Chapter 10: Sexuality in the Context of Relationships

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Over six decades ago in *Is Sex Necessary?* James Thurber and E. B. White (1950) commented, "while the urge to eat is a personal matter which concerns no one but the person hungry . . . the sex urge involves, for its true expression, another individual. It is this other individual that causes all of the trouble" (p. 161-162). Although sex is sometimes solitary, to be sure, intimate relationships provide the context and the backdrop for the overwhelming majority of sexual experience (see review by Willetts, Sprecher, & Beck, 2004). While "trouble" may arise due to partners having conflicting sexual interests and desires, sexual interactions in romantic relationships are equally ripe with opportunities for intimacy and pleasure (see review by Impett, Muise, & Breines, in press).

Despite the fact that most dyadic sexual behavior occurs in the context of ongoing romantic relationships, until relatively recently, scholars have devoted scant attention to linking what we know about human sexuality with what we know about close relationships. Thus, the study of sexuality and the science of relationships have developed as two rather distinct research traditions—each with their own journals, professional organizations, and academic conferences (Diamond, 2010). Scientists in these two traditions have amassed an incredible amount of data and made significant strides in advancing what we know about human sexuality and what we know about close relationships. A few landmark studies in each of these traditions are illustrative. Beginning with research on sexuality, in the 1940s, Kinsey conducted in-depth interviews with 5,300 men and nearly 6,000 women regarding such topics as frequency of sexual behavior in marriage and same-sex behavior and attraction (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). In the 1990s, the first nationally representative study of sexuality was conducted. The National Health and Social Life Survey (NHSLS) involved the collection of data from 3,432 participants and was specifically designed to investigate social and dyadic factors in human sexuality such as sexual satisfaction, same-sex attraction, and partner matching on sexual preferences (Laumann, Gagnon, Michael, & Michaels, 1994). Turning to research on close relationships, in the 1970s, the Boston Couples Study involved the random

sampling of college students in 231 heterosexual dating relationships (e.g., Peplau, Rubin, & Hill, 1977). Some sexuality-related topics were covered including sexual intimacy and sex-role attitudes in relationships. In the 1980s, the American Couples Study provided extensive survey data from both members of thousands of married, cohabiting heterosexual, and lesbian and gay couples on such topics as negotiations in the bedroom, sexual initiation, and extradyadic sexual relationships (Blumstein & Schwartz, 1983).

Despite the tremendous growth of both of these fields in the past few decades, their growth as separate areas of scholarship means that fundamental questions about how sexual feelings, thoughts, and behaviors shape the development and maintenance of ongoing romantic relationships remain unanswered. Similarly, there is much to be learned about how relationship processes influence and shape sexuality in turn. Our intention in writing this chapter is to discuss where we are in the study sexuality and romantic relationships and to offer our thoughts about where we have yet to go. We begin by drawing attention to the major conceptual frameworks and methods that have shaped the questions asked as well as the answered researchers provide about the role of sexuality in romantic relationships. Given the pervasive role of gender in shaping sexual interactions in ongoing romantic relationships and to provide a backdrop for the rest of our review, we discuss key male-female differences in sexuality early on in the chapter. Then, we discuss how sexuality is involved in the formation and development of romantic relationships, specifically focusing on the role of sexual attraction. We will then turn to the role of sexuality in the maintenance of ongoing romantic relationships with an emphasis on attachment, sexual desire, and sexual satisfaction. Then, we review research on sexuality in the context of same-sex relationships, as well as across the lifespan from adolescence and to later adulthood. Finally, we consider the dark side of sexuality in romantic relationships, focusing on the topics of sexual aggression, extradyadic sex, and sexual jealousy. In each section of the chapter, we consider important directions for future research, and we conclude the chapter by discussing how several recent societal

trends are changing the ways in which we conduct research on sexuality and relationships, as well as the very ways in which sexuality is pursued and negotiated across relational contexts.

Conceptual and Methodological Issues

The study of sexuality in relational contexts involves several key conceptual and methodological issues that are important to address at the outset of this chapter. These issues include the definition of sexuality, the need to integrate the vast literature on sexual risk with the growing literature on sexual pleasure, as well as specific issues regarding sampling and measurement.

Defining Sexuality

Our understanding of the role of sexuality in romantic relationships is constrained by what has traditionally been a narrow conception of sexuality. Much of the research on sexuality and relationships has focused on sexual behavior, and on sexual intercourse in particular (even more specifically, penile-vaginal intercourse). An important limitation of this narrow definition of sexuality is that it suggests that only a small number of behaviors count as "real sex" (Sanders & Reinisch, 1999). Consequently, sexuality and relationships researchers know far less about other physically intimate behaviors such as touching, kissing, and non-coital sexual behaviors. Further, existing research on these other behaviors is limited to understanding their meaning and significance *post*-coitus (Hughes & Kruger, 2011; Kruger & Hughes, 2010). Understanding if and how engaging in a broad range of physically and sexually intimate behaviors contributes to the quality of ongoing romantic relationships is an important direction for future research.

Even more problematic than limiting the study of sexuality to sexual intercourse is the fact that many researchers fail to define what they mean by "sex." Thus, in many studies, we cannot know for sure the extent to which the participants' understanding of the questions matches what the researcher originally had in mind (Schwartz, 1999). Accumulating evidence has documented substantial variability in people's definitions of terms such as "sex," "sexual partner," and "having sex." Although most people tend to agree that penile-vaginal penetration is a form of having sex (Pitts & Rahman, 2001;

Sanders & Reinisch, 1999), they tend to disagree about whether or not other sexual behaviors should be included in the definition. For example, only about 25-50% of college students include oral-genital contact in their definition of sex (Bogart et al., 2000; Peterson & Muehlenhard, 2007; Sanders & Reinisch, 1999; Trotter & Alderson, 2007). Further, people's definitions of penile-vaginal intercourse are not uniform: people are more likely to consider penile-vaginal intercourse "sex" if an orgasm occurred, if the participant was the recipient (as opposed to the provider) of the sex act, and if partners had been dating for several months (Bogart et al., 2000; Cecil et al., 2002; Peterson & Muehlenhard, 2007; Trotter & Alderson, 2007).

Personal motives and values also play a role in shaping people's definitions of sex, and there are important gender differences in these motives. In one study of college students, Peterson and Muehlenhard (2007) found that men and women alike tended to label a particular sexual activity as "not quite sex" or "just barely sex" to avoid criticism by peers, to avoid acknowledging infidelity in an ongoing romantic relationship, and to avoid violating religious beliefs. Women in particular tended to resist labeling their sexual activities as sex to avoid negative self-evaluations and to maintain the image that they were virgins.

In short, people have differing definitions of what "counts" as sex. For some, this term refers exclusively to penile-vaginal penetration, whereas for others it is a much broader term that includes other sexual behaviors such as fellatio, cunnilingus, or anal intercourse. And for others still, specific behaviors are only considered to be "sex" if orgasm occurred or if the partners were involved in an ongoing romantic relationship. With such wide variation in definitions of sex, it becomes extremely difficult if not impossible to compare two individuals' responses to simple questions such as "How often do you have sex?" For example, a woman involved in a lesbian relationship and a woman involved in a heterosexual relationship will likely be using different definitions of sex to answer this question (Rothblum, 1994). In future research, it will be important for research to clearly distinguish between different types of sexual behavior undertaken in different contexts. Just as critical is the need

for careful qualitative research to investigate people's subjective understandings of their sexual experiences (Tolman, 2002; Tolman, Hirschman, & Impett, 2005).

Avoiding Risks and Approaching Pleasure

Another core conceptual issue in sexuality research in relational contexts reflects what has been—until relatively recently—a laser focus on risk avoidance and prevention. There are certainly good reasons to focus on preventing the risks associated with sex. For example, more than half of young women describe their first sexual experience as painful or disappointing (Thompson, 1990). Nearly half of all sexually active adolescents and young adults currently engage in unprotected sexual intercourse and put themselves at heightened risk for contracting sexually transmitted infections (CDC, 2006). Moving into adulthood, lack of sexual desire for a romantic partner is one of the most common presenting problems at sex therapy clinics (Rosen, 2000). Most alarming is the fact that roughly half of newlyweds and those in long-term married relationships report having experienced sexual coercion at the hands of an intimate partner (Brousseau et al., 2011; Panuzio & Dilillo, 2010). In short, the risks, dangers, and downsides of sex are incontrovertible.

Yet, to dwell on these and other negative outcomes of sex is at odds with several simple notions. Most people *want* to engage in sex, and one of the most commonly cited reasons for engaging in sex is out of powerful feelings of attraction and love for an intimate partner. Most people are moderately or highly satisfied with their sexual relationships, derive great pleasure from engaging in a broad range of sexually intimate behaviors, and can do so across the life span. Sexuality is a key factor in shaping happiness and satisfaction in relationships. For example, in a cross-national sample of individuals from 29 countries, the people who were most satisfied with their sex lives were often the happiest with their lives in general (Laumann et al., 2006). Further, those individuals who are more sexually satisfied tend to be more satisfied with their relationships (Brezsnyak & Whisman, 2004; Sprecher, 2002). Given that satisfying romantic and sexual relationships are vital components of psychological and physical health (Diamond & Huebner, 2012; Diener & Seligman, 2002; Uchino,

Cacioppo, & Kiecolt-Glaser, 1996), it is essential to understand the ways in which sexuality enables individuals and relationships to thrive.

Issues with Sampling and Measurement

In any topic of research inquiry, it is important to obtain samples of people who are representative of the population of interest. When participating in research requires answering questions about sensitive sexuality topics, obtaining representative samples is a challenging task. Even in the most extensive and well-conducted sexuality surveys in which great care is taken to select nationally representative samples, only about 70 to 80% of participants initially selected eventually participate in the study (see review by Wiederman, 2004). As such, people from certain demographic groups tend to be underrepresented in national surveys including people at both extremes of the age continuum, people of higher socioeconomic status, men, and people living in urban areas and those who work long hours (Visser, Krosnick, & Lavarakas, 2000). Those individuals who participate in studies about sexuality are often more sexually experienced, comfortable with sexual topics, and more liberal in their sexual attitudes (Wiederman, 1999).

Because sexual behavior is private and cannot be easily observed or verified, researchers tend to rely on self-report, retrospective measures of an individual's sexual thoughts, feelings, and behaviors. The use of retrospective reports in sexuality research hinges upon the assumption that participants are both motivated and able to provide accurate information about their sexuality and sexual lives. However, we know that this is not always the case, as people sometimes deliberately misrepresent the truth about themselves regarding socially sensitive topics. Indeed, research has shown that personal values and motivations influence self-reports of sexual experiences. Research in the literature on adolescent sexuality has shown that whereas boys tend to exaggerate sexual activity to measure up to perceived social standards regarding sexual desire and prowess, girls tend to minimize sexual experiences to avoid being perceived as promiscuous (Catania, 1999). Participants are also more likely to disclose experiences of sensitive sexual behaviors such as same-sex behavior when interviewed by

computer-assisted self-interviewing (CASI) than when interviewed in a face-to-face context (Copas et al., 2002), suggesting that the types of methods that researchers use to elicit information influence participants' comfort with and disclosure of sensitive information about their sexuality.

Daily experience (or "daily diary") studies provide a promising new method that reduces potential retrospective biases by having participants report on their experiences very shortly after they occur (see Reis & Gable, 2000 for a review). When used in research on sexuality, participants complete short surveys immediately after they have engaged in a sexual act or at specified intervals such as every evening before bed for several consecutive nights. These methods have the potential to provide relatively unobtrusive measures of people's sexual feelings, thoughts, and behaviors during the ebb and flow daily life. In the age of digital media, most daily diary studies are conducted electronically, such as on palm-top computers or with Web-based surveys, enabling researchers to minimize retrospective bias, ease participant burden, ensure timely completion of surveys, and reduce data entry time and errors. With the use of daily diary methods, researchers have developed new conceptual insights into such topics as how daily relationship events influence sexual desire (Birnbaum, Reis, Mikulincer, Gillath, & Orpaz, 2006; Impett, Strachman, Finkel, & Gable, 2008), how engaging in sex in pursuit of different goals shapes the quality of ongoing relationships (Cooper, Talley, Sheldon, Levitt, & Barber, 2008; Impett, Peplau, & Gable, 2005), and how mood shapes sexuality and sexual risk in adolescent romantic relationships (Fortenberry et al., 2005; Fortenberry, Tu, Harezlak, Katz, & Orr, 2002).

Some researchers have recently argued that subliminal priming methods hold great promise for studying sexuality (Gillath, Mikulincer, Birnbaum, & Shaver, 2008). By testing people's reactions to subliminal sexual stimuli, researchers can minimize the effects of social desirability, defensiveness, demand characteristics, and attempts to minimize or control one's responses. For example, in a recent study, compared to those primed with neutral pictures, individuals who were primed with erotic words and pictures showed a heightened desire to form and maintain romantic relationships (Gillath et al., 2008). Recent research on sexuality and love using neuroimaging methods is another promising

methodological tool that does not rely on self-report measures (see review by Ortigue, Patel, & Bianchi-Demicheli, 2009). For example, studies using both supraliminal (Hamann, Herman, Nolan, & Wallen, 2004) and subliminal priming methods (Gillath & Canterberry, 2011) are beginning to reveal the brain regions associated with the human sexual response. The use of these methods to study sexuality in the particular context of ongoing romantic relationships would be particularly exciting.

Finally, despite the fact that sexuality is an inherently dyadic phenomenon, the overwhelming majority of research on sexuality has treated the individual as the unit of analysis. In recent years, however, we have seen a dramatic rise in the number of scholarly articles devoted to the study of dyadic sexual behavior, due in part to advances in statistical techniques for analyzing dyadic and other forms of nested data. The use of the Actor-Partner Interdependence Model to investigate actor, partner and interaction effects (Kashy & Kenny, 2000) has grown in use and popularity in recent years, as has statistical modeling of growth and change over time (Collins & Sayer, 2000). With these advanced statistical techniques, sexuality scholars have made significant strides into understanding how attachment processes shape sexuality in the daily lives of romantic couples (Birnbaum et al., 2006; Cooper et al., 2008; Impett et al., 2008).

The Role of Gender

Because of the central relevance of gender to the study of sexuality in relational contexts, we discuss it at the outset of this chapter. The overwhelming majority of research on how gender shapes sexuality in the context of relationships has focused on understanding core male-female differences. A century ago, sex experts asserted that men and women have strikingly different sexual natures. Scientific psychologists were skeptical of this view, and beginning in the 1960s, focused on establishing similarities between men and women. For example, Masters and Johnson (1966) proposed a human sexual response cycle that was applicable to both men and women, although recent research has challenged the universality of this sexual response cycle, especially for women (Basson, 2001; Kashak & Tiefer, 2001). In recent years, empirical research comparing men's and women's sexuality has

flourished, leading psychologists to take stock of the available scientific evidence (see reviews by Peplau, 2003; Vohs, Catanese, & Baumeister, 2004). Our discussion of gender focuses on how three key gender differences—in relational focus, sexual desire, and sexual fluidity—influence sexuality in the context of ongoing romantic relationships.

