

---

# Approach and avoidance sexual motives: Implications for personal and interpersonal well-being

---

EMILY A. IMPETT,<sup>a</sup> LETITIA A. PEPLAU,<sup>b</sup> AND SHELLY L. GABLE<sup>b</sup>

<sup>a</sup>*Center for Research on Gender and Sexuality, San Francisco State University and*

<sup>b</sup>*University of California, Los Angeles*

## Abstract

This research provides the first empirical investigation of how approach and avoidance motives for engaging in sex in intimate relationships are associated with personal well-being and relationship quality. A 2-week daily experience study of college student dating couples tested specific predictions from the theoretical model and included both longitudinal and dyadic components. Whereas approach sex motives were positively associated with personal and interpersonal well-being, avoidance sex motives were negatively associated with well-being. Engaging in sex for avoidance motives was particularly detrimental to the maintenance of relationships over time. Perceptions of a partner's motives for sex were also associated with well-being. Implications for the conceptualization of sexuality in relationships along these two dimensions are discussed.

Sexual interactions in young adulthood can be positive forces that bring partners closer and make them feel good about themselves and their relationships. In the National Health and Social Life Survey (NHSL), 78% of participants in monogamous dating relationships reported being either extremely or very pleased with their sexual relationship (Laumann, Gagnon, Michael, & Michaels, 1994). For instance, when asked to rate specific feelings they experienced after engaging in sex, a majority of the participants reported positive feelings (i.e., “felt loved,” “thrilled,”

“wanted,” or “taken care of”). More generally, feelings of satisfaction with the sexual aspects of an intimate relationship contribute to overall relationship satisfaction and stability over time (e.g., Sprecher, 2002; see review by Sprecher & Cate, 2004). In short, sexual interactions can be potent forces that sustain and enhance intimate relationships.

For some individuals and under certain circumstances, however, sexual interactions can be anything but positive and rewarding. They may create emotional distress, personal discontent, and relationship conflict. For instance, in the NHSL, a sizable minority of respondents in dating relationships indicated that sex with an exclusive partner made them feel “sad,” “anxious and worried,” “scared and afraid,” or “guilty” (Laumann et al., 1994). Negative reactions to sex may stem from such diverse sources as prior traumatic or coercive experiences in relationships, feeling at a power disadvantage in one's current relationship, or discrepancies in sexual desire between partners, to name a few (e.g., Davies, Katz, & Jackson, 1999; Muehlenhard & Schrag, 1991).

---

The studies reported here were based on Emily A. Impett's dissertation. Preparation of this article was supported by a fellowship awarded to the first author from the Sexuality Research Fellowship Program of the Social Science Research Council with funds provided by the Ford Foundation. We thank Katie Bishop, Renee Delgado, and Laura Tsang for their assistance with data collection and Andrew Christensen, Terri Conley, Martie Haselton, and Linda Sax for comments on an earlier version of this manuscript.

Correspondence should be addressed to Emily A. Impett, Center for Research on Gender and Sexuality, San Francisco State University, 2017 Mission Street #300, San Francisco, CA 94110, e-mail: eimpett@sfsu.edu.

In this research, we sought to understand why individuals experience such differing reactions to sex, by presenting a new theoretical perspective on sexuality in intimate relationships. In this paper, an approach-avoidance motivational analysis of sexuality is adopted, such that the consequences of sexual interactions depend on the motives that guide individuals' decisions to engage in sex with an intimate partner. The central thesis of this paper is that the personal and interpersonal consequences of sexual interactions depend—at least in part—on the motives that underlie an individual's decision to engage in sexual activity. In this paper, we begin by reviewing previous research on sexual motivation. Next, we introduce the approach-avoidance theoretical framework adopted in this research and apply this framework to sexual motivation. Then, we present results from a 2-week daily experience study designed to test specific predictions from the theoretical model about when sexual interactions are beneficial and when they are costly for individuals and their relationships.

### Sexual Motivation

Early behavioral approaches to the study of human sexuality largely ignored the motivational underpinnings of sexual behavior (e.g., Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953). Those that attempted to address the role of motivation often presented a simplistic, biologically oriented view that focused primarily on an inborn drive for orgasmic release (e.g., Masters & Johnson, 1966), a position that was consistent with popular drive-reduction theories of the time (cf. Heckhausen, 1991). More recently, motivational theorists have broadened their scope to include a variety of incentives that are external to the individual, and in particular, factors specific to intimate relationships (e.g., Basson, 2001, 2003).

Numerous empirical studies have documented a range of reasons for interest in sex in addition to the pursuit of physical or sexual pleasure. These include the desires to reproduce, to please one's partner, to promote intimacy in a valued relationship, to relieve sexual tension, to gain sexual experience, to prevent

relationship conflict, to experience a sense of conquest, and to impress one's peers (e.g., Carroll, Volk, & Hyde, 1985; Denney, Field, & Quadagno, 1984; Hatfield, Sprecher, Pillemer, Greenberger, & Wexler, 1989; Hill & Preston, 1996; Leigh, 1989). Recent research on sexual compliance, that is, the willingness to freely engage in undesired sex, also highlights the diversity of motives served by sex other than the pursuit of physical or sexual pleasure (see review by Impett & Peplau, 2003). For instance, in an illustrative study of college women in dating relationships, common motives for compliant sex included wanting to satisfy a partner's needs, to promote intimacy in the relationship, to avoid tension, and to prevent a partner from losing interest in the relationship (Impett & Peplau, 2002). In short, there is a growing body of research documenting the variety of motives served by sexual interactions.

### An Approach-Avoidance Analysis of Sexual Motivation

The main limitation to the existing research on sexual motivation is that it lacks a conceptual or theoretical framework. The current study seeks to provide a framework for understanding the diverse motives for sex, as well as the consequences of engaging in sex in pursuit of different motives.

#### *The approach-avoidance framework*

Several theories of motivational processes postulate the existence of distinct approach (also called appetitive) and avoidance (also called aversive) motivational systems (see reviews in Carver, Sutton, & Scheier, 2000; Elliot & Covington, 2001). For instance, Gray's (1987) neuropsychological model of motivation posits independent appetitive and aversive motivational systems, referred to as the behavioral approach system (BAS) and the behavioral inhibition system (BIS) (see also Carver & White, 1994). Specifically, the BAS is an appetitive system that motivates behavior in response to signals of reward, while the BIS is an aversive system that motivates behavior in response to signals of punishment. Higgins' (1998) theory of regulatory

focus also distinguishes between two independent forms of self-regulation, one focused on the promotion (attainment) of positive end states, and the other focused on the prevention (avoidance) of negative end states. Elliot and colleagues have also distinguished between approach and avoidance goals in the domains of personal strivings (Elliot & Sheldon, 1997) and academic achievement (Elliot & Church, 1997).

Approach and avoidance motivational systems have been shown to be relatively independent from each other, suggesting that individuals with strong approach tendencies do not necessarily possess weak avoidance motives, and vice versa (e.g., Gray, 1987). Much of the data supporting the functional independence of these two systems focuses on neural mechanisms. For example, Sutton and Davidson (1997) used electroencephalographic technology to investigate the utility of BIS and BAS scores in predicting resting prefrontal asymmetry. Whereas participants with higher BAS scores showed more relative left prefrontal activation, those with higher BIS scores showed more relative right prefrontal activation. On the basis of these and other findings, Davidson and colleagues have suggested that approach and avoidance are managed by two separate neural systems (e.g., Davidson, Ekman, Saron, Senulis, & Friesen, 1990).

The distinction between approach and avoidance motives has implications for understanding both personal and interpersonal well-being. In terms of emotions, Carver and Scheier (1990, 1998) outlined two independent dimensions of affective experience, one managing approach behavior (and ranging from elation to depression) and the other managing avoidance behavior (and ranging from fear to relief). In a study of motivational dispositions and daily events, Gable, Reis, and Elliot (2000) found that participants with higher BAS sensitivity reported experiencing more daily positive affect (PA; but not less negative affect [NA]) than those with lower BAS sensitivity, whereas participants with higher BIS sensitivity reported experiencing more daily NA (but not less PA) than those with lower BIS sensitivity. In terms of health, approach motives are associated with greater life optimism, higher

subjective well-being, and lower depression (Coats, Janoff-Bulman, & Alpert, 1996; Elliot, Sheldon, & Church, 1997). In contrast, avoidance goals are associated with more physical symptom reports, both prospectively and retrospectively (Elliot & Sheldon, 1997).

