

SEX ON THE REBOUND: MOTIVATIONS FOR SEX
AND SEXUAL EXPERIENCES FOLLOWING A RELATIONSHIP BREAKUP

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AND SEXUAL EXPERIENCES FOLLOWING A RELATIONSHIP BREAKUP

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Running head: SEX ON THE REBOUND

Sex on the Rebound:

Motivations for Sex and Sexual Experiences

Following a Relationship Breakup

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Abstract

Despite widespread belief in the rebound phenomenon, few studies have examined sexual experiences after relationship loss. The present study uses a longitudinal, online diary methodology to examine emotional and sexual responses to the loss of a romantic relationship among 170 undergraduate students who had experienced a recent breakup. Consistent with popular belief and previous research, individuals were more distressed and had lower self-esteem after a breakup, especially if they were “dumped” or had a higher quality or longer-lasting relationship, but these effects dissipated within 5-6 months post-breakup. Counter to belief, however, individuals were not more likely to have sex right after the breakup vs. later, but when they did it was often for unhealthy reasons, including to get over or get back at the ex-partner. In sum, although rebound sex was uncommon after a breakup, it still exists and is no less potentially harmful to those who engage in it.

Sex on the Rebound:

Motivations for Sex and Sexual Experiences Following a Relationship Breakup

According to popular belief, people are at heightened risk of becoming involved with an ill-suited partner or making poor or risky sexual decisions following the breakup of a serious romantic relationship. People “on the rebound” are thought to be emotionally vulnerable due to the increased feelings of distress, anger, and loss, as well as diminished self-esteem thought to accompany loss of one’s relationship partner. Consequently, people “on the rebound” may jump into a new relationship or have sex to boost their self-esteem and confidence, to ease pain and loneliness, or to “get over” the breakup – in other words, have “rebound sex.” Alternatively, feelings of heightened distress and anger might also (or instead) cause one to have sex to “get back” at their ex-partner, that is, to have “revenge sex.” And finally, both forms of sexual experience are thought to be more common among those who were “dumped” or were in more committed or longer-lasting relationships, presumably because they experience greater distress, anger, and so on.

Despite the widespread nature of these beliefs, almost no scientific data exist on sexual experiences in the aftermath of a romantic relationship breakup. The present study therefore proposes to examine sexual motives (or the reasons why people have sex) and sexual and relationship experiences following the breakup of a romantic relationship, using a weekly online diary methodology among a sample of college students who had recently broken up from their high school relationships. The literature review presented below will first cover popular lore and scientific research about the rebound phenomenon followed by a review of research on the psychological consequences of a romantic

relationship breakup. Then, we discuss research and theory on sexual motivations and end with an overview of the current study on the rebound phenomenon.

Popular Beliefs about Being on the Rebound

The internet provides an unusually rich source of information about popular beliefs on the rebound phenomenon. Searches of dating and relationship websites, including blogs, message boards, and discussion forums, revealed a widely shared set of beliefs about the nature of rebound and revenge sex (see Appendix A for a list of URLs accessed during this search). Both rebound and revenge sex are seen as problematic or maladaptive forms of sexual behavior that occur in the aftermath of a romantic relationship breakup, with the primary difference being that one is more motivated by a sense of loss or insecurity (rebound sex) and the other by anger and the desire to punish or make one's ex-partner sorry (revenge sex). Aside from this distinction, the two phenomena are thought to be closely related and to share a set of common characteristics or features.

First, there is an implicit assumption that the lost relationship was meaningful and at least somewhat serious. Otherwise, the individual would not be seen as having been in a "relationship."

Second, although the individual may not be ready emotionally to enter into a new relationship, heightened levels of negative affect and increased need states are thought to override judgments about relationship and sexual issues, thus increasing the likelihood that individuals on the rebound will enter into relationships or have sex with partners that are ill-advised or risky. Third and relatedly, because rebound sex is thought to occur for maladaptive or pathogenic reasons (e.g., getting over or getting back at the ex-partner,

coping with distress, etc.), it is widely assumed that these experiences are unlikely to lead to positive outcomes or to a healthy or lasting relationship with the new sex partner.