Relational Focus

One of the most consistent and robust gender differences in sexuality is women's greater tendency to emphasize relationships and commitment as a context for sexuality, and men's greater tendency to separate sexuality from love and commitment. For example, men and women tend to differ in their definitions of sexual desire. In one illustrative study, more men (70%) than women (43%) believed that sexual desire was aimed at the physical act of sex (Regan & Berscheid, 1996). In contrast, more women (35%) than men (13%) cited love or emotional intimacy as the goal of sexual desire. Women's sexual fantasies are more likely to include a familiar partner, to include affection and commitment, and to describe the setting for a sexual encounter (see review by Leitenberg & Henning, 1995). In contrast, men's fantasies are more likely to involve strangers, anonymous partners, or multiple partners and to focus on specific sex acts or body parts. Compared to women, men tend to have more permissive attitudes toward casual sex (Peterson & Hyde, 2010). The term sociosexual orientation has been used to capture this intercorrelated set of sexual attitudes, preferences and behaviors (see review by Simpson, Wilson, & Winterheld, 2004). Significant gender differences are reliably found on measures of sociosexuality, both in the United States and in more than 50 other countries (Schmitt et al., 2003), although it is important to point out that the variability in sociosexuality that exists within each gender greatly exceeds that which exists between men and women (Simpson & Gangestad, 1991). In addition, recent research suggests that men tend to report falling in love more quickly than do women (Harrison & Shortall, 2011) and that men's obsessive thoughts about a romantic partner make it difficult for them to control their sexual thoughts and behaviors (Missildine, Feldstein, Punzalan, & Parsons, 2005),

suggesting that the link between relationships and sexuality is not always stronger for women than for men.

The gender difference in emphasizing the relational aspects of sexuality has also been documented in samples of lesbians and gay men (see review by Peplau, Fingerhut, & Beals, 2004). Compared to gay men, lesbians have less permissive attitudes toward casual sex and are more likely to become sexually involved with partners who were first their friends. In fact, many lesbian and bisexual women report that they were never aware of their same-sex desires until they fell in love with a particular woman (Diamond, 2003). Gay men tend to report substantially more sex partners than either lesbians or heterosexuals and score significantly higher than other groups on measures of sociosexuality (Bailey, Gaulin, Agyei, & Gladue, 1994). Gay men in committed relationships are more likely than any other group to report that they have sex with partners outside their primary relationship and have "open" sexual arrangements (Blumstein & Schwartz, 1983; Peplau et al., 2004).

Several explanations have been posited for this gender difference in relational focus (see review by Diamond, 2004). One idea concerns the fact that women are more likely than men to have their first experiences of sexual arousal in the context of heterosexual dating relationships, rather than in the context of solitary masturbation. Another explanation is that women have historically been socialized to restrict their feelings of sexual desire to the context of intimate relationships, whereas men have had more social license to engage in casual sex. Third, biological factors may also contribute to this difference, and in particular, neurochemicals that mediate bonding processes in mammals including oxytocin, vasopressin, and dopamine (Diamond, 2004; Hiller, 2004).

In a review of gender differences in sexuality, Conley and colleagues have suggested that differences in men and women's attitudes and willingness to engage in casual sex are explained by perceptions of a casual partner's sexual prowess and anticipation of being stigmatized for engaging in a casual sex encounter (Conley, Moors, Matsick, Ziegler, & Valentine, 2011). In a classic study by Clark and Hatfield (1989), men and women were propositioned for casual sex by confederates of the other

sex. None of the women accepted the offer, whereas 70% of men agreed to casual sex with the female stranger who approached them. In a recent replication of this study, Conley (2011) found that when the proposed casual sex partner was someone attractive, known to the person, or perceived to have high sexual capabilities, a different pattern emerged. Gender differences in acceptance of a casual sex offer evaporated when participants considered offers from very attractive or very unattractive famous people. Women were also as likely as men to accept a causal sex offer if they believed that the person was a "great lover" and would provide them with a pleasurable sexual experience. Finally, women who anticipated being negatively labeled (e.g., called a "slut") were less likely to have accepted both a recent *real life* casual sex offer and a hypothetical casual sex offer (Conley, Ziegler, & Moors, 2011).

Sexual Desire

Sexual desire has been defined as the drive or motivation to seek out sexual objects or to engage in sexual activities (Diamond, 2004). In a comprehensive review of empirical research on the topic, Baumeister, Catanese, and Vohs (2001) concluded that—across a variety of markers or indicators of sexual desire—men tend to show more interest in sex than do women. For example, compared to women, men think about sex more often (Laumann et al., 1994) and report more frequent sex fantasies and feelings of desire (Leitenberg & Henning, 1995). Across the lifespan, men rate the strength of their own sex drive higher than do their female age mates. Men and women also differ in their preferred frequency of sex. When dating and marriage partners disagree about sexual frequency, men usually want to have sex more often than their female partners (McCabe, 1987; Smith et al., 2011). In heterosexual couples, actual sexual frequency may reflect a compromise in the desires of the male and female partner. In gay and lesbian relationships, where sexual frequency is decided by partners of the same gender, lesbians report having sex less often than gay men or heterosexuals (Blumstein & Schwartz, 1983).

We should advance a word of caution in interpreting evidence of men's greater sexual desire. The gender difference in desire is particularly strong when considering men's and women's desires for

solitary sexual activity, such as masturbation, or desire for sex with new and unfamiliar sexual partners (Oliver & Hyde, 1993). Although men have more sexual thoughts than women, they also think about food and sleep more than women, suggesting that men may have more thoughts about personal needs in general than do women (Fisher, Moore, & Pittenger, 2011). The gender difference in desire is much smaller in the beginning stages of relationships in which intimacy levels are rapidly increasing (Baumeister & Bratlavsky, 1999). Within the context of ongoing, intimate relationships, it is more accurate to describe women's sexual desire as more variable than men's (Leiblum, 2002). In addition, Wallen (1995) has suggested that it is important to distinguish between having an intrinsic interest to pursue sex (proceptivity) and the capacity to become sexually aroused in response to situational or relationship cues (receptivity). Women's desire can be just as strong as men's when they are appropriately aroused (Tolman & Diamond, 2001) but may be more vulnerable to disruptions by such factors as hormonal fluctuations and relationship issues and concerns (Impett, et al., 2008; Leiblum, 2002). Gender differences in sexual desire in the context of ongoing romantic relationships still tend to exist, but they are relatively small in magnitude (e.g., Davies, Katz, & Jackson, 1999; Holmberg & Blair, 2009) or may be hard to detect given the higher relative variability in women's desire. Finally, as with all male-female comparisons, there are many exceptions to this general pattern as research "highly sexual" women has revealed (Blumberg, 2003; Wentland, Herold, Desmarais, & Milhausen, 2009).

Several explanations exist for the empirically documented gender differences in sexual desire. One explanation is primarily biological in nature and suggests that gender differences may be due to differences in levels of circulating androgens and estrogens (Bancroft, 1978; Udry, 1988). Indeed, evidence from the animal and human literatures extensively reviewed by Baumeister et al. (2001) suggest that whereas androgens are responsible for the active initiation of sexual activity, estrogens are responsible for the acceptance of sexual activity. Another explanation for the gender difference focuses on the powerful social forces that restrict, limit, and control female sexual desire and cast girls and women in the role of sexual gatekeepers (Fine & McClelland, 2006). These messages are especially

prominent in adolescence, a time when girls receive powerful messages that they do not want or need sexual activity as much as men and that sex is only appropriate in the context of committed or monogamous relationships (Tolman, 2006). These messages limit adolescent girls' abilities to be aware of and to detect their own feelings of sexual arousal and may be responsible for the fact that many women report discrepancies between their degree of physiological arousal and their subjective feelings of arousal (Chivers, Rieger, Latty, & Bailey, 2005).

Regardless of their source, it is important to consider the implications of possible gender differences in desire for the successful maintenance of romantic relationships. One possible index of desire that may be especially important to consider is the desired frequency of sex. Research by McCabe (1987) demonstrated that across relationships of differing duration, whereas women reported that they were getting as much sexual intercourse as they wanted, men consistently reported wanting more sexual intercourse than they were currently getting. In a study of German university students in heterosexual relationships, Klusmann (2000) found that men were more likely than women to complain that their desired frequency of sex outpaced their actual sexual frequency, and this discrepancy grew larger with increased relationship length. In relationships characterized by overall differences in desire between the male and female partners, a man may believe that he would be better off with a woman with a higher sex drive, and conversely, a woman may be believe that she is inadequate or unable to fulfill her partner's sexual needs. Both of these perceptions may present considerable challenges for relationships, especially as couples try to maintain their relationships over the long haul (see review by Vohs, Catanese, & Baumeister, 2004). In heterosexual relationships in which men desire sex more frequently than their female partners, men tend to report lower sexual and relationship satisfaction (Smith et al., 2011). Further, some studies have shown that satisfaction with one's sex life in the context of relationships tends to be more important for men than for women. In a longitudinal study of romantic couples, Sprecher (2002) found that sexual satisfaction decreased over time for both men and women, but this effect was stronger for men. Further, sexual dissatisfaction tends to predict relationship

dissolution more strongly for men than women in samples of dating couples (Sprecher, 2002) and married couples (Dzara, 2010), suggesting that couples may be more likely to break-up or divorce when men are not happy with their sex lives.

Sexual Fluidity

Sexual fluidity (also called "erotic plasticity") represents the extent to which an individual's sexual beliefs and behaviors can be altered by cultural, social, and situational factors. The original Kinsey et al. (1948, 1953) reports and Masters and Johnson's (1966) research on the human sexual response cycle suggested that women's sexual activity fluctuates more over time than does men's. In a comprehensive review of research on the malleability of sexuality, Baumeister (2000) showed that women tend to exhibit more change in sexuality across time than do men. For example, women change and adjust their sexual preferences more so than men over the course of a marriage (Ard, 1977). In her recent book, Diamond (2008) reviewed evidence suggesting that women exhibit greater changes in sexual orientation over time than do men. Baumeister (2000) also argued that social and cultural variables such as religion and education tend to have a stronger influence on women's than men's sexuality. In addition, women demonstrate a lower consistency between their sexual attitudes and their behaviors than do men. One example of attitude-behavior consistency that differs quite markedly for men and women concerns patterns of "sexual compliance" or "consensual unwanted sex" (Impett & Peplau, 2003; O'Sullivan & Allgeier, 1998). These terms refer to situations in which one partner consents to sexual activity that he or she does not personally desire. In ongoing romantic relationships, women are roughly twice as likely as men to report engaging in undesired sex (see review by Impett & Peplau, 2003), and women in longer-term relationships tend to be more sexually compliant than women in short-term relationships (Carvalheira, Brotto, & Leal, 2010). These results suggest that women may be relatively more likely than men to resolve a dilemma about undesired sex by taking their partner's welfare into account or by placing the relationship above their own sexual needs (Impett & Peplau, 2002).

The greater malleability of women's sexuality compared to the consistency and stability of men's sexuality over time has important implications for close relationships. Romantic relationships often involve a high degree of interdependence between partners, such that changes in one person's interests and preferences inevitably influence his or her partner (Rusbult & Van Lange, 2008). To the extent that women are more likely to change their sexual interests and preferences over time, these changes will influence her partner and the relationship. For example, in newly developing relationships, men and women tend to start out with high levels of desire. While men tend to remain relatively high in sexual desire, women often report waning desire over the course of time in relationships (Baumeister & Bratlavsky, 1999). Thus, in the context of long-term intimate partnerships, men and women may find themselves in situations in which their levels of desire show decreasing correspondence—situations that may present challenges for the relationship.

In sum, research points to three core gender differences in sexuality that have important implications for romantic relationships. Although the magnitude of these gender differences may be smaller in the context of ongoing relationships, in general, women tend to place greater emphasis on relationships as an important context for sexual activity, report lower and more variable interest in or drive for sex, and demonstrate more fluidity in sexual interests and preferences over time than do men. An important direction for future research will be to focus on the implications of these differences for the quality and stability of intimate relationships. Qualitative methods are needed to understand how men and women experience their sexuality, and longitudinal methods would be ideal to investigate how gender shapes sexuality at different points in relationships and at different stages of the lifespan.

Sexual Attraction

Before relationships are even formed and as they are initially developing, partners assess each other's romantic and sexual potential. In the 1960s and 1970s, research on close relationships focused on understanding initial romantic attraction. Much of this work was based on evolutionary perspectives and emphasized gender differences in partner preferences and mate selection. During the 1980s, with

the growing influence of attachment theory, researchers shifted their focus from studying initial romantic attraction to studying relationship dynamics in ongoing romantic bonds. Yet, in the past decade with the advent of speed dating, we have seen renewed focus on romantic attraction during real-life dating situations (Finkel et al., 2007). In this section, we review gender differences and similarities in partner preferences, consider individual differences in mating strategies, and discuss the disconnect between expressed partner preferences and actual mate selection.

Mate Preferences

Research on mate selection criteria, or the traits that people report desiring in a romantic partner, has largely focused on gender differences and suggests that men and women value different criteria in potential mates. Across 37 cultures, when asked to rank the qualities that are desired in a mate, dependability, stability, education, and intelligence are ranked higher by women than men for a long-term partner, whereas physical appearance, health, and desire for a home and children are ranked higher by men than by women (Shackelford et al, 2005). These gender differences in preferences for a long-term partner are present across multiple generations. For example, in surveys of mate preferences conducted between 1939 and 1996, men consistently placed a higher premium on physical attractiveness while women put greater importance on the financial stability of romantic partners (Buss et al., 2001). Other studies on partner preferences have attempted to distinguish between necessary and 'luxury' traits by giving people a "mate budget" and asking them to indicate which traits are necessities in a romantic partner. Men classify physical attractiveness as a necessity in a long-term partner whereas women treat it as a luxury. The reverse pattern emerges for status and resources, with women viewing these qualities as necessities and men viewing a partner's status and resources as luxuries (Li et al., 2002).

While the mate selection literature emphasizes gender differences in partner preferences that persist across cohorts, cultures, and types of research methods, there are also important gender similarities. Although men ranked physical attractiveness higher than did women in Buss et al.'s (2001)

cross-cohort study, it was nonetheless ranked only 7th out of 18 possible characteristics. Similarly, women ranked financial stability as more important than did men, but it was only 11th on women's lists. In fact, for both men and women, the top four traits preferred in a long-term partner were dependability, emotional stability, pleasing disposition, and mutual attraction and love. With each successive cohort, physical attractiveness and financial prospects became more important for both sexes, with men in more recent years expressing a steeper rise in the importance of partner earning potential. Further, both men and women indicated that kindness and intelligence were necessities for a long-term partner (Li et al., 2002).

Gender differences are further attenuated when short-term partner preferences are considered. Both men and women name physical attraction as their top reason for considering casual sex and inquire first about physical attractiveness when screening for a one-night stand partner (Li & Kendrick, 2006). Several differences in mate preferences within gender have also been identified. Women consistently report valuing kindness and high social status in long-term partners. However, when considering what they desire in short-term partners, some women prioritize long-term qualities such as social status, whereas others emphasize physical attractiveness at the expense of kindness and social status. A similar pattern emerged for men. For some men, short-term preferences diverged only slightly from long-term preferences, whereas for others, physical attractiveness was heavily prioritized in short-term relationships at the expense of kindness, social status, and creativity. As such, individual variation in mate selection criteria within gender is important to consider.