In terms of interpersonal well-being, Gable (in press) has recently shown that approach and avoidance motives predict different social outcomes. In three short-term longitudinal studies, approach social motives and goals were linked to outcomes characterized by the presence or absence of positive social features (e.g., more satisfaction with social bonds and less loneliness), and avoidance social motives and goals were linked to outcomes characterized by the presence or absence of negative social features (e.g., more negative social attitudes and greater relationship insecurity). In short, behaviors undertaken in pursuit of different motives have important implications for understanding both personal and interpersonal well-being (Snyder & Cantor, 1997).

#### *Applying the framework to sexuality*

The present research examined sexual interactions in dating couples from an approach-avoidance motivational perspective. In the realm of sexuality, approach motives focus on obtaining positive outcomes such as one's own physical pleasure, a partner's happiness, or enhanced intimacy in the relationship. Avoidance motives, in contrast, focus on evading negative outcomes such as one's own sexual frustration, a partner's loss of interest in the relationship, or conflict in the relationship. The approach-avoidance motivational framework has rarely been applied to the study of human sexuality, and when it has, it has focused on understanding risky sexual behavior, rather than personal well-being or relationship quality (Cooper, Shapiro, & Powers, 1998; Strachman, Marelich, Fingerhut, & Gable, 2004). The following section considers possible ways in which approach and avoidance sex motives may influence both personal and interpersonal well-being.

*Sex motives and personal well-being.* People may have different emotional experiences if

they engage in sex in pursuit of different motives. For instance, engaging in sex for approach motives such as to pursue physical pleasure may, in many cases, be experienced as inherently rewarding. Further, having sex to please one's partner may lead to increased satisfaction and PA through the process of empathic identification (e.g., Blau, 1964; Lerner, Miller, & Holmes, 1976). Engaging in sex for avoidance motives such as to avert relationship conflict, prevent a partner's disappointment, or cope with one's own negative emotions may at best lead to relief and at worst produce the very anxiety and tension that an individual was trying to avoid (Downey, Freitas, Michaelis, & Khouri, 1998). In a recent pilot study (Impett, 2002), engaging in sex because "it feels good" and "to express love for a partner" (approach motives) were associated with subsequent feelings of excitement, love, and passion. In contrast, having sex "to cope with negative emotions" and "to prevent my partner from becoming angry at me" were associated with subsequent feelings of anger, shame, and fear.

#### *Sex motives and interpersonal well-being.*

People may feel differently toward their partners and their relationships depending on whether they engage in sex for approach or avoidance motives. For example, a man who engages in sex to make his partner feel good (an approach motive) may subsequently feel closer to her and more satisfied in his relationship, knowing that he has responded to her in a loving manner. In contrast, a man who engages in sex to avoid disappointing his partner (an avoidance motive) may feel resentment or other negative emotions that detract from his satisfaction in the relationship. A recent pilot study showed that engaging in sex to satisfy a dating partner's needs was associated with higher relationship satisfaction, whereas engaging in sex to avoid tension and to prevent a partner from losing interest in the relationship were associated with less relationship satisfaction (Impett, 2002).

*Perceptions of a partner's sex motives.* Partners often engage in an attributional analysis in order to understand the meaning of each other's actions (Rusbult & Van Lange, 1996). Perceiv-

ing that one's partner has engaged in sex for approach versus avoidance motives may be differentially associated with well-being. For example, a woman who believes that her boyfriend is having sex with her to enhance intimacy (an approach motive) may feel satisfied that he has responded to her in a pleasant and loving manner. On the other hand, if she thinks that he is having sex to avoid an argument (an avoidance motive), she may feel unhappy and experience decreased satisfaction in the relationship because she perceives his concern about negative outcomes. In order to more fully understand the effects of sexual interactions on intimate relationships, both *motive expression* (one person's motives for sex) and *motive attribution* (one person's perceptions of a partner's motives) need to be taken into account.

*Gender and sex motives.* Much of the existing research on sexual motivation has been guided by a perspective that focuses on documenting and understanding gender differences in motives for sex (see review by Impett & Peplau, in press). Across numerous studies, men report being more likely to desire sex for physical gratification, while women report being more likely to desire sex in order to promote intimacy and to gain approval from a partner (Carroll et al., 1985; Cooper et al., 1998; Denney et al., 1984; Hatfield et al., 1989; Hill, 1997; Hill & Preston, 1996; Leigh, 1989; Michael, Gagnon, Laumann, & Kolata, 1994). Although not the main focus of this study, a secondary goal was to examine possible gender differences in specific motives for sex and, more generally, in approach versus avoidance motives for sex.

#### **Overview of the Current Research**

The current daily experience study provided the first empirical test of how approach and avoidance sex motives are associated with day-to-day personal and interpersonal well-being. One member of each dating couple completed a brief survey for 14 consecutive nights. The daily surveys included questions about sexual interactions, sexual motives, personal well-being, and interpersonal well-being.

In addition to the daily data, there was an initial assessment of relationship quality, a 6-week follow-up to assess the longer term relationship consequences of engaging in sex for approach and avoidance motives, and a questionnaire sent home to each participant's partner to assess the association between perceptions of a partner's sex motives and both personal and interpersonal well-being. Hypotheses concerning daily experiences, longitudinal outcomes, and partner experiences are outlined below.

#### *Hypotheses about daily experiences*

1. On a given day, participants who report increases in sex for approach motives (compared to their own mean) will report higher satisfaction with life (SWL), higher PA, greater relationship well-being (i.e., satisfaction, closeness, and fun), and less relationship conflict.
2. On a given day, participants who report increases in sex for avoidance motives (compared to their own mean) will report lower SWL, higher NA, poorer relationship well-being (i.e., less satisfaction, closeness, and fun), and more relationship conflict.

#### *Hypotheses about longer term outcomes*

3. Increased sex for approach motives during the course of the study will be associated with increased relationship satisfaction and a decreased likelihood of breaking up by the 1-month follow-up.
4. Increased sex for avoidance motives during the course of the study will be associated with decreased relationship satisfaction and an increased likelihood of breaking up by the 1-month follow-up.

#### *Hypotheses about the partner's experiences*

5. Perceiving that one's partner engages in sex for approach motives will be associated with higher PA, higher SWL, and greater relationship satisfaction, as well as a decreased likelihood of breaking up by the 1-month follow-up.

6. Perceiving that one's partner engages in sex for avoidance motives will be associated with higher NA, lower SWL, and lower relationship satisfaction, as well as an increased likelihood of breaking up by the 1-month follow-up.

## **Method**

### *Participants and procedure*

One hundred twenty-four undergraduate participants at the University of California, Los Angeles, began the study, and 121 (55 men and 66 women) completed a minimum of three daily assessments on time. They received credit toward psychology coursework in exchange for participation. Participants ranged in age from 18 to 38 years ( $M = 20.2$ ,  $SD = 2.6$ ). The sample was ethnically diverse: 5% were African American, 36% were Asian or Pacific Islander, 15% were Hispanic, 37% were White, and 7% self-identified as multiethnic or "other." All participants were currently involved in a dating relationship ( $M_{\text{LENGTH}} = 1$  year 6 months), saw their partners at least 5 days per week (i.e., no long-distance relationships), and engaged in sexual intercourse at least one time during the 14-day period.<sup>1</sup> In addition, all participants identified as heterosexual, except for one gay man, and he was included in the study.