There is less agreement among website postings on other parameters of the rebound phenomenon, however. Although most people appear to believe that not everyone is equally likely to experience a rebound phase, some believe that the first relationship or sex partner after a breakup is by definition a rebound partner, and even go so far as to encourage recently separated individuals to get back out there and get the rebound relationship over with!

In contrast, those who do not believe that the rebound phase is unavoidable typically point to features of the breakup itself as key determinants of who will and won't go through this phase. In particular, "the dumpee" is assumed to be more affected by the breakup, in part because he or she did not anticipate or choose the breakup, whereas the "dumper" did. Although being "dumped" presumably puts one at greater risk for the rebound phenomenon, others note that a person who actively initiated the breakup, or mutually agreed to the breakup, may also be vulnerable to rebound phenomena to the extent that he or she remains emotionally attached to the ex-partner.

Beliefs about how long the rebound phase lasts also appear to vary. While some believe that there is a set time frame, estimates of the length of that time frame range widely, from a few days to as long as two years. Perhaps more common is the notion that duration depends on the length of the prior relationship, though here again there is no agreement on that formula. For example, some suggest that it takes "a month for every year of [the] relationship" ("Rebound Relationships," 2009), whereas others suggest it takes "1/2 the amount of time you were together" to fully heal from a breakup ("How

Long does it Take,” 2008). Still others believe that “being on the rebound is a state of mind . . . rather than a set time period,” and that healing from a relationship loss “varies from person to person” (“Flirty Friend,” 2008; “On the Rebound,” 2008), depending for example on factors associated with the breakup itself.

Finally, it is also interesting to point out what is not part of the common rebound lore. In particular, there is little discussion of characteristics of the individual and how these shape the rebound phenomenon. There is no direct discussion of gender differences, and anecdotes of people on the rebound appear to feature men and women at similar rates. In addition, comments about the type of person (e.g., neurotic, insecure) who is more likely to be on the rebound are virtually absent on these websites.

In short, although there appears to be broad agreement that rebound sex exists and considerable convergence on what it is and what motivates or causes it, there is much less agreement on who will experience a rebound phase and how long it will last.

Past Research on Rebound or Revenge Sex

Despite the widespread nature of beliefs about the rebound sex phenomenon, only a small number of studies provide data relevant to this issue. Several studies have examined sexual and relationship experiences in the aftermath of a divorce or separation (e.g., Anderson, Greene, Walker, Malerba, Forgatch, & DeGarmo, 2004; Leigh, Temple, & Trocki, 1993; Smith, 1991). Together these studies show that the overwhelming majority (85% to 90% in one national study; Leigh et al., 1993) of individuals who describe themselves as currently divorced or separated have had at least one sex partner in the past year, and a substantial minority (33% in the Leigh et al. study) have had two or more partners. However, none of these studies provided data on how long ago the

separation or divorce occurred, when the sexual experiences occurred relative to the breakup, or whether any of the experiences were considered instances of rebound or revenge sex by the respondents.

However, a more recent study sheds light on some of these issues. ABC News Primetime Live conducted a survey in 2004 on sexual behavior in America. A randomly selected national sample of 1,501 adults (18 and over) was surveyed by phone (response rate = 92%). Results revealed that approximately 1 in 5 Americans admitted to having ever had rebound sex (defined as “sex with someone just to help you get over a failed relationship”), with almost equal percentages of men and women endorsing this motive (23%, 20%, respectively). Approximately 1 in 10 admitted to having ever had revenge sex (defined as “sex with someone just to get back at someone else”), again with nearly equal proportions between men and women (10%, 9%, respectively). In short, these data indicate that a significant minority of American adults self-report engaging in rebound and revenge sex, though they shed no light on the frequency of these behaviors, the time course in which they occur, or the circumstances most likely to surround or prompt these experiences.