Individual differences in partner preferences and, by extension, mating strategies, are at least partially explained by differences in sociosexuality, broadly defined as the extent to which a person desires uncommitted sexual activity (see review by Simpson et al., 2004). Individuals scoring high on measures of sociosexuality are more comfortable having sex outside of a committed relationship, prioritize physical attractiveness in romantic partners, and tend to be involved in relationships characterized by the rapid development of sexual intimacy and low levels of investment, love, and

commitment. In contrast, individuals scoring low in sociosexuality tend to be more committed to maintaining their relationships, believe that love is necessary for sex, and prefer partners who place a premium on intimacy and commitment. Schmitt (2005) examined sociosexuality scores in men and women from 48 countries, and found that men scored substantially higher than women. More recent research that has considered multiple dimensions of sociosexuality—including attitudes, behavior, and desire—suggests that the desire dimension is driving the gender differences in sociosexuality, as men generally report greater desire for uncommitted sexuality than women, and women's desire scores are more consistent with their behavior than are men's (Penke & Asendorpf, 2008). For example, women who have positive attitudes toward uncommitted sexuality and a desire for sexual variety report a high number of prior relationships, sex partners, and infidelities than men with similar attitudes and desires (Penke & Asendorpf, 2008). Consistent with this research, Penderson et al. (2011) found that men and women do not differ in preferred number of sex partners, suggesting that individual differences may be more important than gender in considering partner preferences and mating strategies.

Mate Selection

In the past decade, research on interpersonal attraction has shifted in focus from self-reported preferences for hypothetical partners to real-life dating outcomes, allowing researchers to consider whether reported partner preferences translate into actual mate choices. Consistent with research on partner preferences, gender differences in romantic interest have been observed in online dating contexts. Men in high-income brackets enjoy greater online dating success, as measured by the number of first-contact emails received, while the effect of income on email receipt is only moderate for women (Hitsch et al., 2007). In the same way, women who include a photo in their online profile receive more than twice as many emails as women who do not post a photo and describe themselves as average in physical attractiveness. This effect is less pronounced for men (Hitsch et al., 2007).

Eastwick and colleagues (2011) examined whether gender differences in reported partner preferences also exist in face-to-face interactions. In a sample of undergraduates, participants reported

gender-typical partner preferences, and these preferences predicted romantic interest following the assessment of a potential partner's profile. However, when participants actually met the subject of the profile, stated preferences failed to predict romantic interest. It appears that interest in hypothetical targets (e.g., viewed in online dating profiles or personal ads) is consistent with partner preferences, but in a face-to-face meeting, preferred qualities are reinterpreted to fit the traits displayed by the potential partner. For example, poor financial prospects can be reinterpreted as the product of a 'lazy, unmotivated lifestyle' or the lot of a 'struggling but driven artist,' depending on the context. The valence ascribed to target traits during face-to-face interactions dictates romantic attraction and, as a result, mate choice decisions following live interactions can deviate markedly from initial mate preferences.

Studies of romantic attraction in speed dating contexts have cast further doubt on the predictive validity of partner preferences. Eastwick and Finkel (2008) examined the mate preferences of undergraduates prior to a speed dating session and followed daters for 32 days. The data revealed no gender differences in partner preferences and no association between stated preferences and dating choices. For speed daters of both sexes, the physical attractiveness of a potential partner had the greatest bearing on romantic interest. Further, when women express an interest in a partner's earning potential or when men express an interest in good looks during a speed date, interaction troubles can follow (Korobov, 2011). By contrast, the expression of partner preferences that are resistant to traditional gender norms is more likely to result in mutual affiliation (Korobov, 2011). Speed dating studies provide a unique opportunity to compare partner preferences and actual mate choices while retaining both laboratory-like control and ecological validity. However, it is possible that this approach primes short-term mating strategies, where gender differences are muted to begin with, instead of providing evidence that both men and women place a premium on physical attractiveness for long-term partners (Eastwick & Finkel, 2008).

The question of whether speed dating choices merely reflect casual-sex partner selections has been addressed. In a sample of adults using commercial dating services who reported a greater interest in securing a long-term than a short-term partner, Asendorpf et al. (2011) found that physical attraction was the main predictor of romantic interest for both men and women, consistent with the findings of Eastwick and Finkel (2008). Kurzban and Weeden (2005, 2007) compared reported partner preferences with actual mate choices in community samples of adults. While men tended to specify a preferred body type and women were more likely to list cut-off points for education and income, these stated preferences deviated from actual mate choices. For both men and women, romantic interest in speed dating partners was determined almost exclusively by physically observable attributes such as attractiveness, body mass index, height, and age.

In contrast to evolutionary models of mate selection, the speed dating literature suggests that men and women are more similar than different in the traits that influence their attraction to a romantic partner. While gender differences in partner preferences have been found across cultures, stated preferences do not appear to dictate actual romantic interest. Instead, the willingness to pursue a relationship with an individual of the other sex is highly dependent on that individual's physical attractiveness. Consistent with research that has demonstrated an association between sexual priming and relationship goal pursuit (Gillath et al., 2008), the attraction literature points to sexual attraction as the overarching factor that motivates people to pursue intimacy in a relationship context.

Although speed dating provides a unique window into real-life attraction, its generalizability has been contested due to the fast and formalized nature of speed dating events, as well as an exclusive focus on heterosexual participants. Future research should examine the function of partner preferences in gay male and lesbian speed date selection, as well as in relationships initiated outside of a speed dating context. Finally, longitudinal data is needed to determine the role of ideal partner preferences in mate retention, and to clarify whether the same sexually-charged variables that predict initial attraction also predict the transition from casual to committed mating and relating.

Attachment

Couples who stay together beyond the initial attraction phase will begin to develop an attachment bond, and attachment-related differences have implications for the maintenance of relationships. Although attachment and sexuality are distinct behavioral systems that evolved for different purposes and can be experienced separately (Diamond, 2003, 2004), long-term romantic partners typically function simultaneously as sexual partners and attachment figures (see reviews by Birnbaum, 2010; Gillath & Schachner, 2006). More than two decades ago, Hazan and Shaver (1987) argued that romantic relationships are made up of three distinct but related behavioral systems: sex, caregiving and attachment. Since this time, researchers have devoted considerable attention to understanding how these systems are related, as well as how individual differences in attachment predict differences in the way that people experience romantic and sexual relationships. In this section, we discuss the extension of attachment theory to romantic relationships, review the literature linking attachment and sexuality, and discuss how attachment shapes sexual motivation.

Attachment in Romantic Relationships

Since the 1970s, attachment theory has been a leading perspective for understanding the bond between a child and caregiver (e.g., Bowlby, 1979), and in the 1980s, this perspective was applied to romantic pair bonds (Hazan & Shaver, 1987). The same behaviors that are characteristic of infant-caregiver attachment—seeking and maintaining physical proximity, seeking comfort when needed, experiencing distress upon separation, and viewing the attachment figure as a secure base—are directed toward a mate in adulthood (Fraley & Davis, 1997; Hazan & Zeifman, 1994). There are important differences, however, between the parent-child bond and the bond between romantic partners. Most notably, adult attachments involve *reciprocal* caregiving, as well as sexual attraction and mating (Shaver, Hazan, & Bradshaw, 1988). As such, romantic partnerships reflect an integration of the attachment, caregiving and sexual systems.

Individual differences in attachment are best conceptualized along the two continuous dimensions of attachment anxiety and avoidance. An individual's position on the anxiety dimension reflects the extent to which he or she desires closeness with romantic partners, but has heightened fears of rejection and abandonment. An individual's position on the avoidance dimension reflects the extent to which he or she feels uncomfortable with closeness in romantic relationships and strives for independence and emotional distance from partners (Brennan, Clark, & Shaver, 1998; Mikulincer & Shaver, 2007). Low scores on both the anxiety and avoidance dimensions reflect attachment security. An extensive body of research has shown that attachment anxiety and avoidance reliably predict differences in the way people experience romantic and sexual relationships (see review by Birnbaum, 2010). The bulk of the research on attachment in relationships has involved heterosexual samples, although similar prevalence rates of anxiety and avoidance and associations with relational and sexual outcomes have been identified among gay and lesbian individuals (see review by Feeney & Noller, 2004). One notable difference is that the attachment security of gays and lesbians is unrelated to their early relationships with parents, but is instead predicted by self and peer acceptance, suggesting that, for gay and lesbian individuals, attachment security may be more strongly influenced by peer relationships than early parenting.

Attachment and Sexuality in Relationships

Individual differences in adult romantic attachment influence how individuals experience and make meaning of their romantic and sexual relationships. Securely attached individuals generally have committed, stable, and satisfying romantic relationships and enjoy sex in the context of relationships (Birnbaum et al., 2006; Simpson, 1990). Highly anxious individuals, on the other hand, use sex to meet their needs for emotional intimacy and reassurance, and are often preoccupied with relationship issues and overly concerned with their partner's sexual needs (Davis, Shaver, & Vernon, 2004; Schachner & Shaver, 2004). Although anxious individuals report greater sexual desire and are more likely to maintain passion over time (Davis et al., 2004), they report lower levels of sexual and marital satisfaction (Butzer

& Campbell, 2008; Little, McNulty, & Russell, 2010). Interestingly, the romantic partners of anxiously attached individuals do not report lower levels of sexual satisfaction, a finding which may reflect the tendency for anxiously attached individuals to defer to a romantic partner's sexual needs (Butzer & Campbell, 2008). Higher avoidance is also associated with lower levels of sexual satisfaction, reflecting avoidant individuals' greater discomfort with intimacy and closeness. Partners of more avoidant individuals are also less sexually satisfied, and their decreased sexual satisfaction detracts from feelings of relationship satisfaction (Butzer & Campbell, 2008).

The attachment and sexual systems not only influence one another, but also contribute to the quality and stability of romantic relationships. For example, the influence that sexual experiences have on relationship satisfaction differs based on an individual's attachment style. In a sample of married couples, the link between sexual and relationship satisfaction was stronger for people who were relatively more anxiously attached, as well as for people who had anxiously attached partners (Butzer & Campbell, 2008). On days when anxiously attached individuals had more negative sexual experiences, their relationship satisfaction decreased, and on days with more positive sexual experiences, their relationship satisfaction increased. Conversely, the relationship satisfaction of avoidantly attached individuals was less influenced by daily sexual experiences. Although avoidant individuals are not as impacted by negative experiences, they are also less likely to reap the benefits of satisfying sexual experiences (Birnbaum et al., 2006). These findings highlight the tendency of anxiously attached individuals to use sex as a barometer for relationship satisfaction, and the tendency of avoidant individuals to distance love from sex. Finally, this growing area of research on attachment and sexuality also suggests that the frequency and quality of sexual interactions in a relationship may buffer against the negative impact of both attachment anxiety and avoidance on relationship quality. In a daily experience study, on days when partners reported more satisfying sex, anxiously attached individuals did not experience declines in their marital satisfaction, and among couples who reported more frequent sex, avoidance was not associated with lower marital satisfaction (Little et al., 2010).

Sexual fantasies can also provide a window into the interplay between attachment and sexuality in romantic relationships. In a study by Birnbaum (2007), people who scored high on attachment anxiety reported a greater number of sexual fantasies than those low in anxiety, and their fantasies were more likely to reflect desires for intimacy and representations of a partner as warm and affectionate. In contrast, highly avoidant people were more likely to report sexual fantasies that involve distance and alienation from a romantic partner. Further, on days when negative relational events occurred, attachment-related concerns were exacerbated in the fantasies of both anxious and avoidant partners, with anxious individuals fantasizing about being helpless and avoidantly attached individuals fantasizing about feeling self-sufficient and independent (Birnbaum, Mikulincer, & Gillath, 2011).

Researchers have demonstrated the utility of dyadic approaches to studying attachment and sexuality in relationships. For example, in one study, when husbands were high in attachment anxiety or avoidance, their wives reported lower levels of sexual desire and sexual communication five months later (Feener & Noller, 2004). Brassard, Shaver and Lussier (2007) found that avoidant men and women reported less frequent sex when their partner was more anxious, a finding that is likely due to their partner's heightened desire for intimacy and their own need to avoid closeness in relationships. Having an anxious partner who constantly pursues intimacy may also make avoidant partners distancing attempts more pronounced. Further, some degree of matching between partners on attachment styles may be important in relationships. When both partners are highly anxious, sexual frequency tends to be high, but an anxious man partnered with a less anxious woman often results in less frequent sex (Brassard et al., 2007). The neediness and desire for closeness that is characteristic of anxious attachment seems to be better received by a more anxious, compared to a less anxious partner.

If sex and attachment are interconnected, priming one system should motivate a person toward goals of the other system. A sexual prime should compel individuals to initiate a sexual relationship as well as increase feelings of commitment and intentions to maintain the relationship. In their review, Gillath and Schachner (2006) provide evidence for the interconnection between the attachment and

sexual systems. When the sexual system is activated, people are motivated not only toward sexual behavior, but toward strengthening their current relationship; conversely, when the attachment system is activated, people are more interested in pursuing long-term, committed relationships than they are in pursuing short-term, casual relationships. Attachment avoidance, whether dispositional or primed, is associated with a desire for shorter-term mating strategies, whereas attachment anxiety and security are associated with longer-term mating strategies. In addition, when anxiously attached individuals are primed with security, they have a reduced desire for long-term partnerships, suggesting that attachment-related primes may remind anxious individuals of negative relational thoughts and experiences.

Attachment and Sexual Motives

In romantic relationships, partners may use sex to meet specific attachment-related needs, and therefore, individual differences in anxiety and avoidance are associated with distinct motivations for engaging in sexual activity. Anxiously attached individuals tend to engage in sex to please a romantic partner, to express love, and to achieve emotional intimacy, and are less likely to engage in sex in pursuit of physical pleasure (Davis et al., 2003, 2004; Impett, Gordon, & Strachman, 2008). Anxiously attached individuals are more likely to engage in 'sexting'—sending sexually suggestive or propositioning text messages to their romantic partners—a behavior that is motivated by a desire to maintain their partner's interest and meet their needs for reassurance by eliciting a response from their partner (Weisskirch & Delevi, 2011). In contrast, due to fears of and discomfort with intimacy, avoidant individuals' sexual motives tend to focus on detaching sex and love. Avoidant attachment is associated with having sex to avoid negative relationship interactions and is negatively associated with having sex to express love for a partner (Impett et al., 2008). Instead, avoidant people are more likely to have sex for self-enhancing reasons such as to pursue their own sexual pleasure (e.g., Schachner & Shaver, 2006). Attachment avoidance is also associated with a greater likelihood of engaging in extradyadic sex to reduce discomfort with a primary partner's desire for intimacy (Beaulieu-Pelletier, Philippe, Lecours, & Couture, 2011).