During an initial session, each participant was given 14 booklets, each containing the daily measures, 1 for each night of the week. A researcher then reviewed the procedures for completion of the daily logs, specifically emphasizing that participants should begin completing their logs that evening, that they should complete one log each night before going to bed (even if they do not engage in sex on that particular day), that their responses

---

1. Participants who engaged in sexual activity at least once during the 14-day period were selected from a larger pool of participants recruited for a study of sacrifice in dating relationships (Impett, Gable, & Peplau, in press); thus, the participants in this study were not recruited based on their sexual experiences.

were confidential, that they should not discuss their logs with their partners,<sup>2</sup> and that if they missed a day, they should leave that particular log blank.

To bolster and verify compliance with the daily schedule, participants were asked to return completed logs every 2–3 days to a locked mailbox located outside the laboratory. As an incentive, each time participants handed in a set of logs on time, they received a lottery ticket for one of several cash prizes (\$100, \$50, \$25) to be awarded after the study. Participants who did not return a particular set of logs on time were reminded by phone or e-mail. Only daily logs returned on time were treated as valid and retained in the data set. In total, participants completed 1,549 daily logs on time, an average of 12.8 days per person. Ninety percent of the participants completed all 14 daily reports on time.

All participants were asked to return on the day after they completed their final log (i.e., day 15) for an “exit” session. During this session, they handed in their last two or three daily logs, completed a short questionnaire about their experiences in the study, and were asked to take a short questionnaire to their partners to be completed privately at home and mailed back in exchange for a \$5 payment. Eighty percent of the participants’ partners initially agreed to complete the take-home survey, and of those, 88% mailed their surveys back within 1 week.<sup>3</sup> In total, 70% ( $N = 84$ ) of the partners completed the survey in a timely manner. Participants whose partners completed the survey and

participants whose partners did not complete the survey did not differ significantly on any of the aggregated measures of personal or interpersonal well-being in the daily experience study. The partners ranged in age from 16 to 41 years ( $M = 20.7$ ,  $SD = 3.6$ ). The sample was ethnically diverse: 2% were African American, 35% were Asian or Pacific Islander, 14% were Hispanic, 42% were White, and 7% self-identified as multiethnic or “other.”

Additionally, 1 month after their exit session, participants were sent a short e-mail survey with questions about their current relationship status and satisfaction. Of the 121 original participants, 87% ( $N = 105$ ) responded to the follow-up e-mail survey sent 1 month after completion of the daily experience study. Participants who completed the follow-up and participants who did not complete the follow-up did not differ significantly on the baseline measures of commitment or relationship satisfaction. Of the 105 participants who responded to the follow-up, 13 (12%) indicated that they had broken up with their partners in the month after their exit session.<sup>4</sup>

### *Background measures*

In their initial session in the laboratory, participants completed a questionnaire with basic demographic information (i.e., gender, age, ethnicity, relationship duration), as well as baseline measures of commitment and relationship satisfaction (Rusbult, Martz, & Agnew, 1998). Participants responded to such statements as “I want our relationship to last for a very long time” (commitment) and “Our relationship makes me happy” (satisfaction) on 9-point scales (0 = *do not agree at all* to 8 = *agree completely*). In this sample,  $\alpha = .94$  for commitment, and  $\alpha = .89$  for satisfaction.

### *Daily measures*

Each daily log contained two sections. The first section assessed several aspects of daily personal and interpersonal well-being. The

2. Because we only accepted and treated as valid partner questionnaires that were mailed to us within 1 week of their distribution, there was a great deal of overlap in the time period for the participant data and the partner data, although it was not perfect.

3. In dyadic research, it is extremely difficult to prevent participants from discussing the nature of the study or their responses to survey questions with their partners. During the initial session in the daily experience study, special care was taken to emphasize the private nature of the daily questions and to discourage participants from discussing the details of the study with their partners. In the exit session, 87% of participants indicated that they discussed the study with their partners either “rarely” or “not at all.” All analyses reported in this paper that include responses from partners control for the amount of time participants indicated that they talked to their partners during the course of the 2-week study.

4. None of the participants had relationships that ended during the 14-day study.

second section contained questions about sexual interactions that day, if any.

*Well-being.* The 20-item Positive and Negative Affect Scale (PANAS) (Watson, Tellegen, & Clark, 1988) was used to measure daily PA and NA. Participants were instructed to answer the questions according to “how you felt today.” The average within-person reliability coefficients were .95 for PA and .94 for NA. Subjective well-being was assessed with a five-item Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) and was modified to refer to how participants felt that day. The average within-person alpha for this scale was .95. Four items assessed relationship well-being. On 7-point scales, participants responded to the following questions: “How close did you feel to your partner today?”; “How satisfied with your relationship were you today?”; “How fun was your relationship today?”; and “How much conflict did you experience in your relationship today?”

*Sexual behavior and motives.* Participants were asked, “Have you engaged in sexual activity with your partner since the last time you completed a daily survey?” If yes, they indicated the time that they engaged in sex and who initiated sexual activity on a 7-point scale (1 = *I did*, 4 = *both equally*, 7 = *my partner did*). Participants also indicated their own level of sexual desire during the sexual interaction on a 7-point scale (1 = *very low*, 4 = *moderate*, 7 = *very high*). They also responded to a nine-item measure of sex motives adapted from previous research on sexual motivation (e.g., Cooper et al., 1998; Impett & Peplau, 2002) that captured a range of different reasons for engaging in sexual activity with an intimate partner. Participants rated the importance of five approach and four avoidance motives in influencing their decisions to engage in sex on 7-point scales (1 = *not at all important* to 7 = *extremely important*). The approach items were “To pursue my own sexual pleasure,” “To feel good about myself,” “To please my partner,” “To promote intimacy in my relationship,” and “To express love for my partner.” The avoidance items were “To avoid conflict in my relation-

ship,” “To prevent my partner from becoming upset,” “To prevent my partner from getting angry at me,” and “To prevent my partner from losing interest in me.” In the current study, a two-factor-solution principal components analysis with varimax rotation explained 61% of the scale variance. The first factor (34% of explained variance) included the four avoidance motive items, and the second factor (24% of explained variance) included the five approach motive items. Mean scores for each motive subscale were computed, with higher scores reflecting higher levels of sex for approach and avoidance motives. The average within-person reliability coefficients over the 14-day study were .71 for approach motives and .90 for avoidance motives.

#### *Follow-up measures*

One month after the end of the daily experience study, participants were sent a short e-mail survey inquiring about their current relationship status (i.e., broken up vs. still together) and relationship satisfaction if still together (Rusbult et al., 1998). In this sample,  $\alpha = .93$  for follow-up relationship satisfaction.

#### *Partner measures*

The survey sent to each participant’s partner to be completed privately at his or her home contained two sections. As described below, the first section of the survey contained measures of personal and interpersonal well-being, including positive and negative affect, SWL, and relationship satisfaction. The second section contained questions about sexual interactions during the previous 2 weeks, if any.

*Well-being.* PA and NA were again assessed with the 20-item PANAS (Watson et al., 1988), with participants indicating the extent to which they felt each of the emotions during the previous 2 weeks ( $\alpha = .83$  for positive emotion,  $\alpha = .80$  for negative emotion). Subjective well-being was assessed with the Diener et al. (1985) Satisfaction with Life Scale ( $\alpha = .85$ ). Relationship satisfaction was assessed with the Rusbult et al. (1998) measure described above ( $\alpha = .90$ ).

*Sexual behavior and motives.* Partners were asked, "Did you engage in sexual activity with your partner at least once in the past two weeks?" If yes, they responded to the same nine-item measure of sex motives given to the participants in the daily experience study, indicating how often they think their partners engaged in sex with them for each of the reasons on 7-point scales (1 = *never*, 4 = *about half the time*, 7 = *always*). The five-item approach motives subscale had an alpha of .72, and the four-item avoidance motives subscale had an alpha of .88.