The final study to examine this issue did not directly assess reports of rebound or revenge sex, but rather examined rates of sexual behavior as a function of elapsed time since the breakup (Wade & DeLamater, 2002). Using data from the 1992 National Health and Social Life Survey (response rate = 79%), 536 individuals whose most recent breakup involved either a cohabiting or marital relationship retrospectively reported the number of different sex partners since the breakup or, for those who broke up more than one year ago, in the past year. Only currently single individuals comprised the recent

breakup group (i.e., broke up less than a year ago), whereas both singles and those who had transitioned into a new relationship in the past year made up the remote breakup group (i.e., broke up a year ago or more). A monthly average was computed for both groups based on the number of elapsed months since the breakup or in the past year, to yield an average number of partners per month. Results showed that individuals who had broken up within the past year reported a higher monthly average number of new sexual partners than those who had broken up a year ago or longer. Additionally, men who left a cohabitational relationship within the past year acquired more new sexual partners than females who left a similar relationship. Wade and DeLamater (2002) suggested that acquiring a new sexual partner(s) might aid in adjustment by fulfilling intimacy or revenge needs, or by enhancing self-esteem.

Although these data can be seen as consistent with the notion of rebound sex, they are limited in several important ways. First, participants were not asked about their motives for sex, nor did they provide any information about the nature of their partners (e.g., whether they included the ex-partner, were casual or serious, etc.). Additionally, information also was not available on the time course of the sexual experiences among the recent breakup group, and an assumption was made that one year was an important watershed in the recovery process. However, data on emotional recovery (reviewed below) suggests that recovery occurs more quickly than this (e.g., Sbarra, 2006; Sbarra & Emery, 2005). Lastly, those individuals who had broken up more than a year ago but made the transition into a relationship with the ex-partner or with a new partner were still included in the remote breakup group, whereas only currently single individuals comprised the recent breakup group. Thus, differences in the number of sex partners

between the two groups could reflect the fact that people who are in relationships have, on average, fewer partners than those who are not (Santelli, Brener, Lowry, Bhatt, & Zabin, 1998).

Together these studies indicate that most people are sexually active in the year following a romantic relationship breakup and that they may have more partners during this period; that a significant minority of people acknowledges having ever had rebound or revenge sex; and finally that men and women are equally prone to having rebound sex. However, the literature as a whole is extremely sparse and suffers from several important limitations, including the exclusive reliance on cross-sectional designs and retrospective recall. In addition, no studies have examined rebound phenomena in the aftermath of the breakup of a dating (i.e., non-marital, non-cohabiting) relationship. Because these relationships are likely to differ on a number of parameters (e.g., degree of interdependence, seriousness, length, age or life stage, etc.), it is difficult to know how these findings generalize to the breakup of a dating relationship.

While the literature on rebound sex is at a very early stage of development, much more is known about the psychological and emotional sequelae of romantic relationship breakups, including marital, cohabiting, and dating relationships. Because the emotional processes following a relationship breakup are thought to drive the rebound phenomenon, we now turn to a review of that literature.

Psychological Sequelae of Relationship Breakups

Because the present study examines responses to the breakup of dating rather than marital relationships, and because the process of recovery from the breakup of these two types of relationships may differ, the following review focuses on studies of recovery

from the breakup of dating relationships. Furthermore, although there is some evidence that ending a relationship can lead to self-growth and other positive outcomes (e.g., feeling stronger, gaining relational wisdom; Tashiro & Frazier, 2003), negative consequences not only appear to dominate in the immediate aftermath of a relationship breakup (Sprecher, Felmlee, Metts, Fehr, & Vanni, 1998), but are also most relevant to the present study. Thus, the present review focuses primarily on negative reactions to a breakup.

Extant research identifies two important classes of adverse psychological reactions to the loss of a romantic relationship: heightened negative affect and decreased feelings of self-worth. Studies examining both indicators are reviewed below.

Increased negative affect. Negative emotional reactions, including both increased sadness and anger, are the most commonly studied responses to a romantic relationship breakup, and they also appear to be the most predominant response. Heightened negative affect has been observed in both retrospective and prospective studies, among men and women, and regardless of the characteristics of the relationship or of the breakup.

For example, Sprecher and colleagues (1998) found that participants who had broken up from a relationship in the past year retrospectively reported that they had experienced heightened feelings of depression, anger, hate, resentment, loneliness, guilt, frustration, jealousy, and hurt right after the breakup. Several other retrospective studies yielded similar findings for global measures of distress (Frazier & Cook, 1993; Sprecher, 1994) and for anger (Sprecher, 1994).