Sexual motives are also influenced by a partner's attachment style. Since avoidant individuals are relatively less likely to respond to a romantic partner's needs for intimacy, men and women with avoidant partners are more likely to engage in sex to pursue their own physical pleasure (Impett et al., 2008). Research also suggests that there are gender differences in the ways that men and women respond to an anxiously attached partner. Whereas women with more anxious partners are more likely to have sex to please their partners, men with more anxious partners are less likely to do so (Impett et al., 2008). In general, women are more likely than men to have sex with their partners when they have little or no desire (Impett & Peplau, 2003), and may feel more obligated to meet their partner's needs, particularly when they are high in attachment anxiety (Impett & Peplau, 2002). Men's intimacy needs may be satiated by having an anxious partner and, therefore, men may be less likely to comply with an anxious partner's sexual wishes or may be frustrated with their partner's constant demands for closeness (Impett et al., 2008)

Relationship threats, such as rejection, uncertainty about a partner's love, and concerns that another person might be attempting to attract one's partner, can activate attachment-related goals. In one recent study, after thinking about a relationship threat (e.g., a partner considering a break up) versus a non-relationship threat (e.g., failing an exam), anxiously attached individuals reported fewer sexual motives focused on the pursuit of pleasure (Birnbaum, Weisberg, & Simpson, 2011). This finding suggests that relational threats may trigger anxious individuals to focus even less on their own sexual pleasure. In a study of individuals who reported on the content of their sexual fantasies following a relational threat, highly anxious individuals reported a heightened desire to satisfy a romantic partner's sexual needs, a strategy that was likely enacted to maintain the relationship (Birnbaum, Svitelman, Bar-Shalom, & Porat, 2008). In contrast, highly avoidant people further withdrew from their partners after a relationship threat and reported lower desires to engage in sex (Birnbaum et al., 2011). Interestingly, avoidant women, when threatened, were more likely to represent themselves as pleasing and affectionate towards their partner in their sexual fantasies, suggesting that in

some situations women's greater relational orientation may supersede the impact of attachment (Birnbaum et al., 2008).

In sum, a growing body of research has shown important ways in which attachment and sexuality are linked in romantic relationships. More longitudinal research is needed to understand how attachment influences relational and sexual experiences over the course of romantic partnerships, and further research is needed on how partners' attachment styles interact to influence relational and sexual outcomes.

Sexual Desire

Sexual desire, defined as a motivational state that leads an individual to seek out opportunities to engage in sexual activities (Diamond, 2003, 2004; Gonzaga, Turner, Keltner, Campos, & Altemus, 2006), is another critical factor to consider in the maintenance of romantic relationships. Research on sexual desire suggests that it involves both physical and cognitive aspects. Both men and women have reported gauging their levels of sexual desire via genital arousal (Beck, Bozman & Qualtrough, 1991), and some women have discussed desire as being sexual interest that is "more thoughtful" (Graham, Sanders, Milhausen, & McBride, 2004) and not necessarily indicative of a physical readiness for sex (Wood, Mansfield, & Koch, 2007). In this section, we consider how sexual desire changes over the course of a relationship, discuss the implications of partners having discrepancies in sexual desire, and review possible factors that may buffer against declines in sexual desire in relationships over time.

Sexual Desire over the Course of a Relationship

Sexual desire has important implications for relationship maintenance. People who report higher levels of desire have fewer thoughts about leaving their current relationship, and are less likely to be unfaithful to their partner or feel attracted to other people (Regan, 2000). Despite the associations between desire and relationship stability, there also seems to be a normative decline in desire over the course of a relationship with sexual desire peaking in the early stages of a relationship and then decreasing over time (Sprecher & Regan, 1998). This decline occurs even if couples do not have

children (Call, Sprecher, & Schwartz, 1995), and even highly satisfied couples may experience lower levels of desire over the course of their relationship. Relationship duration has been shown to be a stronger predictor of sexual frequency than age (Johnson, Wadsworth, Welling & Fields, 1994), with one exemplary finding being that people who remarry later in life often report increased sexual frequency (Call et al., 1995). Researchers suggest that declines in desire can be attributed to habituation to a romantic partner and theorize that in long-term relationships, sex may be less rewarding than earlier in the relationship and therefore lose some of its importance (Call et al., 1995; Liu, 2000).

Whereas feelings of intimacy and closeness tend to increase over the course of a relationship, passion often declines. According to Baumeister and Bratlavsky (1999), passion is a function of changes in intimacy, meaning that long-term couples are at risk of declines in desire once the level of intimacy in a relationship is stable, even when levels of intimacy are high. In a recent empirical demonstration of this theory, in a 21-day diary study of established couples, daily increases in intimacy were associated with higher levels of passion, a greater probability of having sex, and greater sexual satisfaction (Rubin & Campbell, in press). In depth interviews with 22 women who reported high marital satisfaction but low sexual desire for their husbands revealed that the comfort and stability of long-term relationships contributes to the feeling that sex is less exciting. Other factors, such as the over-familiarity of a long-term partner and their sexual repertoire and the de-sexualization of roles that often occurs in long-term relationships, such as shared household responsibilities and co-parenting, also contribute to decreased desire (Simms & Meana, 2010). Changes in levels of desire in an established relationship may also be due to changes in one or both partner's sexual functioning. Not surprisingly, when one partner experiences sexual difficulties, both partners report declines in sexual desire. Low levels of desire in women often co-occur with other sexual problems and with a partner's sexual dysfunction (McCabe & Goldhammer, 2012).

Discrepancies between actual and desired frequency of engaging in sex shape the quality of romantic relationships, and this association differs over the course of a relationship. In a study of 8,096

heterosexual dating couples, higher sexual desire, especially as reported by the female partner, was associated with increased relationship satisfaction for both partners, even when actual sexual frequency was lower than desired frequency (Willoughby & Vitas, 2011). However, in longer relationships, higher discrepancies between desired and actual frequency of sexual activity led male partners to feel less satisfied with their relationship and female partners to question the stability of their relationship. Therefore, higher desire than frequency may serve as motivator for individuals to invest in a new relationship, but may lead to negative consequences in more established relationships.

Family life stage and transition to parenthood impact desire and sexual frequency in relationships. In a study using data from the National Survey of Families and Households, sexual frequency decreased during pregnancy and the initial postpartum period, especially when a couple was also parenting other children under the age of four (Call et al., 1995). The general pattern of desire during the transition to parenthood that emerges in the literature is that women's desire declines over the course of pregnancy, especially during the third trimester, and remains low for the first few months post-partum (see review by Haugen, Schmutzer, & Wenzel, 2004). Men may experience similar declines over the course of their partner's pregnancy, although these declines are relatively less dramatic. Conversely, some women report increases in desire at various stages in their pregnancy, and many women may retain an interest in noncoital sexual activities, even if they desire less frequent intercourse. In a sample of 128 Iranian first-time parents, women's appearance concerns and fatigue were associated with lower levels of sexual desire, but high perceived intimacy among couples buffered against declines in marital satisfaction during the post-partum period (Nehzad & Goodarzi, 2011).

Recent qualitative research suggests that over the course of a relationship, sexual desire becomes an increasingly *partnered* experience. Women in long-term relationships discuss their desire as being more responsive to their partner's initiation than spontaneous (Goldhammer & McCabe, 2011), and many couples equate the quality of their sexual relationship with the quality of their relationship as a whole (Elliot & Umberson, 2008). Some women, however, discuss declining desire despite high levels

of relational satisfaction (Simms & Means, 2010). Further qualitative work in this area could offer insights into how couples manage desire discrepancies in their relationships and how desire and sexual motivation change over the course of a relationship. Since sexual desire and sexual frequency are not synonymous, the sexual motives of a partner with lower desire could have important implications for relationship quality. Longitudinal studies that consider the ebb and flow of desire over the course of a relationship are also warranted and could identify additional factors that contribute to declines over time.

Desire Discrepancies

In the context of a romantic relationship, perceptions of sexual compatibility, including the concordance between partners' levels of desire, have implications for relationship quality (Hurlbert, Apt, Hurlbert, & Pierce, 2000). Instead of labeling partners as "high" or "low" in sexual desire, some researchers consider discrepancies in desire between partners. In a study of 36 lesbian and 33 heterosexual women, the majority of both the lesbian (66%) and heterosexual (75%) participants reported desire discrepancies in the their relationships (Matthews, Tartaro, & Hughes, 2003). Further, although men generally report higher sexual desire than women (see review by Baumeister et al., 2001), women are not always the lower desire partners in heterosexual couples. In fact, Davies et al. (1999) found that men and women were relatively equally split on indicating which partner reported higher sexual desire in a sample of heterosexual couples.

In one study of desire discrepancies in dating couples, Mark and Murray (2011) found that larger desire differences between partners were associated with lower levels of sexual satisfaction for women (but not men) after controlling for relationship satisfaction, and with lower relationship satisfaction for men (but not women) after controlling for sexual satisfaction. Another study demonstrated that both perceived and actual desire discrepancies impacted women's relationship satisfaction; for men, perceived discrepancies impacted relationship satisfaction, and this association was fully mediated by sexual satisfaction (Davies et al., 1999). Davies and colleagues also investigated

whether these effects are due to similarity versus dissimilarity in partners' levels of desire or if there is a specific pattern that is important in terms of which partner is higher or lower in desire. Couples were categorized into three groups: women with lower desire than their partner, women with similar desire to their partner, and women with higher desire than their partner. Women with lower desire were significantly less satisfied than women in the other two groups, suggesting that the nature of the desire discrepancy is important for relational outcomes.

In a sample of 1072 women in same-sex relationships, Bridges and Horne (2007) made an important distinction between problematic and non-problematic desire discrepancies. Women who reported that a desire discrepancy with their partner was problematic in their relationship had sex less frequently and felt less sexually satisfied than women who reported a non-problematic desire discrepancy or no discrepancy with their partner. Therefore, a desire discrepancy may not necessarily problematic in and of itself, but only to the extent the members of a couples view it as problematic. Future research is needed to determine the extent to which desire discrepancies are perceived as problematic in heterosexual and gay male couples as well.

Buffering against Declines in Sexual Desire

While, on average, sexual desire tends to decline over time in long-term partnerships, research evidence also suggests that sexual desire does not inevitably wane over the course of a relationship. From their review of the literature, Acevedo and Aron (2009) concluded that while the obsessive element of passionate love decreases over time, the romantic elements—including strong sexual desire—can be maintained in long-term relationships. Couples in long-term marriages report that sexual activity remains an important component of the relationship, albeit not as prominent as during the earlier stages of the relationship (Hinchliff & Gott, 2004).

Researchers have begun to investigate factors that promote the maintenance of desire in relationships. Individuals who engage in sex for approach motives such as to pursue their own pleasure or to promote intimacy in a valued relationship are more likely to sustain high levels of sexual desire for

a partner over time (Impett et al., 2008). Approach-motivated sex is also associated with higher daily desire and relationship satisfaction, and on days when one partner has sex to pursue approach goals, the other partner experiences more positive emotions, including feeling more loved by and affectionate toward their partners(Muise, Desmarais, Impett, & Milhausen, 2011). Further, engaging in novel activities with a partner creates opportunities for self-expansion, and contributes to increased relationship satisfaction and less boredom in relationships (McKenna, 1989; McNeal & Aron, 1995). In this research, the link between exciting activities and increased satisfaction was stronger for couples who had been together longer, suggesting that self-expanding opportunities can help prevent against typical declines in passion in long-term couples.

Recent research using daily experience methods suggests that sexual desire is responsive to changes in emotions and relationship quality within individuals and across partners. For example, in a 14-day daily experience study of college students in dating relationships, sexual desire was higher on days when people reported experiencing more frequent positive events and was lower on days with more frequent negative events (Impett et al., 2008). However, people who pursued sex for approach goals maintained high sexual desire even on days that would ordinarily be the most threatening to couples, such when they had disagreements with a partner. The link between approach goals and sexual desire in these studies was stronger for women than for men, consistent with research documenting that women's desire may be more "fluid" or responsive to situational cues than men's desire (Baumeister, 2000; Diamond, 2008). In a 56-day daily diary study, Ridley et al (2006) documented considerable variation in patterns of desire in a sample of married couples, and found that people's emotions and feelings about the relationship influenced their own and their partner's sexual desire. Specifically, on days when one partner experienced more positive emotions, both partners reported greater desire, and on days when one partner experienced more negative emotions, both partners experienced lower desire. Feelings of closeness and of equality between partners strengthened the link between positive emotions and desire, and on days when wives felt closer and more equal to their

partners, the link between their husband's positive emotions and their own desire was strengthened. These findings highlight the utility of using dyadic daily experience methods to understand how the daily context of romantic relationships either enhances or detracts from sexual desire.

Sexual Satisfaction

Whereas sexual desire provides the motivation or impetus for engaging in sexual activity, sexual satisfaction represents the extent to which people are satisfied or happy with their sexual experiences. Sexual satisfaction contributes to the quality of ongoing romantic relationships and to overall health and well-being. People who are the most satisfied with their sex lives are also the most satisfied with their relationships, and this is true for both dating and married couples (Brezsnyak & Whisman, 2004; Regan, 2000; Sprecher, 2002). In a multi-national study of individuals from 29 countries, the individuals who were the most sexually satisfied were also the happiest with their lives in general (Laumann et al., 2006). A nationally representative survey revealed that the overwhelming majority of U.S. residents are "extremely" or "very" pleased with the physical (87%) and emotional (85%) aspects of their sex lives (Laumann & Michael, 2001). In this section, we discuss the well-documented association between sexual and relationship satisfaction, with a focus on exchange perspectives, and provide an overview of several established correlates and predictors of sexual satisfaction in relationships.

Sexual Satisfaction and Relationship Satisfaction

In dating and married couples across the lifespan, sexual and relationship satisfaction are closely linked (Byers, 2005, Sprecher, 2002). In a study of university students in dating relationships, changes in sexual satisfaction were positively associated with changes in relationship satisfaction, love and commitment over four years (Sprecher, 2002). In a study that assessed sexual and relationship satisfaction over an 18-month period, changes in sexual and relational satisfaction were not directional but synchronous, and this was partly explained by the quality of communication in the relationship (Byers, 2005).

Much of the research on sexual satisfaction in relationships is grounded in exchange perspectives. Exchange perspectives consider such factors as the balance between rewards and costs, perceptions of equity and equality in relationships, and comparisons between what people expect and what they actually experience in their relationships (see review by Byers & Wang, 2004). This research has shown that people tend to be the most sexually satisfied when they experience high sexual rewards (e.g., feeling closer to a partner), experience fewer sexual costs (e.g. engaging in sexual activities that you do not enjoy), and perceive that both partners are relatively equal in sexual rewards and costs (Lawrance & Byers, 1999). Women are more likely than men to report sexual rewards that are focused on the partner or the relationship (e.g., how your partner treats you when you have sex) and to report sexual costs that focus on physical aspects of the sexual encounter (e.g., how easily you reach orgasm; Lawrance & Byers, 1995). In a sample of married couples, partners who perceived equitable treatment in their relationship were more sexually satisfied than partners who were either over-benefited or under-benefited, although over-benefited partners were more sexually satisfied than those who felt under-benefited (Hatfield et al., 1982). Finally, people who evaluate their rewards and costs more favorably than their expectations regarding how rewarding a sexual relationship *should* be are more sexually satisfied (see review by Byers & Wang, 2004).