## Results and Discussion

### *Sexual frequency and motives*

On average, participants reported engaging in sexual activity on 4 days during the 2-week study ( $SD = 2.3$ ; range = 1–10 days). On the whole, participants engaged in sex much more frequently for approach motives ( $M = 5.10$ ,  $SD = .94$ ) than for avoidance motives ( $M = 1.63$ ,  $SD = .94$ ),  $t(120) = 30.72$ ,  $p < .001$ , a finding that is consistent with research on motivation in sexuality and other domains (Cooper et al., 1998; Elliot & Church, 1997; Gable, in press). In line with prior empirical research showing that approach and avoidance motivational tendencies are relatively independent, there was no association between approach and avoidance sex motives either within days,  $r(479) = .06$ ,  $p = .22$ , or within persons,  $r(121) = .13$ ,  $p = .16$ . In short, individuals who reported high levels of approach sex motives did not necessarily report low (or high) levels of avoidance sex motives, and vice versa.

### *Analyses of sex motives and personal well-being*

A central goal of this study was to test predictions about the daily associations between sex motives and personal well-being during the 14-day study. Traditional analysis of variance methods assume independence of observations, a criterion that is clearly violated when the same individual completes the same measures repeatedly over several days. Therefore, the data were analyzed using hierarchical lin-

ear modeling (HLM) techniques (HLMwin v. 5.02; Raudenbush, Bryk, Cheong, & Congdon, 2000). HLM provides independent estimates of the associations among constructs at the lower level (within persons) and models them at the upper level (between persons) as a random effect using maximum likelihood estimation. A strength of HLM techniques is that they can readily handle an unbalanced number of cases per person (i.e., number of diaries provided or number of days on which individuals engaged in sex), giving greater weighting to participants who provide more data (Reis & Gable, 2000; Snijders & Bosker, 1999).

A series of HLM equations was constructed to examine the lower level, within-person associations between PA, NA, and SWL on the one hand, and approach sex motives (APPROACH) and avoidance sex motives (AVOID) on the other. For example, the equation testing the association between SWL and approach and avoidance sex motives was as follows:

$$\text{SWL}_{ij} = b_{0j} + b_{1j}(\text{APPROACH}) + b_{2j}(\text{AVOID}) + r_{ij}$$

In this equation,  $b_{0j}$  refers to the intercept (i.e., the person's PA on his or her average day),  $b_{1j}$  represents the slope between SWL and APPROACH,  $b_{2j}$  represents the slope between SWL and AVOID, and  $r_{ij}$  represents error. Approach and avoidance sex motives were both centered around each person's mean; therefore,  $b_{1j}$  and  $b_{2j}$  represent the degree to which an individual's approach and avoidance motives on the  $i$ th day deviated from his or her average level of approach and avoidance motives. Thus, person  $j$ 's SWL on the  $i$ th day was predicted from his or her average SWL, approach motives (on the  $i$ th day) weighted by its coefficient ( $b_{1j}$ ), avoidance motives (on the  $i$ th day) weighted by its coefficient ( $b_{2j}$ ), and error. Although not depicted in the equation above, each of the analyses controls for gender, relationship duration, satisfaction, and commitment.

Table 1 reports maximum likelihood estimates relating the measures of personal well-being (i.e., PA, NA, and SWL) to approach and avoidance sex motives. For example, the coefficient for the association between

**Table 1.** Associations between daily sex motives and measures of personal and interpersonal well-being

Predictor	Unstandardized HLM coefficients						
	Outcome						
	PA	NA	SWL	SAT	CLOSE	FUN	CONFLICT
APPROACH	0.16**	-0.03	0.28**	0.35***	0.35***	0.50***	-0.33*
AVOID	-0.03	0.16**	-0.09	-0.17*	-0.17*	-0.21*	0.23*

Note. *n* = 121. The analysis with PA as an outcome controls for NA and vice versa. HLM = hierarchical linear modeling; APPROACH = approach sex motives; AVOID = avoidance sex motives; PA = positive affect; NA = negative affect; SWL = satisfaction with life; SAT = relationship satisfaction; CLOSE = closeness; FUN = fun in the relationship; CONFLICT = relationship conflict.

\**p* < 0.05. \*\**p* < 0.01. \*\*\**p* < 0.001.

approach motives and SWL (first row of numbers, third column of numbers) can be interpreted as follows: Each unit increase in approach motives (i.e., engaging in sex for approach motives on that day that are one unit more than one’s own average) was associated with a .28-unit increase in SWL on that day.

The results show, as predicted, that approach sex motives were significantly and positively related to daily PA and SWL but were not associated with NA. In other words, on days when participants reported increases in approach sex motives, they reported higher PA and SWL. In contrast, avoidance sex motives were significantly related to NA, were not associated with PA, and, contrary to expectations, were not associated with life satisfaction. It is important to note that because approach and avoidance motives were entered simultaneously into the HLM equations, the effects for approach motives control for the avoidance motives and vice versa. This means that individuals who engage in sex for both approach and avoidance motives on any one occasion may experience both increased and decreased well-being (e.g., a person may experience not only more PA but also more NA). In this way, these daily analyses allow for the possibility that individuals can engage in sex for multiple motives on any one occasion.

*Analyses of sex motives and interpersonal well-being*

A second goal of this study was to test hypotheses concerning the daily associations between

sex motives and interpersonal well-being during the 14-day study. Lower level equations tested the within-person association between relationship satisfaction (SAT), closeness (CLOSE), fun (FUN), and conflict (CONFLICT) on the one hand, and approach sex motives (APPROACH) and avoidance sex motives (AVOID) on the other. For example, the equation testing the association between relationship satisfaction and approach and avoidance sex motives is as follows:

$$SAT_{ij} = b_{0j} + b_{1j}(APPROACH) + b_{2j}(AVOID) + r_{ij}$$

Table 1 reports maximum likelihood estimates relating the measures of interpersonal well-being to approach and avoidance sex motives. As predicted, approach sex motives were significantly and positively related to satisfaction, closeness, and fun and were negatively related to conflict in the relationship. Avoidance sex motives, in contrast, were positively associated with conflict and negatively associated with satisfaction, closeness (although this effect was marginal), and fun in the relationship. In other words, on days when participants reported increases in approach sex motives, they reported greater satisfaction, closeness, and fun and reported less conflict in their relationships. In contrast, on days when participants reported increases in avoidance sex motives, they reported less satisfaction, closeness, and fun and more relationship conflict. As was the case for the analyses of personal well-being, each of these

analyses controls for gender, relationship duration, satisfaction, and commitment.

### *Analyses of alternative hypotheses*

There are at least two alternative hypotheses to those presented in this research. First, it is possible that sexual desire is a better predictor of well-being than motives for sex. That is, sexual interactions experienced with a great deal of sexual desire may be more emotionally and interpersonally rewarding, regardless of the reasons why an individual pursues sex. The converse may be true for interactions in which an individual has lower levels of sexual desire. Second, the frequency with which couples engage in sex may be a more powerful predictor of well-being than motives for sex. In other words, regardless of their motives for doing so, the more often individuals engage in sex, the better they may feel both personally and in their relationships. This alternative hypothesis is consistent with research documenting an association between frequency of sexual activity and relationship quality (e.g., Call, Sprecher, & Schwartz, 1995). According to the ideas presented in this paper, however, sex motives should be associated with well-being, even after accounting for possible effects of sexual desire or the frequency with which couples engage in sex.

*Desire for sex versus motives for sex.* In the following analyses, an individual's level of

sexual desire during the sexual interaction (DESIRE) was controlled in order to test the idea that sex motives have unique and independent effects on well-being above and beyond the amount predicted by sexual desire. For each of the lower level equations presented above, DESIRE was included as an additional predictor. For example, the equation testing the association between SWL and sex motives (APPROACH and AVOID), controlling for DESIRE, was as follows:

$$SWL_{ij} = b_{0j} + b_{1j}(\text{APPROACH}) + b_{2j}(\text{AVOID}) + b_{3j}(\text{DESIRE}) + r_{ij}$$

Table 2 reports the maximum likelihood estimates relating approach and avoidance sex motives to each of the measures of well-being, controlling for an individual's level of sexual desire during sex. As predicted, sexual desire was not associated with any of the measures of well-being (all  $ps > .05$ ). Further, with the exception of relationship closeness, approach and avoidance sex motives remained strong and significant predictors of each measure of well-being, even after controlling for sexual desire.