Only one study, however, provides a more refined look at the process of emotional recovery (Sbarra & Emery, 2005). Using a short-term longitudinal diary

design, individuals who experienced a nonmarital relationship dissolution within the past two weeks ($M = 10.9$ days, range = 2-13 days) reported on their feelings of sadness and anger over a 28-day period. Compared to a group who remained in intact dating relationships, the breakup group experienced significantly more anger than participants in intact relationships across all occasions of measurement. Conversely, although post-dissolution participants reported greater sadness than dating participants initially (i.e., during the first week of the study), their reports converged by the end of the 28-day period. In short, feelings of sadness over the loss dissipated quickly in this study, though feelings of anger at the ex-partner persisted up to six weeks after the breakup.

Using the same data set, Sbarra (2006) examined patterns of within-person change over time, and found that nearly 80% of those who had broken up experienced a recovery (defined as reporting levels for three consecutive days “at or below one standard deviation unit above the mean rates observed in the comparison sample,” p. 301) in both sadness and anger by the end of the 28-day study.

Although these studies document that increased negative affect typically occurs in the aftermath of a romantic relationship breakup, other studies have examined factors that predict the degree or duration of distress experienced after a breakup (Davis, Shaver, & Vernon, 2003; Fine & Sacher, 1997; Frazier & Cook, 1993; Helgeson, 1994; Simpson, 1987; Sprecher, 1994; Sprecher et al., 1998). In general, these studies show that people who were in more committed or higher quality relationships and longer-lasting relationships, as well as those who were dumped, experienced more distress both immediately following and for as long as 6 months after the breakup. Importantly, several of these studies were prospective in the sense that relationship commitment or quality

was assessed prior to the breakup (Davis et al., 2003; Fine & Sacher, 1997; Helgeson, 1994; Simpson, 1987; Sprecher et al., 1998), thus helping to rule out the possibility that people who report more distress after a breakup retrospectively perceive that they were more committed as a way to “explain” their distress.

Studies examining gender differences in response to romantic relationship breakups have yielded more mixed results, however. Some studies have found that males report more distress after the breakup (Hill, Rubin, & Peplau, 1976), whereas others have found that females do (Frazier & Cook, 1993; Sprecher et al., 1998). Still others found no reliable gender differences in distress (Simpson, 1987; Simpson, 1990; Sprecher, 1994; Sprecher et al., 1998; Tashiro & Frazier, 2003). Finally, two additional studies found that gender interacted with who initiated the breakup to predict post-dissolution distress. In particular, men who were dumped retrospectively reported greater initial distress than men who chose to leave the relationship; however, there was no difference in women’s distress as a function of initiator status (Fine & Sacher, 1997; Helgeson, 1994). In contrast, however, two studies tested for, but failed to find, gender-by-initiator status interactions (Simpson, 1990; Tashiro & Frazier, 2003).

Decreased self-worth. Relatively few studies have examined the effects of relationship breakup on feelings of self-worth. However, among those that do, the data are consistent in showing that at least some people experience declines in feelings of self-esteem or self-worth after a relationship breakup. For example, Davis et al. (2003) found that being dumped was associated with retrospectively reporting a greater sense of lost identity after the breakup. They also reported that those with higher emotional involvement in the relationship were more likely to blame themselves for the breakup.

Because self-blame for a negative event (e.g., childhood abuse, sexual abuse, battery) has been linked to lowered self-esteem (Clements, Sabourin, & Spiby, 2004; Goodman & Pickens, 2001; Hoagwood, 1990), this finding also suggests that a relationship breakup might lead to decreased feelings of self-worth, possibly via self-blame. Finally, Frazier and Cook (1993) found that those who retrospectively reported experiencing the breakup as more stressful had lower self-esteem after the breakup, although direction of causality is unclear.

Summary. The above literature clearly indicates what common sense already tells us – people experience heightened distress and decreased feelings of self-worth following the breakup of a relationship, though data on the time course of these feelings is less clear. Although only one study has examined the time course, this study suggests that individuals return to baseline rather quickly (within the first month) for feelings of distress, though feelings of anger may last longer. Additionally, the degree to which individuals experience these feelings appears to vary as a function of the relationship and the breakup situation itself, such that people in more committed and longer-lasting relationships and people who are dumped experience greater distress and lower self-esteem following the breakup. Whether men or women find this transition more difficult, however, remains unclear.

