, whether male or female. Tests of these hypotheses would increase our understanding of the phenomena and aid in identifying at-risk individuals and preventing the highly undesirable behaviors of their would-be assailants. As the evidence shows, rape predominantly is directed at reproductively viable females by familiar men, and often in mating relationships. However, whether there are specific rape and anti-rape adaptations remains to be seen. Regardless, one point to stress is that, counter to what some have purported (e.g., Brownmiller & Merhof, 1992; Rose & Rose, 2000), evolutionary accounts of the origin of behaviors do not address the absolute morality of such behaviors, let alone justify them (e.g., Buss, 1990; Pinker, 2002). Neglecting the role of evolved mating strategies will necessarily lead to an incomplete understanding of rape and how best to reduce its occurrence.

(h1) Conflicts of Deception

Thus far, we have seen that sexual conflicts can occur in the process of evaluating the sexual intentions of potential mates and in enacting a mating strategy at the expense of one's reluctant potential partners. In this section, we look at another type of conflict that occurs when individuals misrepresent themselves or their intentions to further their

own goals. Although some deception is non-sex specific, an evolutionary perspective would predict that much of the deception revolves around the different mating strategies and mate-selection criteria used by men and women (Buss, 1989a; Haselton et al., 2005). By deceiving the other sex into believing that they are successfully enacting their own preferred strategy, the deceiving sex can improve the likelihood of receiving cooperation with its own strategy.

The prevalence of interpersonal deception has been documented in many studies. For instance, people appear to lie to others in more than a quarter of their everyday social interactions (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). In mating contexts, both men and women use a wide repertoire of deceptive acts, both intra- and inter-sexually (Buss, 1988; Haselton et al., 2005; Tooke & Camire, 1991). Sexual deception may involve a more active misrepresentation of one's sexual intentions as well as a more passive inflation of one's mate value, thereby driving a false bargain and strategically interfering with the target of deception. In line with the chapter's theme, we focus on intersexual deception and sex differences in tactics used, and we take a look at non-sex specific tactics. We also review some new findings with respect to deception in online dating. Finally, we turn to work on reactions to deception that also highlight the conflict between the sexes.

(h2) Active Deception – Sexual Intent

As described earlier, men consistently desire a greater number of sexual partners than women do (Buss & Schmitt, 1993; Oliver & Hyde, 1993) and this sex difference has been found across the globe (Schmitt, 2005). Given that men are more eager for sexual relations than women are, it follows that men, more than women, should go to greater

lengths – including being deceptive – to attain them. Indeed, men often lie in order to gain sexual access (Fischer, 1996; Marelich, Lundquist, Painter, & Mechanic, 2008; Muehlenhard & Falcon, 1990) and they do so more often than women do (Marelich et al., 2008). Fischer (1996) estimated that 1 in 4 college men have told lies to their potential mates with the intent to have sex, whereby the majority of such misrepresentations consist of exaggerations of one's love for a potential mate and commitment to a potential long-term relationship.

Of course, men are not the only ones who deceive. Women, more than men, report having used sexual teasing, defined as “an intentional offer then offer-withdrawal of sexual contact in some form” (Meston & O'Sullivan, 2007). Many women admit to being flirtatious toward men with whom they have no intention of having sex in order to extract favors from these men (Buss, 2003). Correspondingly, more men than women report having been sexually “led on” and report that they would be emotionally upset in response to being deceived about sexual access (Haselton et al., 2005). Such findings suggest that regarding sexual access, each sex may be misrepresenting cooperation with the other sex's preferred mating strategy in order to promote their own preferred strategy. That is, whereas men will feign long-term commitment in order to gain quicker sexual access, women may falsely indicate sexual interest in order to extract resources, protection, or further commitment.

Indeed, the effectiveness of deceptive tactics concerning sexual intent appears to vary according to whether the mating duration is long-term or short-term. For example, a study found that 4 out of the top 10 rated short-term mate attraction tactics used by women had to do with sexual access, such as making the male think of having sex with

her and actually having sex with him (Schmitt & Buss, 1996). However, none of these 4 short-term tactics appeared in the top 10 tactic list for attracting a long-term mate.