Using the Interpersonal Exchange Model of Sexual Satisfaction (IEMSS), Lawrance and Byers (1995) have shown that non-sexual aspects of a relationship are important for sexual satisfaction. For example, in both dating and married couples, relationship satisfaction is associated with sexual satisfaction, and factors that influence relationship satisfaction (e.g., unresolved conflicts) also influence sexual satisfaction (see review by Byers & Wang, 2004). General self-disclosure as well as disclosure of specific sexual likes and dislikes contribute to perceptions of rewards and costs in a relationship, and therefore influence levels of sexual satisfaction (Demmons & Byers, 1999). Sexual self-disclosure is one factor that helps to maintain sexual satisfaction in long-term relationships (MacNeil & Byers, 2009).

Although sexual and relationship satisfaction are often tightly linked, research has also shown that one can occur without the other. Apt and colleagues used cluster analysis to identify distinct profiles of married women who varied in their sexual and relationship satisfaction (Apt et al., 1996). Whereas the most sexually satisfied women experienced the highest levels of relationship satisfaction, and the most sexually dissatisfied women experienced the lowest levels, two of the groups evidenced clear discrepancies between their levels of sexual and relationship satisfaction. Some women reported being satisfied with their sex lives, but not with their relationship, whereas others reported relationship satisfaction without sexual satisfaction. In her book, *Mating in Captivity,* Ester Perel (2007) describes her experience of working with couples in therapy who report being very satisfied with their relationships, but no longer desiring sex (e.g., Perel, 2007). As such, levels of relationship satisfaction are not sufficient to account for the experience of sexual satisfaction in all individuals.

Despite the fact that sexual and relationship satisfaction are not synonymous, extensive research has shown that couples who enjoy positive, satisfying sexual relationships have more stable relationships than couples who are less sexually satisfied or who report sexual problems (e.g., Edwards & Booth; Sprecher, 2002). For example, in a study using data from the National Survey of Families and Households, Yabiku and Gager (2009) found that lower sexual frequency was associated with higher rates of relationship dissolution, and this link was stronger for cohabiting than married couples. One potential reason is that marriage is associated with higher levels of commitment and investment, and married couples may assign less importance to sexual aspects of the relationship. Future research should explore how the association between sexual satisfaction and relationship stability changes over the course of time as intimate relationships progress through different stages and transitions.

Sexual Activity and Sexual Satisfaction

Although sexual satisfaction is not synonymous with sexual frequency, they are often linked. Both men and women report greater sexual satisfaction when their frequency of engaging in sex is high (e.g., Laumann, Gagnon, Michael, & Michaels, 1994), and this association has also been documented in

non-western countries such as China (Cheung et al., 2008) and Iran (Rahmani, Khoei, & Gholi, 2009). In fact, Norwegian couples indicated that having too little sex was the primary reason for reporting sexual dissatisfaction (Traeen, 2010). Sexual frequency and sexual satisfaction are also positively correlated in samples of gay and lesbian individuals (Blumstein & Schwartz, 1983). This association is likely bidirectional, with satisfied couples pursuing sex more frequently and frequent sex leading to increases in sexual satisfaction (McNulty & Fisher, 2008). In a recent study of heterosexual couples in midlife and older adulthood conducted in five countries, affectionate behaviors such as kissing, cuddling and caressing were associated with increased sexual satisfaction for both men and women. Contrary to common gender stereotypes, these associations were strongest for men and these behaviors were also significant predictors of men's (but not women's) general relationship satisfaction (Heiman et al., 2011). Using data from the China Health and Family Life Survey, Parish et al. (2007) found that knowledge of sexuality and more permissive sexual attitudes predicted greater sexual satisfaction in a sample of married and dating Chinese individuals living in urban areas, and this association was fully mediated by a greater variety of sexuality practices such as kissing, fondling, and oral sex.

Although in general men report higher sexual desire than women (see review by Baumeister et al., 2001), some studies have indicated that women report similar or higher levels of sexual satisfaction than men (Heiman et al., 2011; McNulty & Fisher, 2008). Over the course of a long-term relationship, compared to men, women tend to report lower sexual satisfaction in the early stages of the relationship, but report higher sexual satisfaction later on in the relationship (Heiman et al., 2011). Sexual frequency may play a role. If men generally desire more frequent sex than do women, in heterosexual relationships, women may be having sex closer to their desired frequency than their male partners. Indeed, ideal frequency is closer to actual frequency for women than for men (McNulty & Fisher, 2008). In general, physical aspects of sexual response are poor predictors of heterosexual women's sexual satisfaction; better predictors include their emotional well-being and the quality of their relationship with their partner (Bancroft, Loftus, & Long, 2003). However, in a study of mid age adults,

sexual duration, and frequency of sex and orgasm were significant predictors of sexual satisfaction for both men and women, but, contrary to popular beliefs, physical aspects of sex were better predictors of women's satisfaction than relational factors, and relational aspects of sex were better predictors of men's satisfaction (Carpenter et al., 2009). This research suggests that the factors predicting women's satisfaction may be more numerous, complex, and fluid across the lifespan.

Although orgasm frequency is associated with sexual satisfaction (Laumann et al., 1994), it is important to note that feeling sexually satisfied does not imply the absence of sexual issues. Reporting a sexual issue does not necessarily preclude having high sexual satisfaction, just as the absence of sexual issues does not inevitably mean that people are sexually satisfied (King, Holt, & Nazareth, 2007). In one study, 81% of women reported satisfaction with their sexual function, despite the fact that 70% of them reported at least one sexual "problem" (Ferenidou et al., 2008). In her research on optimal sexuality, Kleinplatz has argued that "great sex" has little to do with physical function, but instead involves the critical factors of being present, connection, deep sexual and erotic intimacy, extraordinary communication, interpersonal risk-taking and exploration, authenticity, vulnerability, and transcendence (Kleinplatz, 2006; Kleinplatz et al. 2009). Interestingly, orgasm, which is typically viewed as a standard indicator of sexual function, did not emerge as a key component of or even necessary to experience great sex in Kleinplatz's work.

Dyadic Approaches to Sexual Satisfaction

Dyadic approaches to understanding sexual satisfaction are also gaining traction in recent research. In a study that validated a new scale for measuring sexual satisfaction, Stulhofer, Busko and Brouillard (2010) found that sexual satisfaction has two main dimensions including one that is self or ego focused and reflects satisfaction with personal sensations and experiences, and one that is partner or sexual activity focused and reflects satisfaction with a partner's sexual engagement. Men involved in long-term relationships in middle and later adulthood felt more satisfied with their relationships and their sex lives when they placed greater importance on their partner reaching orgasm during sex

(Heiman et al., 2011). Women's feelings about their bodies are also related to levels of sexual and relationship satisfaction (Koch, Mansfield, Thurau, & Carey, 2005; Pujols, Meston, & Seal, 2009). Among married heterosexual couples, both men and women feel more satisfied with their relationships to the extent that the woman in the relationship feels more sexually attractive (Meltzer & McNulty, 2010).

Exchange perspectives also demonstrate the utility of applying dyadic approaches to the study of sexual satisfaction. Men's and women's reports of their own sexual rewards and costs contribute to their partner's sexual satisfaction above and beyond their partner's own reports of rewards and costs (see review by Byers & Wang, 2004). Using the IEMSS framework, Yucel and Gassanov (2010) demonstrated that sexual satisfaction in marriage was predicted by the interpersonal exchange of sexual rewards (e.g., frequency of sex, marital satisfaction) and costs (e.g., use of pornography, infidelity). Husbands and wives were more sexually satisfied when they had a partner who reported high marital satisfaction, had not experienced infidelity in the relationship, and had a partner who did not report solo use of pornography. In this study, it is important to point out that there was no negative impact when partners used pornography together, a finding which is consistent with other research that finds a positive association between viewing sexually explicit material with a partner and sexual satisfaction (Maddox, Rhoades & Markman, 2011).

One person's feelings about a relationship contribute to both partners' experiences of relationship and sexual satisfaction. People who report higher levels of stress in their relationship such as high levels of family responsibilities or conflict over the division of household tasks are more likely to have partners who are less sexually satisfied. In addition, when women report low levels of stress, marital satisfaction is not associated with frequency of sexual activity, and high levels of marital satisfaction buffer against declines in sexual activity during times of stress. Conversely, when men are relatively dissatisfied in their relationships, increased stress *promotes* sexual activity, suggesting that partners may become more sexually intimate during times of adversity (Bodenmann, Ledermann, &

Bradbury, 2007). Low levels of sexual satisfaction are associated with greater concerns with a partner's ability to provide support or commit to the relationship; however, one partner's feelings of sexual satisfaction seem to bolster the other partner's feeling of certainty about the relationship (Theiss & Nagy, 2010).

Sexual satisfaction has been conceptualized and measured in diverse ways (see review by Stulhofer et al., 2010), which partially accounts for some of the differences observed across studies. In the future, researchers would benefit from working toward a common definition that is multidimensional and considers the context in which sexual activity occurs. In addition, much of the research we have about sexual rewards and costs in relationships is based on individual perceptions. Given the dyadic nature of sexual satisfaction in relationships, research that assesses both partners' perceptions of sexual rewards and costs is warranted.

Sexuality in Same-Sex Relationships

We turn our attention to sexuality in the context of the relationships of lesbians and gay men. At the outset, it is important to point out that most lesbians and gay men want to have committed intimate partnerships (Kaiser Foundation, 2001), and like heterosexuals (Laumann et al., 1994), the majority of gay men and lesbians report currently experiencing their sexuality within the context of an ongoing intimate relationship (Lever 1994, 1995). Despite the fact that most gay men and lesbians say that having "legally sanctioned gay and lesbian marriages" is very important to them (Kaiser Foundation, 2001), these relationships continue to develop within a climate of sexual prejudice (Herek, 2000). Negative social attitudes and unsupportive environments color the lives of lesbians and gay men, and contribute to distinct sexual costs in intimate relationships (Maisel & Fingerhut, 2011). In one study, gay men and lesbians indicated that feelings of vulnerability and negative cultural and social attitudes detracted from their sexual relationships (Cohen, Byers, & Walsh, 2008). It will be essential for future research to investigate how living in a climate of prejudice and fear impacts sexual minority couples' experiences of and feelings about their sexuality. What we do know about sexuality in the

relationships of sexual minority couples is primarily limited to the topics of sexual frequency, desire, and satisfaction, as well as sexual exclusivity and sexual openness.

Sexual Frequency, Desire, and Satisfaction

Research comparing the frequency with which heterosexual and sexual minority couples engage in sexual activity has revealed three general trends. First, in the early stages of a relationship, gay couples tend to engage in sex more often than heterosexual and lesbian couples. For example, findings from the American Couples Study revealed that among couples who had been together for two years or less, two-thirds of gay men reported having sex three or more times per week compared with less than half of heterosexual couples and a third of lesbian couples (Blumstein & Schwartz, 1983). The relatively higher rates of engaging in sexual activity in gay couples may be influenced by a variety of factors, including men's relatively higher rates of sexual desire and comfort with sexual initiation (see reviews by Baumeister et al., 2001; Peplau, 2003).

A second trend concerns sexual frequency and desire over the course of a partnership. In heterosexual relationships, sexual frequency and desire tend to be highest in the beginning stages of relationships when partners are just getting to know each other and then decline over the course of time (Klusmann, 2002; Michael, Gagnon, Laumann, & Kolata, 1994). This steady decline in sexual frequency is also present in gay and lesbian relationships (Blumstein & Schwartz, 1983; Christopher & Sprecher, 2000). Similar to heterosexual couples, the most sexually active gay and lesbian couples are those who have been together for two years or less (see review by Peplau, Fingerhut, & Beals, 2004).

A third pattern—but one that is highly controversial—is that lesbian couples tend engage in sex less frequently than either heterosexual or gay male couples at different stages of relationships (Blumstein & Schwartz, 1983; Laumann et al., 1994). For example, in the American Couples study, lesbian couples engaged in sex less frequently than heterosexual or gay male couples, whether their relationships lasted less than two years or more than 10 years. A couple of recent studies, however, have not found differences in sexual frequency between women in lesbian versus heterosexual

relationships (Meana, Rakipi, Weeks, & Lykins, 2006; Matthews, Tartaro, & Hughes, 2003). Due to these inconsistencies, some have suggested that biases in traditional conceptualizations of sexuality which equate "sex" with penile penetration may be a play in this research (Iasenza, 2002). Other possible explanations for possible lower sexual frequency in lesbian couples include gender socialization that encourages women to inhibit and repress sexual feelings, lower levels of sexual desire, and lower rates of sexual initiation (see review by Peplau et al., 2004).

In addition to studying the frequency with which gay and lesbian couples engage in sex, researchers have also examined sexual satisfaction. Typically, gay and lesbian couples find their sexual relationships to be very rewarding (see review by Peplau et al., 2004). In general, research has revealed no substantial differences between heterosexual and gay and lesbian relationships in ratings of overall sexual satisfaction (Blumstein & Schwartz, 1983; Kurdek, 1991). Research has shown that lesbians tend to have orgasms more often during sexual interactions than do heterosexual women (Kinsey et al., 1953; Nichols, 2004), a finding which may stem from differences in knowledge and sexual techniques of women's partners or differences in the emotional qualities of sexual experiences. The correlates of sexual satisfaction for gay men and lesbians are also similar to those found in heterosexual couples. In general, partners are more sexually satisfied to the extent that they engage in sex more frequently and are more satisfied with their relationships (Blumstein & Schwartz, 1983; Kurdek, 1991). The strength of the link between sexual and relationship satisfaction is similar in magnitude across different kinds of relationships (Holmberg & Blair, 2009). Internalized homophobia, or a gay and lesbian person's internalization of society's negative attitudes toward sexual minority individuals, is one factor that uniquely affects the sexual satisfaction of lesbians and gay men. Research with both gay men (Rosser, Metz, Bockting, & Buroker, 1997) and lesbians (Henderson, Lehavot, & Simoni, 2009) has shown that internalized homophobia detracts from both sexual and relationship satisfaction.

Sexual Exclusivity and Sexual Openness

One of the major differences between lesbian and gay male couples concerns norms and patterns of sexual exclusivity versus sexual openness in relationships (see review by Peplau et al., 2004). In lesbian relationships, monogamy tends to be the norm (Blumstein & Schwartz, 1983). For example, in a study of lesbians from Vermont who sought "civil union" status for their relationships, 92% of the women indicated that their relationship was sexually exclusive both in principle and in practice, and only 4% reported having sex with a person other than their partner since their relationship began (Campbell, 2002 as cited in Peplau et al., 2004).