Motives for Sexual Behavior

In the following section, research on what motivates sexual behavior is reviewed. This research not only indicates that people do indeed have sex to cope with distress and to increase their self-esteem (Cooper, Shapiro, & Powers, 1998), but also that having sex for these reasons may be linked to increased partners and other forms of sexual risk-

taking. This body of research thus provides indirect support for the plausibility of the rebound sex phenomenon.

Cooper and her colleagues (1998) have identified six distinct types of psychological motives for sex: enhancement (e.g., sex for the excitement of it), intimacy (e.g., sex to be close to another person), coping (e.g., sex to cope with negative feelings), self-affirmation (e.g., sex to boost one's self-esteem), partner approval (e.g., sex to avoid rejection by one's partner), and peer approval (e.g., sex to 'fit in' with one's peer group). According to these researchers (Cooper et al., 1998; Cooper, Talley, Sheldon, Levitt, & Barber, 2008), motives can be usefully understood in terms of two primary underlying motivational systems: approach and avoidance. Behaviors motivated by the approach system involve the pursuit of positive or pleasurable experiences, whereas avoidance motivated behaviors involve escaping or avoiding negative or painful ones. When applied to sexual behavior, this distinction suggests that people can have sex to seek positive and rewarding experiences or to avoid unpleasant or punishing ones.

As suggested by Gray (1970, 1987), approach and avoidance motives are associated with neurologically unique motivational systems. The behavioral activation system (BAS) controls positive emotions and reward-seeking behaviors, whereas the behavioral inhibition system (BIS) manages negative emotions and responses to threat and punishment. Consistent with this framework, individuals who are high in BAS are particularly responsive to reward cues, which in turn predispose them to reward-seeking behaviors and the experience of positive affect. Conversely, those who are high in BIS are particularly responsive to punishment and threat cues, which in turn predispose them

to respond in a fearful or avoidant manner and to experience negative affect (see Carver & White, 1994; Larsen & Ketelaar, 1991, for supporting evidence).

Approach sex motives. Both intimacy and enhancement motives are considered approach motives because they involve seeking positive rewards, derived either from one's own gratification (for enhancement) or from a meaningful connection with a close other (for intimacy). Research consistently shows that approach motives are more commonly endorsed than avoidance motives as reasons for having sex (Cooper et al., Studies 1 to 3, 1998; Davis, Shaver, & Vernon, 2004; Hoffman & Bolton, 1997; Impett, Peplau, & Gable, 2005; Robinson, Holmbeck, & Paikoff, 2007), and that this pattern holds across gender, race, and age (e.g., Cooper et al., Study 3, 1998). Past research also shows that approach motives are positively associated with sexual satisfaction and intercourse frequency. However, the two approach motives have different implications for risk-taking, with intimacy serving mostly as a protective factor (e.g., fewer and better-known sex partners; Browning, Hatfield, Kessler, & Levine, 2000; Cooper et al., 1998) and enhancement serving primarily as a risk promotive factor (e.g., more sexual partners; Cooper et al., 1998; Gebhardt, Kuyper, & Gruensven, 2003; Grossbard, Lee, Neighbors, Hendershot, & Larimer, 2007).

Avoidance sex motives. The remaining motives identified by Cooper and colleagues are considered avoidant in nature, to the extent that they involve escaping from or avoiding generalized negative emotions or distress (coping motives), feelings of inadequacy or insecurity (self-affirmation motives), or avoiding rejection by one's partner or one's peers (partner and peer approval motives, respectively). As previously indicated, avoidance motives are less commonly endorsed as reasons for sex than

approach motives. However, even among avoidance motives, a consistent rank order has been observed, with self-affirmation and coping motives being endorsed considerably more frequently than either partner or peer approval motives (Cooper et al., 1998). Past research shows that having sex for any of these reasons is associated with less satisfying and rewarding sexual experiences (Cooper et al., 2008; Impett et al., 2005). However, each motive has been linked to a distinct behavioral profile.