Instead, the only item involving sex was actually “avoiding sex with men other than him (target mate)”. In a sample of newlyweds, Buss (1988) also found that women were more likely to report having acted coy and having played hard-to-get as tactics in attracting their spouse. Thus, while sexual teasing might be an effective female strategy to extract favors and resources from men who are trying to employ a short-term mating strategy, it may also have the effect of allowing women to more effectively fulfill a long-term mating strategy.

On the other hand, greater lying in men seems to be associated with a short-term mating strategy. For instance, men who are narcissistic, Machiavellian, and psychopathic – traits associated with a manipulative social style (Paulhus & Williams, 2002) – tend to be more sociosexually unrestricted, have more lifetime sexual partners, and more actively seek out short-term sexual partners (Jonason, Li, Webster, & Schmitt, 2008). Men who deceive potential mates tend to have more sexual partners, shorter lengths of longest reported relationship (Seto, Khattar, Lalumiere, & Quinsey, 1997), more one-night stands, and a lower need for love (Marelich et al., 2008). Deceptive men also seem to be more socially skilled with the opposite sex, expressing more confidence that they are able to approach and initiate interactions with unfamiliar women (Muehlenhard & Falcon, 1990).

(h2) Passive Deception – Mate Value Inflation

To attract a larger number of high-quality clientele, sellers might exaggerate or otherwise inflate their promotion of products or services. For instance, apartment

complexes might dress up a model unit with extravagant upgrades – fancy wallpaper, plush carpets, and other desirable amenities – that are not part of the rather plainly adorned apartments that are actually being rented. Similarly, potential renters might suggest that they are individuals with stable careers and an intention of honoring a 2-year lease when in fact they have shoddy credit or other issues that will prevent them from making consecutive and timely rent payments. Given the competitive nature of mating markets (e.g., Guttentag & Secord, 1983), it is not surprising that men and women may also attempt to inflate their own value as mates in order to get an edge over competitors on attracting higher quality mates.

(h3) Mate Preferences

When considering short-term, casual sexual partners, both men and women especially value physical attractiveness (e.g., Buunk, Dijkstra, Fetchenhauer & Kenrick, 2002; Kenrick et al., 1993; Regan & Berscheid, 1997; Regan, 1998; Sprecher & Regan, 2002; though for different underlying reasons – see Li & Kenrick, 2006). For example, Fletcher, Tither, O’Loughlin, Friesen, & Overall (2004) had people choose between pairs of individuals who were very high or very low on 3 factor-analyzed dimensions. Both sexes preferred a short-term affair partner who was high on attractiveness/vitality over one who had high warmth/trustworthiness or high status/resources. Similarly, Li & Kenrick (2006) examined people's mate preference priorities with a budget allocation program and a mate screening paradigm and found that both sexes valued physical attractiveness much like an economic necessity, prioritizing this trait over various others. Indeed, physically attractive individuals seem to enjoy more success achieving their sex-differentiated mating strategies. Whereas a man's physical attractiveness is associated

with having had more short-term sexual partners (Gangestad & Thornhill, 1997; Rhodes, Simmons, & Peters, 2005), a woman's physical attractiveness is associated with a history of more long-term relationship partners (e.g., Durante & Li, 2009).

However, whereas a woman's social dominance does not make a difference to men's valuation of her desirability as a sexual partner, a man's social dominance is considered sexually attractive to women (Gangestad, Garver-Apgar, Simpson, & Cousins, 2007; Gangestad, Simpson, Cousins, Garver-Apgar, & Christensen, 2004; Sadalla, Kenrick, & Vershure, 1987). For long-term relationships, only men highly prioritize having an average amount of physical attractiveness in their mates. Women, instead, give higher priority to ensuring that a potential mate has sufficient social status and resources (Li et al., 2002). Indeed, the higher importance that women place on status and resources has been found in various studies across decades and cultures (Buss, 1989b; Buss, 2003; Hill, 1945; Sprecher, Sullivan & Hatfield, 1994). Because these traits indicate what is desirable in potential mates, they should also reflect what people value in themselves (e.g., Li, 2007) and thus, what they attempt to inflate or misrepresent to the opposite sex.