Whereas monogamy tends to be the norm in lesbian relationships, gay male relationships are characterized by higher levels of sexual openness, perhaps a reflection of men's relatively more permissive attitudes toward casual sex (Peterson & Hyde, 2010). In the Campbell (2002) study of Vermont civil unions, 83% of men characterized their relationships as sexually exclusive, and 61% of the sample reported being sexually exclusive since their relationship began. Other studies have found lower rates of sexual exclusivity among gay men (see review by Peplau et al., 2004). One consistent finding is that while many gay men begin their relationships with expectations of exclusivity, many either explicitly change their intentions or fail to live up to the standards they initially set (Blumstein & Schwartz, 1983; McWhirter & Mattison, 1984).

Because sexual exclusivity is not the norm in gay male relationships, partners tend to make agreements about the nature of their sexual relationship and their expectations for sexual behaviors that occur outside the relationship. In a large quantitative study of 566 gay couples, 45% had monogamous agreements, 47% had open agreements, and 8% reported discrepant agreements (Hoff, Beougher, Chakravarty, Darbes, & Neilands, 2010). Consistent with previous research (Blasband & Peplau, 1985; LaSala, 2004; Ramirez & Brown, 2010), couples with monogamous and open agreements reported similar levels of relationship satisfaction, suggesting that for gay couples, sexual openness does not diminish the quality of a primary partnership. In an in-depth qualitative follow-up study with 39 of

these couples, Hoff and Beougher (2010) investigated the ways in which sexual agreements were negotiated. Negotiation typically involved one of three scenarios including clarifying an existing agreement or expectation, opening a monogamous agreement, or renegotiating an agreement after it had been broken. The men in this study acknowledged that having agreements to allow sex with outside partners had several benefits including actualizing a non-heteronormative sexual identity and establishing boundaries that ultimately fostered a sense of trust and love between partners.

In sum, the picture painted of sexual minority couples is one of overwhelming similarity with heterosexual couples. Most gay and lesbian couples are quite satisfied with their sexual relationships, and relationship satisfaction and sexual satisfaction can both enhance or detract from the other. Frequency of sex and sexual desire tend to decrease over the course of time in relationships, a pattern to which no type of couple seems immune. Whereas most lesbian relationships are sexually monogamous, gay couples are more likely to be sexually open and to have explicit sexual agreements that regulate this openness. We currently know very little about sexuality among older lesbian and gay couples (Wierzalis, Barret, Pope, & Rankins, 2006). In addition, most of the research in this area has involved White couples, so future research is needed with more diverse samples, as well as to investigate the link between sexual experiences and specific cultural norms, values, and attitudes. Finally, bisexual identity has been almost absent from the study of sexuality in the context of relationships. From in-depth interviews with bisexual men and women, we know that maintaining monogamous and open relationships that are satisfying and stable is possible (Edser & Shea, 2010; Gustavson, 2009). However, a survey of over 700 people revealed that bisexuals experience unique challenges in finding a dating partner as they are often stigmatized as not desiring committed relationships (Andruff & Reissing, 2010). Future research that explores how bisexuality shapes couples' sexual and relational experiences is needed.

Sexuality and Relationships in Adolescence and Emerging Adulthood

Forming a healthy sexual identity is a key developmental task of adolescence (see review by

Tolman & McClelland, 2011). Research on adolescent sexuality is commonly organized around diminishing risks and negative outcomes (Ehrhardt, 1996), and historically we have known very little about positive dimensions of adolescents' sexual experiences, particularly those of adolescent girls. Investigations of adolescent sexuality have focused far more on tabulating the number and timing of youths' sexual behaviors rather than on understanding how sexuality develops in a relationship context (see review by Diamond & Savin-Williams, 2008). In this section, we consider recent research on adolescents' first sexual experiences, the varieties of sexual expression, and the pursuit of sexuality in "alternative" relationship contexts.

First Sexual Experiences

An individual's first sexual encounter symbolizes an important milestone or rite of passage in North America (e.g., O'Sullivan, Cheng, Harris, & Brooks-Gunn, 2007), yet most conceptualizations of first sexual experiences are quite negative. First sexual experiences are often referred to as virginity *loss* and explored in reference to the negative consequences such as risk and feelings of guilt (see reviews by Irvine, 2002; Levine, 2002). Initial sexual experiences lay an important foundation for sexual and relationship development, so it is especially important to highlight the positive aspects of these experiences. Indeed, the overwhelming majority of adolescents find their first sexual experience to be quite satisfying. For example, a study of more than 11,625 teens in England and Scotland showed that nearly three quarters were highly satisfied with their first sexual experience (Wight et al., 2008). The majority of adolescents pursue their first sexual experiences in the context of dating relationships (Manning, Longmore, & Giordano, 2000), although boys are more likely than girls to have their first sexual experiences with acquaintances or with girls that they are "just dating" (see review by Diamond & Savin-Williams, 2008), a finding which reflects the broader gender difference in the extent to which men and women view relationships as an important motivator and context for sexuality (see review by Peplau, 2003).

Men consistently report more satisfying first sexual experiences than women (e.g., Carpenter,

2002; Wight et al., 2008). Feelings of guilt, shame and regret about engaging in sexual activity, which are more common among women than men, are likely at play (Crockett et al., 1996; Higgins, Trusell, Moore, & Davidson, 2010). Nevertheless, focusing primarily on gender differences obscures the fact that many girls and women do indeed have pleasurable first sexual experiences, while many boys and men do not (Smiler, Ward, Caruthers, & Merriwether, 2005). A recent Canadian survey found that focusing on the emotional aspects of first intercourse, as opposed to physical satisfaction, reduced the gender discrepancy. Women reported less physical satisfaction than men, but equal levels of emotional satisfaction. Three quarters of both men and women reported having "no regrets" about first intercourse (Tsui & Nicoladis, 2004). It is important to note, however, that about half of the women reported pain at first intercourse (52%) and few reported having an orgasm (11%).

Some researchers have explored the relational factors that make first sexual experiences satisfying (Higgins et al., 2010; Smiler et al., 2005). For both men and women, relationship commitment and greater planning and intentionality predict having a better first sexual experience (Higgins et al., 2010; Smiler et al., 2005; Wight et al., 2008). The relationship context in which sexual activity occurs is also important. Several studies have shown that adolescents tend to find their first sexual experiences more satisfying when they occur in the context of healthy "steady" relationships (Donald, Lucke, Dunne, & Raphael, 1995; Weinberg, Lottes, & Shaver, 1995) although the relationship context appears to be more influential for women's than men's sexual satisfaction. In addition, Carpenter (2002) reported that women whose first sexual experience was cunnilingus with another woman were more likely to describe the experience as physically pleasurable than women whose first experience was through sexual intercourse.

The Varieties of Sexual Expression

Although most of the existing research on adolescent sexuality has focused on sexual intercourse, adolescents engage in other physically intimate behaviors such kissing, intimate touching and oral sex more often than they have intercourse (Carver, Joyner, & Udry, 2003; Hensel, Fortenberry,

& Orr, 2008). In one study, over 80% of teens had engaged in noncoital, partnered sexual activities before the age of 16 (Bauserman & Davis, 1996). Several studies have shown that noncoital affectionate behaviors are positively correlated with relationship satisfaction and commitment (Rostosky, Welsh, Kawaguchi, & Galliher, 1999; Welsh, Haugen, Widman, Darling, & Grello, 2005).

Consistent with the more general focus on diminishing sexual risk-taking and promoting safer sexual behavior among adolescents, much of the research on adolescent sexual has focused on identifying the barriers to as well as the factors that promote consistent contraceptive and condom use (see review by Diamond & Savin-Williams, 2008). Given that condom use involves an interaction between two partners, it is essential to understand the relationship factors that promote or hinder participation in safe sex. Condom use tends to be more common with a new sexual partner and during the early weeks of relationships (Ku, Sonenstein, & Pleck, 1994; Manning et al., 2000). Research has shown that rates of condom use among adolescents tend to drop off dramatically, perhaps at less than one month of relationship duration (Fortenberry et al., 2002). Condom use tends to be less likely in relationships marked by greater emotional intimacy and closeness (Hensel, Fortenberry, & Orr, 2008; Katz, Fortenberry, Zimet, Blythe, & Orr, 2000; Woodrome, Zimet, Orr, & Fortenberry, 2006), consistent with findings in the literature on young adults (see review by Noar, Zimmerman, & Atwood, 2004).

Research with both adolescents and young adults has shown that different types of reasons for engaging in sex are associated with sexual risk-taking behaviors. For example, research by Cooper et al. (1998) has shown that having sex for enhancement reasons (e.g., to pursue physical pleasure) has been linked to an earlier age of first intercourse, having more sexual partners and one-night stands, and a greater risk for acquiring sexually transmitted infections and unplanned pregnancies. Engaging in sex for intimacy reasons (e.g., to promote closeness with a partner) has also been associated with more frequent sex, as well as less frequent and consistent condom use (Cooper et al., 1998; Katz et al., 2000). However, a study of British adolescents suggests that youth who engage in sex in pursuit of intimacy

are more likely to discuss contraceptive use before first intercourse and to actually use it during their first sexual experience (Stone & Ingham, 2002), suggesting that pursuing sex for intimacy motives may enable young people to feel more comfortable discussing sexual topics at the beginning of their relationships.

Moving beyond a focus on sexual risk, some researchers have investigated links between sexual intercourse and the quality of adolescent romantic bonds. Sexual intercourse has complex links to romantic relationship quality (Fortenberry et al., 2005), and depends on such factors as the timing of intercourse and the relationship context. For example, in early adolescence, engaging in sexual intercourse has been associated with being involved in poorer quality relationships characterized by lower relationship satisfaction and commitment (Welsh et al., 2005). However, engaging in sexual intercourse in a romantic relationship context later in adolescence has been associated with greater satisfaction and commitment. In early adolescence, sexual behavior may be more commonly motivated by desires to avoid losing the relationship or difficulties communicating about sexual behavior (O'Sullivan & Meyer-Bahlberg, 2003; Widman et al., 2006). As romantic relationships become more intimate, sexual behaviors may be one way in which partners express their growing commitment (Rostosky et al., 2000). In addition to age, sexual motivation has been shown to influence sexual experiences in adolescence. In a sample of girls ages 16-19, those who engaged in sex out of feelings of physical attraction or love were more likely than girls with lower approach motives to report that their most recent sexual experience was "good," that they liked how their body felt, and that the experience made them feel closer to their partner (Impett & Tolman, 2006).

"Alternative" Sexual Relationships

Although the majority of adolescents and emerging adults have their first sexual experiences within the context of romantic relationships, there has been growing concern over young people engaging in "alternative" sexual arrangements that deviate from the conventional couple model of exclusive romantic involvement (Grello, Welsh, & Harper, 2006; Grello, Welsh, Harper, & Dickson,

2003; Hughes, Morrison, & Asada, 2005; Manning et al., 2000; Paul & Hayes, 2002). Casual sexual relationships are no longer solely defined as a one time sexual encounter; instead casual sexual experiences can range from a one-time "hook-up" to an ongoing sexual relationship with a friend. In a focus group study, young people identified a variety of casual sex relationships including one night stands, one-time sexual encounters with a stranger or an acquaintance, friend with benefits (FWB) relationships, and the addition of sex to an existing friendship without a romantic commitment (Wentland & Reissing, 2011). In a nationally representative sample of sexually experienced adolescents ages 12-21, 70-85% reported engaging in intercourse with a casual sex partner in the previous year (Grello et al., 2006), most frequently with a friend (see also Manning, Giordano, & Longmore, 2006). In addition, FWB relationships have become common occurrences among college and university students, with 33-60% of undergraduate research participants reporting at least one experience with a FWB (Owen & Fincham, 2011).

Although there is empirical work suggesting that adolescents whose first sex took place within a casual rather than in a romantic relationship are more likely to report depressive symptoms and delinquent behaviors (Grello et al., 2003; Monahan & Lee, 2008), they tend to report these problems both before and after the transition, suggesting that casual sex is a correlate rather than a cause of adjustment problems. The associations between casual sex and poor adjustment tend to be stronger for women than for men (Grello et al., 2003; 2006), in part reflecting the influence of a double standard that stigmatizes women for engaging in casual sex (Crawford & Popp, 2003; Milhausen & Herold, 2001). Studies focusing specifically on young women have found that alternative relationships are frequently associated with shame, disappointment, regret, and sometimes sexual coercion (Caruthers, 2006; Hughes et al. 2005; Paul & Hayes, 2002). It is also important to point out that sex in the context of casual relationships has the potential to be as empowering as it might be damaging. Alternative sexual relationships may allow women in particular to break free of gender-stereotypical relationship roles. In terms of FWB relationships specifically, research does not support the assertion that these

relationships are emotionally damaging for young people (Eisenberg, Ackard, Resnick, & Neumark-Sztainer, 2009) and in fact, Giordano, Manning, and Longmore (2006) suggest that these relationships may allow teens to seek sexual pleasure outside the confines of conventional relationships marked by power differentials between partners. In an in-depth qualitative study, Caruthers (2006) found that young adult women with one or two casual hookups did not have lower psychological or sexual well-being than did women who pursued sex within conventional dating relationships, and those with periodic hookups were characterized by high sexual assertiveness and high sexual self-esteem.

In general, the majority of both men and women report more positive feelings about their FWB relationships such happiness, excitement and desirability, than negative feelings such as disappointment, confusion, or emptiness, with men being more likely than women to report positive outcomes (Owen & Fincham, 2011). University students indicate that the main advantage of a FWB is access to sex and companionship with a known and trusted friend without the commitment of a romantic relationship, however there were also possible downsides, such as ruining the friendship or risking emotional pain if one person develops unreciprocated romantic feelings (Bisson & Levine, 2009; Weaver et al., 2011). Direct, honest communication about the nature of the relationship is thought to be one way to buffer against the negative consequences (Weaver et al., 2011), and those who worry about losing the friendship or are hoping for a committed relationship are more likely to experience negative emotions (Owen & Fincham, 2011). Nevertheless, there are sexual health implications of FWB relationships. Due to the established friendship, FWB relationships typically involve lower rates of condom use than other casual sex relationships, and individuals involved in FWB relationships may have additional sexual partners that are not always disclosed (VanderDrift, Lehmiller, & Kelly, 2010).

In future research, it will be important to understand the factors that account for the diversity of outcomes of pursuing different types of sexual relationships so that we can best promote positive sexual development in adolescence and emerging adulthood. In addition, research that explores more nuanced motivations for pursuing ongoing casual sex relationships, and utilizes longitudinal and daily

diary methods to understand how FWB relationships are managed and negotiated over time is warranted. Research on FWB relationships has also tended to rely on hypothetical scenarios or retrospective reports. Using daily experience and longitudinal methods, researchers can assess an individual's initial hopes, concerns, and expectations for the relationship, as well as aspects of his or her personality, and then track the development of sexual relationships over time. This could provide valuable information about who is most likely to experience positive or negative consequences of involvement in FWB relationships. Although Bisson and Levine (2009) suggest that a minority (10%) of FWB relationships develop into romantic relationships, it would be interesting to explore how the FWB arrangement impacts a potential romance and the existing friendship between partners.