For example, coping motives have been linked to more casual sex partners (Cooper et al., 1998; Gebhardt et al., 2003; Hill & Preston, 1996), but better birth control use and fewer unplanned pregnancies (Cooper et al., 1998). This pattern of ‘promiscuous but safe’ behaviors implies a calculated quality to the sexual experiences of those who use sex to cope (cf. Gold & Skinner, 1993).

Like coping motives, having sex for partner approval has been associated with more casual sex partners (Gebhardt et al., 2003) and risky sexual practices (Cooper et al., 1998). In contrast to coping motives, however, partner approval motives have been linked with lower rates of birth control use and higher rates of unplanned pregnancies (Cooper et al., 1998). This pattern suggests that individuals high in partner approval motives are reluctant to assert themselves in sexual situations that might risk partner disapproval (cf., Harlow, Quina, Morokoff, Rose, & Grimley, 1993; Jemmott & Jemmott, 1991.)

In contrast, having sex to self-affirm has been linked with a less consistent pattern of behavior. For example, sex to self-affirm has been linked to an increased number of lifetime sexual partners (Robinson et al., 2007), as well as an increased likelihood of engaging in oral sex and intercourse (Browning et al., 2000; Hill & Preston, 1996; Levinson, Jaccard, & Beamer, 1995). However, Cooper et al. (1998) found that self-

affirmation motives were related to lower lifetime and past-six-month sex frequency. Taken together, these findings suggest that individuals endorsing self-affirmation motives may have sex less often, for example, but with different partners each time.

Lastly, having sex for peer approval reasons has been associated with fewer lifetime sex partners, less frequent sex in the past six months, and fewer lifetime intercourse experiences in early adolescence (Cooper et al., 1998). Over time, however, these same adolescents reported steeper increases in sexual experience, such that they eventually “caught up” with their more sexually experienced peers (Cooper et al., 1998, Study 4). Together these data suggest that early sexual experiences may be motivated by a desire to impress or fit in with one’s peers. However, the fact that endorsement of this motive declines with age suggests that it may play a more minor role in the behavior of older adolescents.

Finally, although Cooper and colleagues (1998) did not specifically identify revenge or rebound motives for sex as part of their overarching rubric, these motives would nevertheless be considered avoidant reasons for having sex to the extent that both are motivated by a need to cope with negative emotions, in one case anger and jealousy toward the ex-partner, and in the other feelings of sadness, loss, or loneliness due to the breakup. No studies have yet examined these motives as predictors of sexual behavior, though the fact that these motives are avoidant in nature indicates that they are likely to be associated with primarily maladaptive outcomes or behaviors.

Overview of the Current Study

The present study uses a longitudinal, online diary methodology to examine trajectories of change in emotional, relationship, and sexual experiences as well as

motives for sexual behavior following a romantic relationship breakup. Over the course of one semester, participants completed an initial questionnaire and training session, 10-12 weekly online surveys (depending on when the individual enrolled in the study), and a brief exit interview. The primary source of our data is the weekly surveys, which assessed current mood and self-esteem as well as relationship and sexual experiences during the past week. Overall our chief aim is to provide empirical evidence for the existence and prevalence of the rebound sex phenomenon.

Hypotheses for the Current Study

As previously mentioned, the present study explores the validity of widely held beliefs about sexual experience in the aftermath of a romantic relationship breakup (“rebound sex”) by following a group of recently separated college students who had broken up in the past 8 months, over the course of a semester. Three sets of broad hypotheses will be tested.

Effects on feelings toward the ex-partner and self-esteem. We expect to replicate and extend previous findings that individuals who have broken up will experience initially high levels of distress, as well as anger and preoccupation with the ex-partner, and that these feelings will decline over time and eventually level off. Conversely, we expect that recently separated individuals will initially report low feelings of self-worth and low levels of acceptance of the breakup in the immediate aftermath, and that these feelings will increase and then level off.

In addition, we expect that initial emotional responses will be intensified among individuals who were in a highly committed or longer-lasting relationship or who were dumped, and that their recovery will be slower than those who were in a less committed

or shorter relationship or who initiated the breakup themselves. Finally, we will examine gender differences in these processes. Because of males' general propensity to have higher levels of global (Kling, Hyde, Showers, & Buswell, 1999) and performance (Gentile, Grabe, Dolan-Pascoe, Twenge, Wells, & Maitino, 2009) self-esteem than females, we predict that males will have higher reports of all three measures of self-esteem over time. However, given the mixed results reported in the literature to date on gender differences in the emotional experiences after a breakup, we offer no specific hypotheses regarding these effects.