*Frequency of sex versus motives for sex.* In the following analyses, the percentage of days on which an individual engaged in sex (FREQ) was controlled in order to test the idea that sex motives have unique and independent effects on well-being above and beyond the amount

**Table 2.** Associations between daily sex motives and measures of well-being, controlling for sexual desire

Predictor	Unstandardized HLM coefficients						
	PA	NA	SWL	SAT	CLOSE	FUN	CONFLICT
APPROACH	0.20**	-0.14*	0.28**	0.33***	0.28**	0.42***	-0.33*
AVOID	-0.08	0.20***	-0.06	-0.11†	-0.06	-0.17*	0.21*
DESIRE	-0.01	0.06	0.01	0.09	-0.02	0.16	0.02

*Note.*  $n = 121$ . The analysis with PA as an outcome controls for NA and vice versa. HLM = hierarchical linear modeling; APPROACH = approach sex motives; AVOID = avoidance sex motives; DESIRE = sexual desire; PA = positive affect; NA = negative affect; SWL = satisfaction with life; SAT = relationship satisfaction; CLOSE = closeness; FUN = fun in the relationship; CONFLICT = relationship conflict.

† $p < 0.07$ . \* $p < 0.05$ . \*\* $p < 0.01$ . \*\*\* $p < 0.001$ .

**Table 3.** Associations between sex motives and measures of well-being, controlling for frequency of sex

Predictor	Unstandardized HLM coefficients <sup>a</sup>						
	PA	NA	SWL	SAT	CLOSE	FUN	CONFLICT
APPROACH	0.17**	-0.06	0.28**	0.35***	0.35***	0.49***	-0.32*
AVOID	-0.03	0.17**	-0.07	-0.13**	-0.13†	-0.18*	0.21*
FREQ	0.15	0.02	0.08	0.01	0.02	0.06	-0.13

Note. *n* = 121. The analysis with PA as an outcome controls for NA and vice versa. HLM = hierarchical linear modeling; APPROACH = approach sex motives; AVOID = avoidance sex motives; FREQ = the percentage of days on which participants engaged in sex; PA = positive affect; NA = negative affect; SWL = satisfaction with life; SAT = relationship satisfaction; CLOSE = closeness; FUN = fun in the relationship; CONFLICT = relationship conflict.

<sup>a</sup>The HLM coefficients for sexual frequency are standardized to aid in the interpretation of results.

†*p* < .07. \**p* < 0.05. \*\**p* < 0.01. \*\*\**p* < 0.001.

predicted by sexual frequency.<sup>5</sup> For each of the lower level equations tested above, FREQ was entered as an upper level (between persons) predictor. For example, the lower level (within person) equation for SWL was as follows:

$$SWL_{ij} = b_{0j} + b_{1j}(\text{APPROACH}) + b_{2j}(\text{AVOID}) + r_{ij}$$

The upper level (between persons) equation for SWL was as follows:

$$b_{0j} = g_{00} + g_{01}(\text{FREQ}) + u_{0j}$$

Table 3 reports the maximum likelihood estimates relating approach and avoidance sex motives to each of the measures of well-being, controlling for sexual frequency. As predicted, sexual frequency was not associated with any of the measures of well-being (all *ps* > .05). Further, with the exception of relationship closeness (which was only marginally significant at *p* < .07), approach and avoidance sex motives remained strong and significant predictors of each of the measures of well-being, even after controlling for sexual frequency.

*Analyses regarding gender*

Another goal of the current study was to examine possible gender differences in the nine specific motives for sex, as well as gender differences in approach and avoidance motives more generally. In the following analyses, gender (*male* = 0; *female* = 1) was entered as an upper level (between persons) predictor of each daily sex motive. For example, the lower level and upper level equations for approach motives were as follows:

$$\text{APPROACH}_{ij} = b_{0j} + r_{ij}$$

$$b_{0j} = g_{00} + g_{01}(\text{GENDER}) + u_{0j}$$

The results of the HLM analyses revealed no significant differences in the extent to which men and women engaged in sex for approach or avoidance motives on a day-to-day basis (both *ps* > .05). Further, of the nine specific motives for sex, only one revealed a significant gender difference. Specifically, women were more likely than men to indicate that they engaged in sex to express love for their partner (unstandardized HLM coefficient = .73, *p* = .001). It is interesting that men were no more likely than women to indicate that they engaged in sex to pursue their own physical pleasure, a finding that is inconsistent with previous research. Possible reasons for this finding include the daily nature of data

5. For the analyses that controlled for sexual frequency, we used a percentage score rather than a raw frequency score to account for the fact that not every participant turned in a diary on each of the 14 days. In addition, sexual frequency was entered as a standardized variable to aid in the interpretation of results.

collection (i.e., perhaps retrospectively, men and women recall motives that are more consistent with gender stereotypes) or the fact that all of the participants in this study were currently involved in ongoing dating relationships (i.e., perhaps men engage in sex to pursue physical pleasure more often than women in casual but not in established relationships).

#### *Analyses of sex motives and well-being over time*

A further goal of this research was to go beyond the daily association of sex motives and well-being to consider the possible longer term associations between motives and relationship quality and stability. It was hypothesized that having sex for approach motives during the course of the 2-week study would predict greater relationship satisfaction and fewer break-ups at the 1-month follow-up. Conversely, having sex for avoidance motives would predict lower relationship satisfaction and more break-ups. To test these predictions, data were aggregated across days such that each person received summary scores for both approach and avoidance sex motives. Two regression equations were constructed. The first equation used linear regression; initial relationship satisfaction was entered on the first step, and scores for both approach and avoidance sex motives were entered on the second step to predict relationship satisfaction at the 1-month follow-up. The second equation used logistic regression; initial commitment was entered on the first step, and approach and avoidance motives were entered on the second step to predict relationship status (*broken up* = 0; *still together* = 1) at the follow-up. Initial commitment was controlled for when predicting relationship status because previous research has shown that commitment (and not satisfaction) is the critical and most proximal predictor of stay/leave behavior (see review by Rusbult & Van Lange, 1996). Approach and avoidance motives were entered simultaneously in these equations to examine their unique associations with longer term relationship quality.

The hypothesis that approach sex motives would predict increases in relationship satis-

faction and greater couple persistence over time was not supported. Although approach sex motives were correlated with initial relationship satisfaction ( $r = .34, p < .001$ ) and follow-up satisfaction ( $r = .27, p < .01$ ), approach motives no longer predicted follow-up satisfaction after controlling for initial satisfaction ( $\beta = .07, p = .42$ ). Further, approach motives did not predict relationship status at the 1-month follow-up after controlling for initial commitment (odds ratio [OR] = .90; 95% CI = .38, 2.13;  $p = .81$ ).

In contrast, the hypothesis that avoidance motives would predict decreases in relationship satisfaction and more break-ups over time received strong support. Avoidance sex motives were negatively correlated with initial relationship satisfaction ( $r = -.21, p < .05$ ) and follow-up satisfaction ( $r = -.31, p < .01$ ). Further, after controlling for their initial relationship satisfaction, the more often participants engaged in sex for avoidance motives over the course of the 2-week study, the lower their follow-up satisfaction ( $\beta = -.26, p < .001$ ). When avoidance motives were entered by themselves in the regression equation (without approach motives), they accounted for a significant increase in the variance in follow-up satisfaction,  $\Delta R^2 = .03, F_{\text{CHANGE}}(1, 83) = 4.81, p < .05$ , after controlling for initial satisfaction. Avoidance motives also predicted relationship status at the 1-month follow-up after controlling for initial commitment. That is, for each unit increase in avoidance motives, participants were more than 2.5 times as likely to have broken up by the 1-month follow-up (OR = 2.60; 95% CI = 1.48, 4.56;  $p < .001$ ).<sup>6</sup>

#### *Analyses of partners' experiences*

A final set of analyses used the data from the participants' partners. The first analysis tested

6. It should be noted that analyses performed on the relationship status (together/broken up) variable are relatively conservative. Only 13 relationships ended between the initial session and the follow-up, so estimates for the group with participants who broke up are based on a small number of participants and therefore may be less reliable and less stable than would be the case if the sample were larger.