(h3) Inflating Men's Long-Term Mate Value

To examine self-promotional mating tactics, Buss (1988) utilized an act nomination/frequency rating approach (Buss & Craik, 1983) and found that men reported a greater tendency than women to display and brag about their resources. Using a similar methodology, Tooke and Camire (1991) examined the use and effectiveness of acts and tactics of intersexual deception. Towards women, men tended to misrepresent their commitment (e.g., "I pretend to be interested in starting a relationship when I'm really

not"), sincerity (e.g., "I appear to be more trusting and considerate to members of the opposite sex than I actually am"), and ability to acquire resources (e.g., "spending money on the opposite sex when one really cannot afford it"). In other words, men inflated their value to women as a potential long-term mate. In contrast, when dealing with other men, men tended to exaggerate their level of success in short-term mating ("I exaggerate about the number of sexual partners I have had..."). Such tactics were also rated as the most effective deceptive acts for intersexual and intrasexual competition.

(h3) Inflating Women's Mate Value

As women age beyond their mid-20s, fertility declines and decreases in estrogen are accompanied by changes in appearance. Lips become thinner and less colorful, hair loses luster and softness, skin wrinkles, muscle tone decreases, breasts and buttocks lose shape, and the waist expands (Singh, 1993; Symons, 1979). To ensure that their mates are reproductively viable, men may have evolved to value physical features such as soft hair, smooth skin, full lips, colorful cheeks, good muscle tone, a low waist-to-hip ratio, and well-defined secondary sexual characteristics including breasts and buttocks (e.g., Cant, 1981; Johnston & Franklin, 1993; Manning, Scutt, Whitehouse, & Leinster, 1997; Singh, 1993; Symons, 1979, 1995). The prevalence of cosmetics and cosmetic surgery (each constitutes a multi-billion dollar market) is indicative of modern women's underlying awareness that each of these features is tied to their mate value and that women may benefit by altering the appearance of these features to resemble what they might look like in a healthy, young woman (e.g., Singh & Randall, 2007).

In general, women's competitive and deceptive tactics revolve around enhancing their physical appearance. For instance, in Buss's (1988) study of intrasexual competition

tactics, women were much more likely than men to spend time and effort on activities such as wearing facial makeup, using makeup to accentuate looks, sun tanning, and wearing attractive outfits. Similarly, in Tooke & Camire's (1991) study of deception, women were significantly more likely to endorse acts and tactics related to giving the appearance of being more attractive than a person really is. For instance, women were more likely to wear dark clothing to appear thinner, suck in their stomach in the presence of men, and dye their hair. Such physical enhancement tactics seem to be more frequently used because the users perceive them to be most effective in attracting mates (Buss, 1988; Tooke & Camire, 1991).

Because physical attractiveness is especially important to men and because the attractiveness of a woman's (natural) features is tied to her age, it follows that women, more so than men, should also be concerned about the presentation of their age. In an examination of personal advertisements, Pawlowski and Dunbar (1999) found that a greater proportion of female than male advertisers failed to declare their age, and that older females had an increasing tendency to report their age as a range, thereby indicating intentional ambiguity. Using several other attributes of the undisclosed-age advertisements, Pawlowski and Dunbar estimated the age of these advertisers to be between 40 and 50 – at or near end of women's reproductive years.

The case of Cindy Jackson perhaps embodies the essence of female deception. The Guinness World Record holder for “Most Cosmetic Surgery Procedures” has elected to receive more than 50 cosmetic surgeries, including various facelifts, nose jobs, lip enhancements, breast implantations (and removals), liposuctions, eye lifts, and jaw-reshaping procedures (“Cindy Jackson,” 2010). A collage on her website shows how, as

she aged from her 20s to her 50s, she, unlike most women, actually became *more* physically attractive and younger in appearance (<http://www.cindyjackson.com>).