Effects on motives for sexual behavior. In the present study, we expect to find that recently separated individuals will report heightened levels of avoidant or maladaptive sex motives initially, and that these motivations will wane over time, following a course similar to the trajectories for negative emotional responses and low self-esteem thought to drive, at least in part, the experience of these motives. In contrast, we expect no particular pattern over time for enhancement motives, which are not thought to be responsive to transient mood states but are more likely a reflection of underlying differences in sensation or novelty seeking (Cooper et al., 1998). Predictions for intimacy motives are less clear, however, in that intimacy motives are also not thought to be responsive primarily to transient mood states. Nevertheless, recently separated individuals may not feel ready to seek intimacy in a new relationship in the immediate aftermath of a breakup, thus suggesting the possibility that intimacy motives might be lower at the outset and then increase or gradually recover to a more normal level.

Finally, because avoidant motives are thought to be driven by the experience of negative emotions, we would expect similar effects for initiator status and relationship quality and length on avoidant motive trajectories. Regarding gender differences, although past research indicates that men report higher levels of all motives, on average, except intimacy for which women tend to report higher levels (Cooper et al., 1998), it is not clear whether the basic pattern of changes over time should differ by gender. Thus, gender interactions will be tested, but no specific predictions are offered.

Effects on sexual experiences. To the extent that rebound lore is accurate, we expect that individuals will have a higher number of sex partners in the immediate aftermath of a breakup, and then gradually decline over time eventually reverting back to a more normative level. Also consistent with popular beliefs about rebound sex, we expect that individuals who were dumped or were in longer or more committed relationships will have more sex partners at the outset than those who initiated the breakup, and will show a slower return to baseline levels over time. Finally, research on gender differences in sexual behaviors consistently shows that men report more sex partners than women (Hyde & Oliver, 2000; Oliver & Hyde, 1993; Rao & Demaris, 1995), and this difference was observed in the one study that examined sexual behavior in the aftermath of a breakup as well (Wade & DeLamater, 2002). Thus, we expect that men will have a higher number of sex partners than women initially as well as across time. However, we do not necessarily expect the patterns of change to differ, though this possibility will also be examined.

Additionally, we will explore the experience of sexual desire. One might argue that desire for sex should be stronger in the immediate aftermath of a breakup because of

the stronger needs that sex might serve for individuals who are in a heightened state of distress. However, one can desire or need sex for many different reasons, and other reasons (e.g., to establish an intimate connection), as previously discussed, might follow the opposite course (i.e., start lower and recover to more normal levels). For these reasons, we offer no hypotheses regarding changes in sexual desire after a breakup.

Effects on transition to a new relationship. In addition, we also explore the transition to a new relationship, though clear predictions cannot be made for this outcome. Although rebound lore suggests that people get back into relationships prematurely because of their neediness, this does not necessarily mean that they get back into a relationship immediately. Getting back into a relationship depends partly on the opportunity, and opportunities should, on average, be more likely to emerge as time goes on. Thus, we examine patterns of change in the transition to a new relationship but offer no specific predictions.

Mediation of effects on sex motives and sexual behavior. Popular beliefs about the rebound phenomenon assume that increases in negative emotions in the aftermath of a breakup cause people to have sex for all sorts of maladaptive reasons and that these reasons at least in part lead to poor sexual decision making and increases in sexual risk-taking. In the present study, these possibilities will be examined following guidelines for testing mediation in multilevel models (Krull & MacKinnon, 2001) to the extent that the basic patterns of results for emotional response, sex motives, and sexual behavior are consistent with the meditational hypothesis.