Sexuality in Middle and Older Adulthood

Sexuality is an important component of romantic relationships throughout the life course. Although middle adulthood (typically defined as ages 45-59) and older adulthood (ages 60 and over), have been associated with declines in sexual frequency, especially for women, these studies have often failed to discriminate between partnered and non-partnered individuals (Araujo et al., 2004). Driven in part by the growing use of pharmaceuticals for male sexual dysfunction, much of the research on sexuality and aging reflects biological and medical perspectives which suggest that physical transformations, hormonal changes, and chronic illnesses reduce sexual activity and interest with age (Bacon et al., 2003; Corona et al., 2010; Lindau et al., 2007). The protective function of a positive partnership and reports of *enhanced* sexual experience in later life relationships have been largely absent from the literature. In this section, we discuss sexual activity, sexual desire, and the association between sexual and relationship satisfaction in the context of relationships during middle and older adulthood.

Sexual Activity

Age-related changes in sexual interest and frequency can, at least partially, be accounted for by a person's relationship status, since the proportion of single individuals increases with age, and by the prevailing belief that "real sex" is penetrative sex. Women are more likely than men to lose their

partners during older adulthood, due to the fact that women tend to marry at younger ages than do men and have a greater life expectancy (Karraker et al., 2011). Since the vast majority of sexual activity takes place within the context of marriage or long-term partnerships, opportunities for sexual activity tend to diminish with age, particularly for women (Gott & Hinchliff, 2003; Waite et al., 2009). Couples in middle and older adulthood also report declines in sexual frequency, but these declines are only weakly predicted by age-related physical changes and the presence of illness (DeLamater & Moorman, 2007). Further, in a study of partnered individuals aged 57-85, the proportion of individuals who reported engaging in sexual intercourse in the last year declined with age, but the frequency of non-coital sexual activities such as kissing, caressing, and cuddling was not associated with age (Waite et al., 2009). Waite and colleagues found that partnered individuals who remained sexually active at older ages had fairly frequent sexual relations. Sexual frequency remained stable throughout the 65-75 year age range, with a modest decrease at older ages. In the oldest age bracket, 25% of individuals who had been sexually active in the past year reported weekly intercourse, at minimum (Waite et al., 2009). This pattern reflects an age-related decrease in the *proportion* of couples remaining sexually active, but does not suggest dramatic age-related declines in sexual frequency for all couples.

Despite these findings, physical functioning is an important factor to consider when studying sexuality and aging. Failure to meet expectations for intercourse leading to orgasm can lead to declines in sexual self-confidence, satisfaction, and, ultimately, avoidance of sexual activity (Kontula & Haavio-Mannila, 2009). The association between one's own health problems and partnered sexual activity is stronger for men than women (Karraker et al., 2011; Kontula & Haavio-Mannila, 2009), and male health problems are overwhelmingly cited as the reason for sexual inactivity in relationships during older adulthood (Gott & Hinchliff, 2003). Despite recent advances in sexual enhancement drugs such as Viagra, many older adults would rather not trade the synchrony and sensual pleasures of natural aging for a medically aided return to penetrative sex (Potts et al., 2006; Vares et al., 2006). Couples who are able to move beyond the notion that intercourse is the primary or only mode of sexual expression

and whose sex lives incorporate a broader repertoire of sexual behaviours seem better able to maintain or experience heightened sexual satisfaction in older adulthood (Hartmann et al., 2004; Hinchliff & Gott, 2008; Potts et al., 2006). For these couples, physical satisfaction with the relationship, sexual desire, and positive attitudes about sex are integral to remaining sexually active (DeLamater & Moorman, 2007).

An individual's sexual repertoire in later life is associated with his or her sexual activities and preferences across the lifespan. Woloski-Wruble et al. (2010) observed that current variety of sexual activity was predicted by sexual variety throughout the life course for women over the age of 56, highlighting the importance of conducting longitudinal research on sexuality. These findings raise questions about the cross-sectional approach typical of aging research. If sexual activity is consistent across the lifespan, lower sexual activity in older age brackets may stem from cohort effects, rather than being a function of aging in and of itself. An important direction for future work will be to survey individuals who reached sexual maturity during or after the sexual revolution. Longitudinal data from this generation will be uniquely poised to depict the sexual changes associated with aging than the cross-sectional data that is currently available.

Sexual Desire

While research indicates that the frequency of sexual activity often declines with age, feelings of sexual desire may be more likely to remain high. In a U.S. nationally representative study of partnered individuals in middle and older adulthood, there was no association between age and problems with sexual interest (Waite et al., 2009). Umidi et al. (2007) examined the impact of both aging and relationship context on sexual desire in single and married residents of Milan over the age of 65. Taken together, levels of desire for sexual contact with a partner in this population were high, and gender discrepancies disappeared once singles were removed from the sample, with sexual desire reported by 91% and 89% of married men and women, respectively. In addition, ratings of the importance that people placed on affectivity and sexuality predicted levels of sexual desire. Similarly, Papaharitou et al.

(2008) found that the majority of older adults in their sample who had married out of love and were still 'in love' with their partners reported feeling sexual desire, flirting with their partner, and having regular sexual intercourse. For women, sexual desire becomes increasingly responsive to relationship factors with age. In a sample of women ages 24-60, sexual desire, intimacy, and excitement declined with age and relationship duration, but mid life and post-menopausal women exhibited increased synchrony between relationship satisfaction and sexual desire, arousal, and satisfaction (Birnbaum, Cohen, & Wertheimer, 2007). Feelings about intimacy in the relationship and behaviors such as eye contact, kissing and caressing, may become more important to sexual desire with age.

Sexual and Relationship Satisfaction

As in relationships at other stages of the life course, sexual and relationship satisfaction are associated in middle and older adulthood (DeLamater et al., 2008; Penhollow et al., 2009). Studies that report declining sexuality with age often do not distinguish between partner-specific and global measures of sexual satisfaction, which have been shown to have distinct correlates (Dundon & Rellin, 2009). While factors such as psychological well-being and menopausal symptoms are linked to global sexual satisfaction, other factors such as relationship quality and emotional closeness with a partner are associated with partner-specific sexual satisfaction. In contrast to ideas that relational factors are more important to women's sexuality than men's, partnered men in middle and late adulthood exhibit greater concordance between their relationship and sexual satisfaction than partnered women in the same age group (Heiman et al., 2011; Penhollow et al., 2009). In the same way, the proportion of partnered men reporting that 'they would not have sex without love' increases in older age brackets, while remaining stable for women (Waite et al., 2009). Finally, the importance of having a loving relationship with one's current partner is more closely tied to men's sexual satisfaction than to women's in the 40-59 year age range (Carpenter et al., 2009).

The shifting dynamics of sexual and relationship factors as couples age also provide the potential for *improvements* in sexuality in later life. Hartmann et al. (2004) examined the relation between

age and sexuality for women across the lifespan, and observed a higher correspondence between desired and actual frequencies of sexual activity for women over 45 than for younger women. In a study of over 1,000 couples in the U.S, Japan, Brazil, Germany, and Spain, Heiman et al. (2011) found that men's relationship happiness increased with relationship duration, and men in the 55-59 year old age range were more likely to report experiencing heightened physical and emotional satisfaction with their sexual relationships than their younger counterparts. Similarly, men who reported more frequent kissing, hugging, touching, and caressing, as well as those who placed and a premium on partner orgasm expressed greater relationship happiness. For women, relationship duration was more closely tied to sexual satisfaction than to relationship satisfaction. Women in longer-term relationships (i.e., those lasting 25-50 years) reported experiencing greater sexual satisfaction than men in long-term relationships, as well as greater sexual satisfaction than women in relationships of 10 years or less (Heiman et al., 2011). Consistent with these findings, Carpenter et al. (2009) found that women ages 40-59 preferred longer sexual encounters than same-aged men, and exhibited a greater link between bodily aspects of the sexual relationship (i.e., such as orgasm regularity, sexual frequency, and duration of the sexual encounter) and sexual satisfaction. Research framing late life as a period with potential for sexual growth and enhancement provides a unique counterpoint to the claim that physical aging detracts from partnered sexual activity.

In sum, while research on sexuality and relationship factors in middle and older adulthood has been limited, the emerging picture of the aging couple is not one of certain asexuality. Instead, this research highlights the protective effects of being involved in a positive, healthy partnership during a life stage when erotic and intimate aspects of relationship functioning become more deeply intertwined. Age-dependent biological changes that take place within the context of a close relationship and that are accompanied by an inclusive shift in sexual meaning making represent opportunities for sexual growth and discovery. As survey data from older adults who were socialized during or after the 'swinging 60s' becomes available, empirical evidence for sexual expansion during this life stage may be obtained.

The Dark Side of Sexuality

Romantic relationships can include sexual experiences that are positive, emotionally rewarding and highly pleasurable at all stages of the life span, but they can also include negative emotions and risks of emotional and physical pain. In this section we discuss how sexual aggression, extradyadic sex, and sexual jealousy in the context of ongoing intimate relationships.

Sexual Aggression

In the same way that intimacy enhances the positive qualities of sex, the relational context may also influence the physical and psychological consequences of unwanted sexual behavior and other forms of sexual aggression. Still considered less serious and given less attention than non-partnered assault, sexual aggression at the hands of an intimate partner is especially traumatic (Kirkwood & Cecil, 2001; Plicta & Falik, 2001; Temple et al., 2007). It is also more prevalent than is widely believed, with 21% to 30% of undergraduates and 49% of newlyweds reporting sexual coercion in their current relationship (Brousseau et al., 2011; Katz & Myhr, 2008; Panuzio & Dilillo, 2010). Among long-term married couples, the prevalence of sexually aggressive behaviors is as high as 50% (Monson et al., 2009). In heterosexual relationships, women are more commonly victimized than men (Brousseau et al., 2011), but Waldner-Haugrad and Gratch (1997) found no such gender differences in gay and lesbian relationships, with 52% of all individuals reporting at least one lifetime incident of sexual coercion.

It is difficult to make broad interpretations of the existing data and compare findings across studies due to inconsistencies in the ways that sexual aggression is operationalized and measured. For instance, lower prevalence rates are found when aggression is narrowly conceptualized as the use of physical force (Russell, 1990). Verbal coercion has been neglected by sexual aggression researchers, but exerting social or emotional pressure on one's partner in order to obtain sex is just as reflective of wider relational problems as the use of physical force (Katz & Myhr, 2008). Further, people report lower rates of sexual victimization when polled about their current relationship than when they are asked about past relationships (Brousseau et al., 2011), and higher rates of marital rape are obtained by the use of

semi-structured interviews than standard survey methods (Russell, 1990), again suggesting that the types of methods that researchers use influence comfort with disclosing sensitive information about sexual experiences.

Several unique aspects of sexual aggression within intimate relationships lead to greater physical and psychological damage than the same acts perpetrated by a stranger or acquaintance. First, revictimization is a hallmark of intimate partner sexual aggression. Compared to women raped by a stranger, victims of marital rape suffer greater proximity to the abuser and are more likely to sustain multiple sexual assaults (Mahoney, 1999). Second, there is greater overlap between sexual, physical, and psychological aggression when an intimate partner is the offender. For instance, people who suffer a combination of physical and sexual violence at the hands of an intimate partner tend to experience more unwanted sexual activity, more psychological aggression, and more severe partner abuse than victims of physical or sexual violence alone (Katz, Moore, & May, 2008). Finally, given the ties between revictimization, covictimization, and sexual aggression within intimate relationships, the psychological harm incurred from intimate partner aggression is especially severe. Across studies, women victimized by a partner are more likely to be diagnosed with depression, anxiety, and PTSD than victims of non-intimate sexual aggression (Plichta & Falik, 2001; Temple et al., 2007).

The physical and psychological injuries associated with intimate partner sexual aggression have prompted relationship researchers to clarify the factors that place couples at risk for this behavior. Katz and Myhr (2008) identified three important correlates of sexual aggression in undergraduate dating relationships, including emotional abuse, monitoring behaviors, and general psychological aggression. Further, destructive verbal conflict patterns such as negative conflict engagement, withdrawal during conflict, and infrequent positive problem solving were associated with increased sexual aggression. Among married couples, correlates of unwanted sexual activity include the victim's belief that sex is a duty, as well as female sexual dysfunction variables such as vaginal dryness, sexual pain, low arousal, and inorgasmia (Parish et al., 2007). In addition, relationship characteristics such as physical violence,

inequity, an absence of daily intimacy and foreplay, and insensitivity to female sexual needs are associated with marital sexual aggression. In intimate relationships where the man perceives himself to be of equal or greater desirability than his partner, men's perceptions of a relational threat, such as their partner's sexual infidelity, predict greater rates of sexual coercion. Finally, DeMaris (1997) examined whether the elevated sexual activity that is typical of violent marriages can be attributed to mutual hypersexuality or sexual extortion. Only husbands' violence predicted more frequent marital sex, lending support to the sexual extortion hypothesis.

The effects of intimate sexual aggression on sexual and relationship functioning are far-reaching. Verbal sexual coercion in dating relationships is associated with lower levels of relationship satisfaction, sexual satisfaction and sexual desire (Katz & Myrh, 2008). In a longitudinal study of newlywed couples, Panuzio and Delilo (2010) found that higher rates of sexual coercion were associated with lower marital satisfaction one and two years later, and decrements in marital satisfaction were the same regardless of the aggressor's gender. Consistent with these findings, victims of marital rape report more difficulties reaching orgasm and greater fear of sexuality than victims of marital violence alone (Shields et al., 1990). On top of sexual functioning problems, 88% of women who have been stalked and forced to have sex by an intimate partner report diminished sexual enjoyment, compared to 48% of women who have experienced a stalking-only relationship (Logan et al., 2007).

Just as many aspects of intimate relationships change with increased relationship duration and commitment, so too does sexual aggression. With increasing relationship duration, Katz and Myhr (2008) found that there is a shift from pestering dating partners for sex to verbal sexual coercion. In the same way, after sexual access has been established in a relationship, many men transition from using positive pressure tactics such as professing affection, paying their partner compliments, and promising to move the relationship forward, to negative tactics such as threatening to leave the relationship and invoking feelings of guilt and obligation (Livingston et al., 2004). Basile (2002) determined that, while 10% of women report experiencing intimate partner rape in their lifetime, this number jumps to 13%

when only married respondents are considered. Further, prevalence rates for all types of sexual coercion are greater for women victimized by a spouse than another type of intimate partner. These findings suggest that, if anything, increased commitment and relationship duration amplify the constraints on leaving, and promote rather than buffer partners from perpetrating or being the victims of sexual aggression.

In sum, victimization by an intimate partner constitutes an extraordinary breach of trust and security. This aspect of intimate partner sexual aggression, coupled with greater opportunities for revictimization and covictimization, amplify the sexual, physical, psychological symptoms of sexual coercion. Despite these outcomes, the belief that intimate partner sexual aggression is 'not real rape' is widespread. Future studies should seek to dispel myths about the 'minor' nature of intimate partner sexual aggression and identify how sexual coercion changes over the course of ongoing intimate relationships.