(h3) A New Frontier for Deception: Online Misrepresentation

The studies cited above are not without their shortcomings. First, samples were generally restricted to undergraduates, which limits the external validity of findings (but see Buss 1988, Study 2). Second, it is inherently problematic to rely on self-report measures when the relevant behaviors themselves involve misinformation. Two recent studies examining naturalistic deception in online dating profiles circumvent these problems (Hancock & Toma, 2009; Toma, Hancock & Ellison, 2008). Toma et al. (2008) recruited participants from a range of online dating sites, first recording data from the online profiles of these participants, and then obtaining their actual height, weight and age in the lab. More than 80% of participants misrepresented themselves on at least one of the three attributes. Importantly, the researchers found significant sex differences in deception: whereas men tended to exaggerate their height, women tended to understate their weight. These differences mesh with female mate preferences for taller men (Ellis, 1992; Kurzban & Weeden, 2005; Li & Kenrick, 2006) and the male emphasis on physical body shape (Singh, 1993). However, contrary to Pawlowski and Dunbar's (1999) findings, there were no sex differences in age misrepresentation. This was likely due to an overrepresentation of young men and women in the sample, who are not predicted to falsify their age. Unfortunately, actual financial resources and status were not measured, so the male propensity for resource exaggeration could not be tested. However, a self-report measure in the study did find that men perceived lying about their education and income to be more acceptable than women did (Toma et al., 2008).

A similar study specifically examined physical deception (Hancock & Toma, 2009). This time, participants' online profile photographs were compared with actual photographs taken in the lab. Independent judges rated how accurately the profile photograph represented the participant, as seen from the lab photograph, while trained coders made more specific comparisons, noting apparent discrepancies in hair style and age, or indications of photographic retouching. Overall, female photographs were rated as less accurate, having more discrepancies and a greater likelihood of retouching than male photographs. Although the previous study did not find sex differences in age falsification (Toma et al., 2008), this study found that women tended to use significantly older photographs in their online profile. In fact, one woman reported using a picture from 20 years ago. The emergence of female age deception here might be attributed to the greater ease with which birthdates versus the dates of photographs can be verified.

Even more recently, researchers assembled an extensive survey on online deception with a sample of more than 5000 online daters (Hall, Park, Song & Cody, 2010). It was found that men were more likely than women to misrepresent their personal assets, such as education and income, although the effect missed the more stringent levels of statistical significance used in the study. Consistent with Toma et al. (2008), women were more likely to misrepresent their weight. There were also sex differences in age misrepresentation. Although both older women and men were more likely to lie about their age, men under 50 indicated a greater likelihood of lying. While the findings for female age deception seem to cohere with evolutionary predictions, those for male age deception are not readily interpreted. Although women are generally more amenable to dating older men, they still prefer men who are close to their own age or a few years

older (Kenrick & Keefe, 1992). Thus, men who are not in their early to mid-20s but are attempting to be competitive for the most attractive young women may be motivated to appear closer to their female targets' age. This possibility will need to be more carefully examined in future studies.

(h3) Sex Similarities in Mate Value Inflation

Deception tactics are not necessarily sex-specific. To the extent that both sexes value the same traits in a partner, we expect that deception in such traits would occur with equal frequencies for both men and women. For instance, although there are consistent sex differences in preferences for physical attractiveness and social status (e.g., Buss, 1989b), both sexes highly and equally value traits such as kindness and understanding (e.g., Buss, 1989b; Buss & Barnes, 1986; Li et al., 2002). As such, we would expect both sexes to be motivated to misrepresent such characteristics to potential mates. In fact, they do: both men and women report not only acting nice (Buss, 1988) but also feigning trustworthiness, sincerity, and kindness (Tooke & Camire, 1991).

A series of studies examined deception by measuring differences in self-presentation towards prospective dates (Rowatt, Cunningham & Druen, 1998, Rowatt, Cunningham & Druen, 1999). Participants were given profiles of two potential dates, whereby one was more physically attractive than the other. Besides photos, each profile also contained a bogus questionnaire listing the traits of the individual's ideal date, such as being gentle, kind, helpful, and aware of others' feelings. Following this, participants were asked to rate themselves on a set of similar traits, once for each potential date, under the knowledge that their "profiles" would be forwarded to these "dates" for selection. An overall deception score was assigned to each participant by summing his or her

alterations (inconsistencies) across all traits. Across all three studies, both men and women tended to alter their self-presentation to suit the ideals of the more physically attractive date (Rowatt et al., 1998, Study 2; Rowatt et al., 1999). Because the researchers used an overall measure of deception, it is unknown if sex differences in deception were present in individual traits. Only the second study of Rowatt et al. (1999) addressed individual willingness to deceive with respect to specific categories, including personal appearance and income. Although no sex differences were found, this might be attributed to a lack of specific tactics within each category, such as the ones used by Buss (1988) and Tooke and Camire (1991).