**Table 4.** Associations between perceived sex motives and well-being, controlling for frequency of sex

Predictor	Standardized beta coefficients			
	Outcome			
	PA	NA	SWL	SAT
AP <sub>PER</sub>	0.47**	-0.01	0.41**	0.30*
AV <sub>PER</sub>	-0.17	0.24*	-0.39**	-0.26*
FREQ	0.25*	0.03	0.14	0.03

Note. *n* = 78. AP<sub>PER</sub> = perceived approach sex motives; AV<sub>PER</sub> = perceived avoidance sex motives; FREQ = the percentage of days engaged in sex; PA = positive affect; NA = negative affect; SWL = satisfaction with life; SAT = relationship satisfaction.  
\**p* < 0.05. \*\**p* < 0.001.

predictions linking perceptions of a partner’s sex motives to personal and interpersonal well-being. The second one examined the association between one person’s motives for engaging in sex and the partner’s perception of his or her motives.

*Perceived partner sex motives and well-being.* It was hypothesized that perceiving one’s partner engage in sex for approach motives (AP<sub>PER</sub>) would be associated with greater personal and interpersonal well-being, whereas perceiving one’s partner engage in sex for avoidance motives (AV<sub>PER</sub>) would be associated with poorer personal and interpersonal well-being. As predicted, AP<sub>PER</sub> was positively associated with relationship satisfaction (*r* = .25, *p* < .05) and PA (*r* = .42, *p* < .001) but was not associated with NA (*r* = .02, *p* = .84). In contrast, AV<sub>PER</sub> was negatively associated with relationship satisfaction (*r* = -.45, *p* < .001) and positively associated with NA (*r* = .27, *p* < .01) but was not associated with PA (*r* = -.01, *p* = .97). Contrary to expectations, however, SWL was not associated with either AP<sub>PER</sub> (*r* = .16, *p* = .17) or AV<sub>PER</sub> (*r* = -.08, *p* = .49).

Further analyses tested the hypothesis that perceived sex motives would be better predictors of partner well-being than would the percentage of days on which the couples engaged in sex (FREQ). To test this prediction, regres-

sion equations were constructed in which AP<sub>PER</sub>, AV<sub>PER</sub>, and FREQ were entered simultaneously to predict each of the measures of the partner’s well-being (i.e., PA, NA, SWL, and relationship satisfaction). Table 4 displays the results of these analyses. As predicted, sexual frequency was not significantly associated with NA (*p* = .76), SWL (*p* = .17), or relationship satisfaction (*p* = .77), controlling for perceived sex motives. But the more often the partners engaged in sex, the higher their PA ( $\beta$  = .25, *p* < .05). Further, AP<sub>PER</sub> and AV<sub>PER</sub> remained strong and significant predictors of each measure of personal and interpersonal well-being, even after controlling for the percentage of days on which the couples engaged in sex.

Another set of analyses tested the longer term associations between perceived partner sex motives and relationship stability. It was hypothesized that perceiving a partner engage in sex for approach motives would predict fewer break-ups by the 1-month follow-up. Conversely, perceiving a partner engage in sex for avoidance motives would predict more break-ups. To test these predictions, scores for perceived partner approach and avoidance sex motives were entered simultaneously into a logistic regression equation predicting relationship status (*broken up* = 0; *still together* = 1) at the follow-up. Similar to the results from the participants in the daily experience study, the data from partners supported our predictions for avoidance but not for approach motives. Specifically, perceived partner approach motives did not predict fewer break-ups at the 1-month follow-up (OR = .66; 95% CI = .28, 1.59; *p* = .36), but perceived partner avoidance motives did predict more break-ups. That is, for each unit increase in perceived partner avoidance motives, partners were more than 1.5 times as likely to have broken up by the 1-month follow-up (OR = 1.78; 95% CI = 1.04, 3.06; *p* < .05).

*Associations between “actual” and perceived motives.* Although not included in the initial predictions, another important question concerned partners’ ability to read or decode each other’s motives for engaging in sex. In

other words, when one person decides or agrees to engage in sex, does his or her partner understand why? For the following analyses, APPROACH and AVOID refer to the participants' scores on approach and avoidance sex motives measured over the 2-week study; AP<sub>PER</sub> and AVOID<sub>PER</sub> refer to the partners' scores on the measure of perceived sex motives. The results showed that APPROACH was associated with AP<sub>PER</sub> ( $r = .27, p < .05$ ). In contrast, AVOID was not associated with AVOID<sub>PER</sub> ( $r = .09, p > .05$ ). Thus, it may be more difficult to gauge when a partner engages in sex for avoidance motives than for approach motives. It is possible that sexual interactions undertaken in the pursuit of approach motives are enacted with more enthusiasm and excitement, making it easier for the partner to pick up on one's motives. It should be noted, however, that measures of perceived sex motives required partners to mentally aggregate the importance of the various motives over the previous 2 weeks. A better test of whether individuals can pick up on a partner's motives for engaging in sex would focus on whether and when partners recognize motives for specific sexual interactions. A daily experience study that includes data from both partners would be ideal.

## Discussion

Sexual interactions can be a potent force that sustains and enhances intimate relationships; they can also create emotional distress, personal discontent, and relationship conflict (e.g., Laumann et al., 1994). The current research sought to understand why individuals experience such different reactions to sex by applying an approach-avoidance motivational perspective.

### *Summary of major findings*

The current daily experience study demonstrated that the personal and interpersonal correlates of engaging in sex depend—at least in part—on the underlying motives served by sex. Specifically, on days when people engaged in sex for approach motives, they experienced more positive emotions, greater

SWL, greater relationship well-being in terms of satisfaction, closeness, and fun, and less relationship conflict. In contrast, on days when they engaged in sex for avoidance motives, they experienced more negative emotions, more relationship conflict, and less positive relationship well-being. These results could not be accounted for by the frequency with which individuals engaged in sex or their level of sexual desire during their sexual interactions. That is, motives for sex were more powerful predictors of well-being than self-reported sexual frequency or sexual desire.

Analyses of the longitudinal data collected a month after the end of the daily experience study demonstrated that engaging in sex for avoidance motives was particularly detrimental to the maintenance of relationships over time. Specifically, the more often participants had sex for avoidance motives over the course of the 2-week study, the less satisfied they were and the more likely they were to have broken up with their partners 1 month later, regardless of their initial relationship satisfaction and commitment. It is interesting to note that while approach motives were more strongly associated with well-being *within days*, avoidance motives were more strongly associated with well-being *over time*. Taken together, these findings about avoidance motivation are generally consistent with the “bad is stronger than good” argument in which negative events and processes tend to have a greater impact than positive events and processes (see review by Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001).

Perceptions of a partner's motives for sex were also associated with well-being. The more individuals perceived that their partner engaged in sex with them for approach motives over the previous 2 weeks, the greater their self-reported PA and relationship satisfaction. Conversely, the more they indicated that their partner engaged in sex for avoidance motives, the greater their NA and the lower their relationship satisfaction. Further, perceived partner avoidance motives were associated with an increased likelihood of breaking up by the 1-month follow-up. In short, one person's attributions for a partner's sexual behavior were associated with his or her

emotional experiences and satisfaction in the relationship.

### *Methodological and theoretical contributions*

A major strength of this research concerns the daily nature of the data collection. Most research on couple sexuality relies on cross-sectional retrospective reports of sexual behavior. Such reports may include a variety of memory biases, including selective memory for only the most salient or recent sexual experiences (Kahneman, 2000). Instead, the daily experience methodology adopted in this research enabled participants to report on sexual interactions shortly after they occurred. The use of the daily experience method provided a fuller and more accurate understanding of how sexual interactions shape the lives and experiences of intimate couples.

Second, because this project emphasized both  *motive expression* (one person's self-reported motives for sex) and  *motive attribution* (one person's perceptions of a partner's motives), it takes an important step toward providing a dyadic perspective on sexuality in intimate relationships. Not only were one's own motives for engaging in sexual activity associated with personal and interpersonal well-being, but perceptions of a partner's motives also made a difference. Future research that focuses on other interpersonal processes in sexuality such as the partner's own motives for engaging in sex is clearly needed, a point that we will return to shortly.