Extradyadic Sex

The central role of sex in ongoing relationships is underscored by the impact of extradyadic sex (EDS) on intimate relationships. A major source of relationship distress and dissolution, EDS is the most common antecedent of divorce and is frequently accompanied by depression and decrements in general psychological health for betrayed partners (Amato & Previti, 2003; Cano & Leary, 2000). Despite expectations for sexual exclusivity in over 94% of ongoing relationships, 1% to 17% of cohabiting and married individuals report at least one lifetime incident of EDS, with prevalence rates ranging from 2% to 5% in any given year Traeen & Martinussen, 2008; Treas & Giesen, 2000; Whisman, 2007; Whisman & Snyder, 2007). In undergraduate populations, EDS rates range from 19% to 21%, with as many as 51% of individuals reporting infidelity when the definition is expanded to encompass both sexual and emotional involvement with an extra-pair partner (Brand et al., 2007; Mark, 2011). The disconnect between expectations for sexual exclusivity and the reality of EDS has been the focus of much research, but findings vary across studies, and conclusions are hampered by inconsistent

and ambiguous definitions of extradyadic involvement. In the same way, the air of secrecy, guilt, and shame surrounding EDS makes it imperative to protect participants' anonymity. As a result, retrospective, cross-sectional designs that conflate the causes and consequences of EDS have dominated the literature, and longitudinal studies that provide detailed data on EDS, but compromise anonymity, are scarce.

Research undertaken to identify the factors that compel certain individuals to violate couple scripts for sexual exclusivity has focused on uncovering the demographic and personal characteristics that predispose individuals to engage in EDS, as well as more proximal factors that provide individuals with direct incentives and opportunities for engaging in EDS. In terms of demographic and personal factors, research has shown that individuals who are low in religiosity, are more educated, and have higher income are relatively more likely than others to engage in EDS (Atkins et al., 2001). The influence of other factors such as age and relationship duration on EDS is less straightforward (DeMaris et al., 2009; Treas & Giesen, 2000). One relatively consistent finding is that men have a greater desire to engage in EDS and hold more permissive attitudes toward EDS than women. Consistent with these gender differences in attitudes, some research points to higher prevalence rates of EDS for men than women (Atkins et al., 2001). Other studies suggest that gender differences in the prevalence of EDS are shrinking or non-existent, especially in younger cohorts (Brand et al., 2007; Mark et al., 2011). To address these inconsistencies, Treas and Giesen (2000) found that sex differences in EDS among married and cohabiting individuals were substantially reduced after accounting for sexual interest, sexual values, relationship satisfaction, and network ties to one's partner. These findings indicate that sex differences in EDS may be the product of attitudinal and relationship variables, rather than gender *per se*.

In addition to demographic and personal characteristics, specific interpersonal circumstances seem to make EDS more likely. Low marital quality and female sexual unavailability during pregnancy represent proximal incentives for interested individuals to engage in EDS (DeMaris, 2009; Whisman et

al., 2007). In addition, high quality alternatives and time away from one's primary partner serve as proximal opportunities for EDS (Atkins et al., 2005; DeWall et al., 2011). DeMaris and colleagues (2009) investigated the association between EDS and proximal and distal factors in a 20-year longitudinal study of married and cohabiting individuals. While racial minority status, low religiosity, and marital duration predicted engaging in EDS, marital quality variables were uniquely associated with EDS and fully mediated the race-EDS link. The intervening role of relationship variables in the link between intrapersonal characteristics was further clarified in two studies. In a study by Whisman et al. (2007), marital dissatisfaction accounted for the effects of low self-esteem on EDS. In a study by DeWall et al. (2011), avoidantly attached individuals were more likely to engage in EDS due to lower levels of commitment to their romantic relationships. Finally, in a study by Demaris et al. (2009), whereas EDS was not associated with relationship satisfaction, it was associated with spousal violence, proneness to divorce, marital instability, and time spent together, suggesting that specific relationship factors may contribute to EDS more than the general quality of intimate relationships.

Research has also examined people's self-reported motivations for engaging in EDS. Individuals tend to emphasize relationship dissatisfaction as a major reason for their extradyadic involvement. In a study of undergraduates by Brand et al. (2007), boredom and dissatisfaction with a primary relationship, as well as being made to feel attractive by an extra-pair individual were among the most frequently reported reasons for pursuing EDS. Dissatisfaction with the primary relationship is cited more often by women than by men, suggesting that, while prevalence rates do not differ by gender, motivations for engaging in EDS do (Blow & Hartnett, 2005; Brand et al., 2007). Among married and cohabiting men, EDS has been linked to the tendency to engage in regretful sexual behavior during negative emotional states, a high propensity for sexual excitation, high sexual inhibition stemming from fears of performance failure, and low regard for the consequences of EDS (Mark et al., 2011). The same sexual inhibition factors predict female EDS, along with low relationship happiness, and low sexual

compatibility (Mark et al. 2011). These findings point to the relatively larger role of relationship variables and mate-switching intentions in female than male EDS.

Differences in EDS motivations are implicated in the outcome-related discrepancies of male versus female-perpetrated EDS. Women who engage in EDS are more likely to reveal their extra-pair involvement to their primary partner, initiate a break-up following EDS, and begin seeing their extra-pair partner after relationship termination (Brand et al., 2007). Researchers have suggested that this gender difference signals a link between EDS attributions, forgiveness, and relationship dissolution. In a study by Hall and Fincham (2006), forgiveness following EDS predicted couple reconciliation, and attributions for EDS that were external, specific, and unstable led to forgiveness. Given that female sexual behavior is more closely linked to love than is male sexual behavior, gender differences in attributions for EDS may detract from partner forgiveness following female EDS (Meston & Buss, 2007). As a result, relationship dissolution may be more likely in the case of female EDS due to a woman's possible intentions to switch mates and less forgiveness on the part of male partners. Future research should examine the combined effect of self-reported motivations for EDS and partner forgiveness on relationship dissolution.

While relationship dissolution is the most common outcome of EDS, some couples persevere in the face of EDS discovery. Reports of relationship improvement are rare, but enhanced marital closeness, increased assertiveness and self-care, a greater appreciation for good marital communication, and a higher value placed on family have been observed following infidelity (Charny & Parnass, 1995; Olson et al., 2002). By the same token, although couples attending therapy for infidelity problems report less time together, less enjoyment of time spent together, and more dishonesty, narcissism, and relationship instability at the outset of therapy, relationship change is comparable to or faster than that of couples attending therapy for other reasons (Atkins et al., 2005; Atkins et al., 2005). Further, when gay men discuss and set ground rules for EDS in order to satisfy their intimacy and sexual diversity needs, open couples report equal dyadic adjustment and greater dyadic satisfaction than couples that

have agreed on sexual exclusivity (LaSala, 2004). By contrast, when EDS is not addressed, the primary relationship is likely to deteriorate.

Research on long-term EDS is scarce, but the marital dynamic in cultures that tacitly condone male EDS provides insight into the effects of unaddressed infidelity on ongoing relationships. Moore (2010) gathered qualitative data on couple dynamics in Japanese marriages. Individuals over the age of 60 reported sexless, sibling-like relationships and, often, individuals attributed current marital celibacy to husband infidelity beginning early on in the relationship. Typically, this infidelity was not addressed. What followed was a breakdown in couple communication, growing distance between partners, female sexual unavailability, and the eventual loss of sexual ways of relating within the dyad. These findings are consistent with reports that women react to partner-EDS by distancing themselves from the marital relationship, while men more often respond with violence (Jankowiak, 2002).

Sexual Jealousy

Feelings of jealousy are one response to a perceived relationship threat, such as a partner's extradyadic behavior. Although jealousy can be seen as a sign of love and intent to preserve an important relationship (Brinkle & Buunk, 1986), it is more often described as a negative emotion, one that has detrimental consequences for romantic relationships. In general, jealousy is associated with relational dissatisfaction and instability (Andersen, Eloy, Guerrero, & Spitzberg, 1995), as well as aggression toward a romantic partner (DeSteno, Valdesolo, & Bartlett, 2006).

An abundance of evidence suggests that men are more likely than women to experience jealousy in response to sexual infidelity, and women are more likely than men to experience jealousy in response to emotional infidelity, findings which have been attributed to men's greater concern about parental certainty and women's greater concern about loss of resources (e.g., Buss, 2000, Buss, Larsen, Westen & Semmelroth, 1992). One common criticism of these findings is that they are based on hypothetical forced-choice scenarios (DeSteno, 2010). When men and women are not forced to choose between emotional and sexual infidelity, they tend to rate *both* types of infidelity as jealousy-provoking

(DeSteno, Bartlett, Braverman, & Salovey, 2002; Lishner, Nguyen, Stocks, & Zillmer, 2008), suggesting that there is overlap between these two types of infidelity and that both can be distressing for men and women. Evolutionary psychologists agree that the evidence for gender differences in jealousy is greatest in response to situations that explicitly either sexual *or* emotional jealousy (Miller & Maner, 2009). Research has also focused on gender differences in response to *actual* infidelity in romantic relationships. In one study (Kuhle, 2011), researchers analyzed 51 episodes of *Cheaters,* a reality show that captures actual infidelity experiences, and found that men were more likely than women to inquire about the sexual nature of the infidelity such as by asking their partners "Did you have sex?" whereas women were more likely than men to inquire about the emotional nature of the infidelity such as by asking their partners "Are you in love?"

There is a great degree of variability in the extent to which individuals experience jealousy in relationships and worry about relational threats (Pfeiffer & Wong, 1989). Miller and Maner (2009) found that gender differences in responses to sexual versus emotional infidelity were substantially more pronounced in individuals who were higher in chronic jealousy. Several individual differences also predict the experience of jealousy. Both men and women who have higher sex drives experience more sexual jealousy, and this association is stronger for men than for women (Burchell & Ward, 2011). Previous experience with sexual infidelity and higher levels of avoidant attachment predict increased sexual jealousy for men (Burchell & Ward, 2011). In general, avoidant attachment is associated with discomfort with emotional closeness, so emotional infidelities are often less distressing than sexual infidelities for avoidant individuals (Levi, Kelly, & Jack, 2006). In contrast, men and women who are higher in anxious attachment report higher levels of emotional jealousy (Knobloch, Solomon, & Cruz, 2001). In two studies of heterosexual couples, both self and partner personality characteristics were associated with jealousy. Highly neurotic and less agreeable individuals reported experiencing more jealousy, and those who were high in conscientiousness and who had conscientious partners worried

less about a partner's infidelity but reacted more negatively to a partner's betrayal when it did occur (Dijkstra & Barelds, 2008).

Situational factors also influence feelings and responses to jealousy. Sheets, Fredendall and Claypool (1997) identified four types of jealousy-provoking situations including times when one's partner shows sexual or romantic interest in another person, when another person shows sexual or romantic interest in one's partner, when one's partner talks about or interacts with prior relational or sexual partners, and ambiguous scenes involving a partner. In a study of undergraduate students who were Facebook "friends" with their romantic partner, spending more time on Facebook was associated with increased jealousy, a finding that was attributed to Facebook providing increased exposure to the common triggers of jealousy (Muise, Christofides, & Desmarais, 2009).

In a study of individuals in dating and marital relationships, jealousy expression was a stronger predictor of relationship satisfaction than jealousy experience. Partners who were able to express their feelings without placing blame on the partner were more satisfied than those who used accusatory, argumentative statements or who actively distanced from a partner (Andersen et al., 1995). Behavioral responses to jealousy can involve direct confrontations or more indirect behaviors such as ignoring one's partner (Guerrero, Andersen, Jorgensen, Spitzberg, & Eloy, 1995) and engaging in partner surveillance or "snooping" behaviors. Guerrero and Afifi (1999) found that more intense and frequent experiences of jealousy predicted more partner surveillance (e.g., snooping or keeping close tabs on a partner). Among newlywed couples, a person was most likely to snoop if their partner was reluctant to share information with them and discuss their thoughts and feelings, and this was especially true for people who had low trust in their partners (Vinkers, Finkenauer, & Hawk, 2011). Due to the importance of jealousy responses for relationship quality, additional dyadic research on how couples manage jealousy in their relationships and qualitative research on how couples experience jealousy is warranted. In a case study of four swinging couples, developing shared boundaries and negotiating rules were important factors for managing jealousy (de Visser & MacDonald, 2007).

Conclusion

It is an exciting time for research on the psychology of sexuality and relationships, and much progress has been made. The growth in this research area was reflected in the publication of the *Handbook on Sexuality and Relationships* several years ago (Harvey, Wenzel, & Sprecher, 2006). A further indication of the wealth of research on sexuality and relationships comes from a search of the PsychINFO database which, in February 2012, listed 5,778 articles, books, chapters and dissertations which combined the thesaurus terms "sexuality" and "relationships" published since 1948, the year in which the first Kinsey book was published. Yet, despite the growth of research in this area as well as its wide appeal, we suggest that not enough of this work focuses on topics and questions truly at the *intersection* of the study of sexuality and relationships. With great eagerness, we look forward to future research on sexuality that considers the various contexts in which relationships are pursued, and similarly, research on close relationships that considers the central role of sexuality in the development and maintenance of intimate bonds.

A couple of recent societal trends are changing the ways in which sexuality is pursued and negotiated across relational contexts, and as such, lead to several critical directions for future research. First, the use of Internet technology and social media has outpaced the research on the influence of new media on relationships and sexuality. Greater connectivity presents new opportunities, such as connecting couples across geographical distance and providing new forums for sexual expression. A recent study documented that more people report engaging in "cybersex" with a romantic partner than without one (Shaughnessy, Byers, & Thornton, 2011), suggesting that Internet technology may create new opportunities for sexual exploration in relationships. In addition, online social networks can connect sexual minority youth and those living in rural areas, and may provide an additional forum for "coming out," social support, and connection. New media may also present new challenges for relationships, such as greater availability of alternate partners and access to relationship-relevant information, which may have implications for relationship satisfaction and stability. An important

future direction will be to learn about the ways that couples use the Internet and social media to benefit their sexual relationships, and how they manage the new challenges that technology may bring.

A second societal change that has important implications for research on the intersection of sexuality and relationships concerns the growing racial and ethnic diversity in North American society. Although relationships both in adolescence and adulthood tend to be racially homogamous (Blackwell & Lichter, 2004), younger adults are the most likely to participate in relationships that cross racial lines (Joyner & Kao, 2005), suggesting that the prevalence of multi-racial and multi-ethnic couples will increase with time. Interracial sexual relationships that are formed in adolescence and young adulthood may influence the subsequent choice of partners later in life, as research has shown that women whose first sexual experience was with a partner of a different race were significantly more likely to be in interracial relationships as adults (King & Bratter, 2007). Further, relationship and sexual practices undoubtedly vary in important ways among racial and ethnic minorities and across the social class spectrum, and these diverse populations and patterns of intimacy present unique opportunities for new research that crosses traditional disciplinary boundaries.

Finally, the nature and process of forming intimate relationships have changed in important ways over the past several decades (see review by Sassler, 2010). The delay of marriage, relationship dissolution, and high divorce rates have all extended the amount of time that adults spend outside of formal marriage. As a result, individuals have a variety of new types of intimate and sexual arrangements from which to choose, including short-term, casual sexual relationships, dating as a way to find long-term partners, and cohabitation either as a precursor to or a substitute for formal marriage. As the options for relational and sexual intimacy continue to expand, so must our approaches to research on what we argue is one of the most dynamic and growing areas of research in psychology today.

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