(h2) Summary

Deceptive practices used in mating contexts seem to be attuned to the mating strategies and preferences of the opposite sex. To give themselves a competitive edge in being desirable to women, men engage in deceptive practices to project a higher interest and greater ability to invest in long-term relationships. Women, on the other hand, being constrained by greater required parental investment (Trivers, 1972), have evolved to be more careful about engaging in sexual relations and to prefer a strategy of obtaining mate quality over quantity. Hence, women capitalize on men's eagerness for sexual access by deceptively indicating sexual interest in order to extract resources and to induce further signs of commitment. Additionally, women accentuate and exaggerate their physical attractiveness and, when older, obscure their age in an effort to appear more desirable in the eyes of men. Because both sexes consensually value traits such as kindness, trustworthiness, and sensitivity in their mates, both men and women also misrepresent

themselves in a positive light on these dimensions to the opposite sex. These patterns emerge across multiple contexts, using a variety of measures.

Given that deceptive practices are commonly used and may have even evolved as part of each sex's mating strategy, individuals who are easily deceived would incur a reproductive disadvantage, relative to those who are more perceptive of misrepresentation. To the extent that deception was a recurrent feature of the ancestral mating markets, there would be selection pressure for skills at recognizing deception. Indeed, although a substantial proportion of both men and women report being deceived and express upset at being lied to (Haselton et al., 2005), there is also evidence that both sexes are aware of opposite-sex deception (e.g., Benz et al., 2005; Keenan, Gallup, Goulet & Kulkarni, 1997) and those who are not in committed relationships are especially adept at detecting deceit (Johnson et al., 2004). Thus, the sexes may be engaged in an evolutionary arms race whereby each sex becomes both more skilled at deceiving, and recognizing deception.

Conclusion

As we have seen, much of the research on sexual intent, sexual harassment, rape, and sexual deception is consistent with an evolutionary mating perspective. From this perspective, such conflicts originate from sex differences in parental investment. Although men often invest heavily in their children, only women are physiologically required to make a substantial initial parental investment (Trivers, 1972). This key difference sets the stage for different optimal mating strategies for men and women. Whereas men have evolved to seek greater numbers of fertile mates, women have evolved to be more careful about ensuring that potential sexual partners are of high

quality and are willing and able to invest (Buss & Schmitt, 1993; Schmitt, 2005; Symons, 1979). Thus, as numerous studies suggest, the sexes' preferred mating strategies will often come into conflict. Compared to women, men's eagerness for sex tends to induce overperceptions of sexual intent and greater sexual aggressiveness, which may result in sexual harassment and even coerced sex. Furthermore, in order to induce cooperation for its own preferred sexual strategy, each sex often deceives their potential partners—through false indications of sexual intent (or lack thereof) and mate value inflation—into perceiving that the potential partners are successfully enacting *their* preferred sexual strategies. Somehow, through the haze and wreckage caused by deceptive signals, misperceptions, and aggression, various short-term and long-term relationships are successfully initiated. However, as will be shown in other chapters, the battle of the sexes does not stop there.

Future directions

As we have seen, a host of interesting research in recent years has shed light on sexual conflict in mating strategies. However, there are still various important dimensions related to this topic that have yet to be investigated or considered. In this section, we describe a few such areas.

Although researchers have focused on uncovering and explaining sex-typical patterns of mating conflict, sex-atypical conflict nevertheless occurs and requires further examination. For instance, in an analysis of Gutek's (1985) data by Studd and Gattiker (1991), female harassers were found to be disproportionately younger, single, and more attractive than the average working woman. From an evolutionary perspective on mating conflict, such female harassment might be interpreted as attempts by unmated women to

solicit potential partners (see Studd & Gattiker, 1991). However, why especially desirable women would need to harass their potential mates is baffling and requires further explanation.