Third, this study adds to the growing body of research demonstrating the utility of approach-avoidance models of motivation in understanding a broad range of phenomena in everyday life (e.g., Elliot & Sheldon, 1997; Gable et al., 2000). Further, this study is part of an emerging area of research that focuses on motivation and close relationships. Very little research has investigated the motivational processes involved in establishing and maintaining intimate relationships. This study represents a first step toward articulating how motives for sexual intimacy are associated with day-to-day well-being and the maintenance of relationships over time.

Fourth, this research has important implications for understanding more general relationship maintenance processes in intimate couples. Many of the sex motives assessed in this research focused on desires to maintain an important relationship (e.g., "to promote intimacy in my relationship" and "to avoid conflict in my relationship"). Results from this study suggest that behaviors enacted in order to maintain and preserve harmony in a relationship may be much more useful to couples than behaviors enacted to prevent conflict or relationship discord. As such, this research might inform couples therapy programs, perhaps by teaching couples to focus on things that they want to create in their relationships (e.g., peaceful communication) rather than to focus on things they want to avoid (e.g., fighting).

### *Limitations and future directions*

Several limitations of this research and directions for future research deserve comment. First, it will be valuable to extend the motivational framework used in this research to a broader range of couples. Participants in this study were college students in dating relationships, compromising the generalizability of the findings. It will be important to replicate and extend these findings both to nonstudent samples and to married couples and others involved in relationships of greater duration and commitment. It is likely that long-term married couples may engage in sex less frequently than the young dating couples in this sample (see review by Willetts, Sprecher, & Beck, 2004); however, the theoretical model that links motives to well-being should apply equally well to married and dating couples. Future research is certainly needed to test this possibility. Further, it is unclear how well the results of this study would generalize to special groups of couples, such as couples with disharmonious relationships or sexual difficulties. Some unhappy couples may simply stop having sex, in which case it would be important to consider motives for avoiding sex rather than motives for having sex. Further, the base rate of specific motives may differ in specific populations. For example, compared to women in relatively happy relationships,

women in conflict-ridden or physically abusive relationships may be more likely to engage in sex to avoid conflict with a partner. As a further example, for couples in which a male partner has had prostate surgery, sex may be motivated not only by a desire to affirm intimacy but also by a desire to reassure the man about his masculinity. Future research using a motivational framework to investigate the sexual experiences of diverse types of couples will be useful.

Second, questions can be raised about the validity of self-reports of sexual behavior (Catania, Gibson, Chitwood, & Coates, 1990), including those used in this study. One barrier to valid reporting concerns difficulties in recalling events fully and accurately, a problem that was reduced in this study because of the daily nature of data collection. Other more problematic barriers in this study include possible embarrassment, desire for privacy, or the desire to embellish one's experience. While these factors may have limited honest reporting, it is not clear how they would have specifically affected the theoretical link between approach and avoidance motives and daily well-being.

Third, many of the measures included in the daily experience were necessarily brief. For instance, the sex motives measure included only nine of many possible reasons for engaging in sex. Many motives were not captured by our scale (e.g., to experience a sense of power in the relationship). Further, our measure of sex motives included relatively more partner-focused than self-focused items; future research should balance the number of self- and partner-focused items to examine this important distinction more directly. In addition, it is unclear how participants understood or construed the question that asked them to report on their level of sexual desire during sex. For instance, some participants may have reported on their general level of interest in sex, some on their level of physical arousal, and so on. It is possible that the lack of association between sexual desire and well-being may have been due to ambiguity on the part of the participant about its meaning. Because of the brief nature of many measures in the daily experience study, future studies should assess some of these constructs more fully.

Fourth, although our theoretical framework proposes that motivation influences well-being, our data do not provide a definitive test of this direction of causality. Other causal connections are also possible. For example, a person's mood, his/her perceptions of a partner's mood, or the current state of their relationship may affect their motives for engaging in sex. Correlational data, such as those provided in our daily experience study, cannot disentangle these causal patterns. Longitudinal studies can play an important role in establishing causal relations. In this paper, the short-term longitudinal findings linking avoidance motives to decreases in later relationship satisfaction and greater rates of break-up over time are consistent with, but do not provide a definitive test of, the argument that motives influence well-being.

Finally, this study does not speak to the possible processes by which approach and avoidance sex motives are associated with personal and interpersonal well-being. Future research should identify and test possible mediators of these associations. One potential mediator may be the specific behaviors enacted during a sexual interaction. When individuals engage in sex for approach motives such as to pursue sexual pleasure or please a partner, they may verbally or nonverbally express their pleasure and passion. Avoidance-motivated sex may be enacted with more reluctance and less enthusiasm. A perceptive partner may notice and be influenced by these behavioral cues.

Another possible mediator may be the processing of cues during a sexual interaction. Individuals who engage in sex for approach or avoidance motives may be more or less likely to attend to particular perceptual cues from the partner. Research has shown that whereas individuals with strong approach motives tend to be biased toward positive cues, those with strong avoidance motives tend to be biased toward negative cues (e.g., Derryberry & Reed, 1994; Gomez, Gomez, & Cooper, 2002). Engaging in sex for approach motives may lead people to pay attention to and notice more positive cues—a partner's joy, delight, and sexual pleasure. Engaging in sex for avoidance motives may lead people to notice more negative cues—possible signs of a partner's

displeasure or waning interest in the sexual experience. In short, people may orient themselves to and then ultimately experience the very things they were trying to obtain or avoid.

### Concluding comments

This daily experience study demonstrates the usefulness of applying an approach-avoidance motivational framework to the study of couple sexuality. Further, this research advances our understanding of the possible costs and benefits of engaging in sex in pursuit of different motives. Sometimes, people engage in sexual activity to pursue their own pleasure or enhance a partner's sexual experience. At other times, they do so to prevent tension, conflict, or a partner's loss of interest. The central idea guiding this research is that these two very different motives—the first focusing on obtaining positive outcomes and the second focusing on avoiding negative outcomes—have important and unique implications for understanding both personal and interpersonal well-being.

### References

- Basson, R. (2001). Using a different model for female sexual response to address women's problematic low sexual desire. *Journal of Sex and Marital Therapy*, 27, 395–403.
- Basson, R. (2003). Biopsychosocial models of women's sexual response: Applications to management of 'desire disorders.' *Sexual and Relationship Therapy*, 18, 107–115.
- Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Voys, K. D. (2001). Bad is stronger than good. *Review of General Psychology*, 5, 323–370.
- Blau, P. M. (1964). *Exchange and power in social life*. New York: John Wiley.
- Call, V., Sprecher, S., & Schwartz, P. (1995). The incidence and frequency of marital sex in a national sample. *Journal of Marriage and the Family*, 57, 639–652.
- Carroll, J. L., Volk, K. D., & Hyde, J. S. (1985). Differences between males and females in motives for engaging in sexual intercourse. *Archives of Sexual Behavior*, 14, 131–139.
- Carver, C. S., & Scheier, M. F. (1990). Origins and functions of positive and negative affect: A control-process view. *Psychological Review*, 97, 19–35.
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York: Cambridge University Press.
- Carver, C. S., Sutton, S. K., & Scheier, M. F. (2000). Action, emotion, and personality: Emerging conceptual integration. *Personality and Social Psychology Bulletin*, 26(6), 741–751.
- Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology*, 67, 319–333.
- Catania, J. A., Gibson, D. R., Chitwood, D. D., & Coates, T. J. (1990). Methodological problems in AIDS behavioral research: Influences on measurement error and participation bias in studies of sexual behavior. *Psychological Bulletin*, 108, 339–362.
- Coats, E. J., Janoff-Bulman, R., & Alpert, N. (1996). Approach versus avoidance goals: Differences in self-evaluation and well-being. *Personality and Social Psychology Bulletin*, 22, 1057–1067.
- Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky sexual behavior among adolescents and young adults: A functional perspective. *Journal of Personality and Social Psychology*, 75, 1528–1558.
- Davidson, R. J., Ekman, P., Saron, C. D., Senulis, J. A., & Friesen, W. V. (1990). Approach-withdrawal and cerebral asymmetry: Emotional expression and brain physiology. *Journal of Personality and Social Psychology*, 58, 330–341.
- Davies, S., Katz, J., & Jackson, J. L. (1999). Sexual desire discrepancies: Effects on sexual and relationship satisfaction in heterosexual dating couples. *Archives of Sexual Behavior*, 28, 553–567.
- Denney, N. W., Field, J. K., & Quadagno, D. (1984). Sex differences in sexual needs and desires. *Archives of Sexual Behavior*, 13, 233–245.
- Derryberry, D., & Reed, M. A. (1994). Temperament and attention: Orientating toward and away from positive and negative signals. *Journal of Personality and Social Psychology*, 66, 1128–1139.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49, 71–75.
- Downey, G., Freitas, A. L., Michaelis, B., & Khouri, H. (1998). The self-fulfilling prophecy in close relationships: Rejection sensitivity and rejection by romantic partners. *Journal of Personality and Social Psychology*, 75, 545–560.
- Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72, 218–232.
- Elliot, A. J., & Covington, M. V. (2001). Approach and avoidance motivation. *Educational Psychology Review*, 13, 73–92.
- Elliot, A. J., & Sheldon, K. M. (1997). Avoidance achievement motivation: A personal goals analysis. *Journal of Personality and Social Psychology*, 73, 171–185.
- Elliot, A. J., Sheldon, K. M., & Church, M. A. (1997). Avoidance personal goals and subjective well-being. *Personality and Social Psychology Bulletin*, 23, 915–927.
- Gable, S. L. (in press). Approach and avoidance social motives and goals. *Journal of Personality*.
- Gable, S. L., Reis, H. T., & Elliot, A. J. (2000). Behavioral activation and inhibition in everyday life. *Journal of Personality and Social Psychology*, 78, 1135–1149.
- Gomez, R., Gomez, A., & Cooper, A. (2002). Neuroticism and extraversion as predictors of negative and positive emotional information processing: Comparing Eysenck's, Gray's and Newman's theories. *European Journal of Personality*, 16, 333–350.

- Gray, J. (1987). *The psychology of fear and stress* (2nd ed.). New York: Cambridge.
- Hatfield, E., Sprecher, S., Pillemer, J. T., Greenberger, D., & Wexler, P. (1989). Gender differences in what is desired in the sexual relationship. *Journal of Psychology and Human Sexuality*, 1(2), 39–52.
- Heckhausen, H. (1991). *Motivation and action*. Berlin, Germany: Springer-Verlag.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. *Advances in Experimental Social Psychology*, 30, 1–46.
- Hill, C. A. (1997). The distinctiveness of sexual motives in relation to sexual desire and desirable partner attributes. *Journal of Sex Research*, 34, 139–153.
- Hill, C. A., & Preston, L. K. (1996). Individual differences in the experience of sexual motivation: Theory and measurement of dispositional sexual motives. *The Journal of Sex Research*, 33, 27–45.
- Impett, E. A. (2002). [Sex motives and emotional and interpersonal reactions to sexual scenarios]. Unpublished raw data.
- Impett, E. A., Gable, S. L., & Peplau, L. A. (in press). Giving up and giving in: The costs and benefits of daily sacrifice in intimate relationships. *Journal of Personality and Social Psychology*.
- Impett, E. A., & Peplau, L. A. (2002). Why some women consent to unwanted sex with a dating partner: Insights from attachment theory. *Psychology of Women Quarterly*, 26, 359–369.
- Impett, E. A., & Peplau, L. A. (2003). Sexual compliance: Gender, motivational, and relational perspectives. *The Journal of Sex Research*, 40, 87–100.
- Impett, E. A., & Peplau, L. A. (in press). 'His' and 'her' relationships?: A review of the empirical evidence. In A. Vangelisti & D. Perlman (Eds.), *The Cambridge handbook of personal relationships*. New York: Cambridge University Press.
- Kahneman, D. (2000). Experienced utility and objective happiness: A moment-based approach. In D. Kahneman & A. Tversky (Eds.), *Choices, values, and frames* (pp. 673–692). New York: Cambridge University Press and the Russell Sage Foundation.
- Kinsey, A. C., Pomeroy, W. B., & Martin, C. E. (1948). *Sexual behavior in the human male*. Philadelphia: W.B. Saunders.
- Kinsey, A. C., Pomeroy, W. B., Martin, C. E., & Gebhard, P. H. (1953). *Sexual behavior in the human female*. Philadelphia: W.B. Saunders.
- Laumann, E. O., Gagnon, J. H., Michael, R. T., & Michaels, S. (1994). *The social organization of sexuality: Sexual practices in the United States*. Chicago: University of Chicago Press.
- Leigh, B. C. (1989). Reasons for having and avoiding sex: Gender, sexual orientation, and relationship to sexual behavior. *The Journal of Sex Research*, 26, 199–209.
- Lerner, M. J., Miller, D. T., & Holmes, J. G. (1976). Deserving vs. justice: A contemporary dilemma. In L. Berkowitz & E. Walster (Eds.), *Advances in experimental social psychology* (Vol. 9, pp. 169–193). New York: Academic Press.
- Masters, W. H., & Johnson, V. E. (1966). *Human sexual response*. Boston: Little, Brown.
- Michael, R. T., Gagnon, J. H., Laumann, E. O., & Kolata, G. (1994). *Sex in America: A definitive survey*. Boston: Little, Brown.
- Muehlenhard, C. L., & Schrag, J. L. (1991). Nonviolent sexual coercion. In A. Parrot & L. Bechhofer (Eds.), *Acquaintance rape: The hidden crime* (pp. 115–128). New York: Wiley.
- Raudenbush, S. W., Bryk, A. S., Cheong, Y. F., & Congdon, R. T. (2000). *HLM: Hierarchical linear and nonlinear modeling*. Chicago: Scientific Software International.
- Reis, H. T., & Gable, S. L. (2000). Event-sampling and other methods for studying daily experience. In H. T. Reis & C. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 190–222). New York: Cambridge University Press.
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The investment model scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships*, 5, 357–391.
- Rusbult, C. E., & Van Lange, P. A. M. (1996). Interdependence processes. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 564–596). New York: Guilford.
- Snijders, T., & Bosker, R. (1999). *Multilevel analysis: An introduction to basic and advanced multilevel modeling*. London: Sage.
- Snyder, M., & Cantor, N. (1997). Understanding personal and social behavior: A functionalist strategy. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., pp. 635–679). New York: McGraw-Hill.
- Sprecher, S. (2002). Sexual satisfaction in premarital relationships: Associations with satisfaction, love, commitment, and stability. *The Journal of Sex Research*, 3, 1–7.
- Sprecher, S., & Cate, R. M. (2004). Sexual satisfaction and sexual expression as predictors of relationship satisfaction and stability. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.), *The handbook of sexuality in close relationships* (pp. 57–86). Mahwah, NJ: Lawrence Erlbaum.
- Strachman, A., Marelich, W., Fingerhut, A., & Gable, S. (2004). [The effects of approach and avoidance sexual motivation on HIV testing and lying behavior]. Unpublished manuscript.
- Sutton, S. K., & Davidson, R. J. (1997). Prefrontal brain asymmetry: A biological substrate of the behavioral approach and inhibition systems. *Psychological Science*, 8, 204–210.
- Watson, D., Tellegen, A., & Clark, L. (1988). Development and validation of brief measures of positive and negative affect: The PANAS Scales. *Journal of Personality and Social Psychology*, 54, 1063–1070.
- Willettts, M. C., Sprecher, S., & Beck, F. D. (2004). Overview of sexual practices and attitudes within relational contexts. In J. H. Harvey, A. Wenzel, & S. Sprecher (Eds.), *The handbook of sexuality in close relationships* (pp. 57–86). Mahwah, NJ: Lawrence Erlbaum.