Also, though sex differences in preferred mating duration (short- vs. long-term) constitute an important distinction—indeed, one that underlies this entire chapter, mating duration itself has been relatively neglected as a contextual variable. That is, research from an evolutionary perspective and thus, our chapter, has tended to focus on men's misperceptions and use of aggressive tactics to gain short-term sexual access and women's misperceptions and use of tactics to secure long-term investment. However, members of both sexes obviously engage in both types of relationships (and some in-between, hybrid relationships—see Jonason, Li, & Cason, 2009). Thus, a more thorough examination of mating conflicts should systematically compare sexual conflict across mating contexts. We would expect mating duration to interact with relevant sex differences. For example, physical attractiveness is considered a necessity in short-term mates for both men and women (Li & Kenrick, 2006). Hence, both women and men who are considering a short-term sexual relationship should be especially motivated to accentuate and deceive others about their physical attractiveness. On the other hand, because women prioritize resources and status in long-term mates (Li et al., 2002), men who are seeking long-term mates should tend to exaggerate their social status and ability to acquire resources.

We have examined various behaviors from an evolutionary perspective on mating strategies. However, we do not argue that mating strategies are the sole applicable perspective. Rather, we purport that it may be worth exploring the compatibility between

a mating strategies framework and other theoretical perspectives. A consideration and integration of these other perspectives can lead to a more comprehensive understanding of sexual conflict. For instance, a large quantity of literature has been amassed on sexual harassment and rape from feminist and sociocultural perspectives (e.g., Pina, Gannon & Saunders, 2009; Ward, 1995). A consideration of such literature may provide evolutionary psychologists with a greater understanding of the proximate mechanisms and greater insights into how different sexual conflicts actually emerge from the dynamics of everyday social interactions (e.g., Kenrick, Li, & Butner, 2003; Kenrick, Maner, & Li, 2005).

Similarly, sociocultural researchers can benefit from a consideration of what evolutionary psychologists have to say. For instance, sociocultural theories have tended to focus exclusively on the female viewpoint. This is understandable, given that women are predominantly the targets of sexual harassment and rape, and that the most serious sexual conflicts have a greater negative impact on women than on men. However, as we have seen from an evolutionary perspective, such conflicts are often traceable to underlying differences between the mating strategies of both sexes. Thus, a consideration of the male (mating) perspective may allow socioculturalists to more thoroughly understand the sexual motivations and contexts behind the rather severe negative outcomes that women face.

Finally, future research may benefit from a greater consideration of the less visible and more long-term negative consequences of deception and mating conflict. For instance, many individuals in Haselton et al.'s (1988) study indicated that they would be very emotionally upset in response to various specific acts of deception. Such findings

suggest a host of potential questions. Do deceived people suffer a hit to self-esteem and thereby reduce their expectations for future potential mates? Or does the likelihood increase that they themselves respond with deception? What happens when people do not implicitly "learn" or "deceive back"? Do such individuals become increasingly frustrated?

One particularly chilling recent case suggests so. George Sodini, a 48-year old computer programmer, kept an online diary for nine months where he wrote about his frustrations with women: "Women just don't like me. There are 30 million desirable women in the US (my estimate) and I cannot find one. Not one of them finds me attractive." Despite repeated efforts to improve his mate value by working out and tanning, Sodini had struck out with various women and had been without a girlfriend for 25 years and without sex for 19 years. On August 4, 2009, he entered his health club with concealed handguns. Turning the lights off in a women's aerobics class, he opened fire, managing to kill three women before killing himself (Associated Press, 2009). Although it is not clear that Sodini was necessarily deceived at any point, the bitterness with which he describes numerous mating-related observations and details does suggest at least two decades worth of failed efforts to execute a successful mating strategy. Thus, a more extensive investigation of extreme cases such as this one, as well as the one described in the opening of this chapter, might reveal further insights about sexual conflicts over mating strategies. Likewise, a longitudinal study of the negative consequences of deception and failed mating may provide insights into the prevention of potentially severe and deadly outcomes of mating conflict.

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