Method

Initial Sample of Participants

Participants in the present study were selected from the Psychology 1000 Research Pool based on responses to a mass testing survey. To be eligible, participants had to meet the following criteria: (1) be at least 18 years old; (2) self-identify as heterosexual; (3) had had sex at least once in their lifetime; (4) had broken up from a romantic relationship in the past year; and (5) not be in a relationship at the outset of the study. Students who met eligibility criteria were then contacted via email and telephone to verify their eligibility and determine their interest in participating. A total of 196 individuals (64% female) met the above criteria and agreed to participate in the study. These individuals were 18.3 years old on average, and had broken up an average of 15.7 weeks ago (range = .5 to 59 weeks) at the outset of the study. Together these participants contributed a total of 2150 weekly reports. However, 11 of these participants got back into a relationship with their ex-partner during the first 2 weeks of the study. Given the primary focus on rebound sex, which by definition cannot occur with the ex-partner, these individuals were dropped from the study. Twenty additional participants got back into a relationship with their ex-partner at some later point during the study, and data for these individuals were removed from the week that they first indicated that they were back with their ex-partner. Altogether this resulted in dropping 238 weekly reports (11% of the total reports).

Once these data were removed, only 15 of the remaining 185 individuals (8%) had broken up with their partner more than 8 months ago at the outset. Given the small number of participants beyond 8 months and the difficulty of reliably characterizing the recovery process beyond 8 months with so few respondents, these 15 participants were

also dropped resulting in a final sample of 170 participants who contributed a total of 1695 weekly reports.

Final Sample of Participants and Experiences

The final sample of 170 participants was 66% female, 88% Caucasian, and 18.3 years old on average. Participants' most recent relationship had lasted an average of 13.5 months and the breakup occurred an average of 12.9 weeks ago (range = .5 to 33 wks) at the time of the first report. Gender comparisons revealed that males did not differ significantly from females on duration of the most recent relationship (13.1 vs. 13.5 months, $t = .209, p > .80$) or time since the breakup (12.7 vs. 13.0 weeks, $t = .216, p > .80$). As previously indicated, these participants contributed a total of 1695 weekly reports, or an average of 10 per participant. This represents an overall completion rate of 82% of all possible reports that participants could have completed during the diary phase of the study.

All analyses were based on the final sample of 170 individuals and 1695 weekly reports, except for analyses of sexual partners, sexual desire, and sexual motives. Analyses of sexual partners were restricted to the subset that had sex at least once during the course of the study (115 of 170 participants, 1105 of 1695 weekly reports). Analyses of sex motives (from sex with someone other than the ex-partner) were restricted to the same subset of 115 individuals. However, because sex motives were measured only during weeks when individuals actually had sex, analyses of sex motives were based on a sample of 313 weekly reports of sex with an "other" (i.e., non-ex) partner. Conversely, analyses of sexual desire included the entire sample of 170 participants regardless of

whether they had sex during the study. However, reports of sexual desire were assessed only during weeks when individuals did not have sex, or a total of 1107 weekly reports.

Procedure

Participants completed three different phases of the study including an initial training session, a 10-12 week online diary phase, and a brief exit interview. Depending on when an individual enrolled in the study, he/she participated in the weekly online diary phase for 10, 11, or 12 weeks. Participants were compensated for participation using a combination of research credits, money, and lottery tickets. To encourage maximum participation, a graduated payment scale was used such that those who completed the highest percentage of surveys possible received the highest compensation.

Initial orientation session. During the initial one-hour session, an overview of the study, including compensation, was provided. The content of each of the surveys (initial, weekly, and exit) was described, and examples of the most sensitive questions (e.g., on sexual behavior) were provided. Participants were given an opportunity to ask questions, and then asked to read and sign the informed consent form. An initial online survey, which took approximately 30 minutes, was then completed. Afterwards, participants were again asked if they had questions, reminded of when they would receive their first weekly survey, and excused.

Weekly online survey phase. Each week during the weekly online or diary phase of the study, participants were sent an e-mail containing a link to the survey. E-mails were sent Wednesday afternoons, and participants could complete the survey anytime between 11:00 p.m. that night and 7:00 p.m. the following day (i.e., Thursday). The exact questions participants received in the weekly surveys varied from week to week,

depending on the participant's behavior during the past week. However, regardless of their specific behaviors, the weekly survey was designed to take about 20 minutes to complete. For example, if a participant reported that she or he had not had sex in the past week, then an alternate set of questions was asked to ensure that the survey took approximately the same amount of time to complete. This was done so as to avoid inadvertently encouraging respondents to answer "no" to questions that triggered a set of contingent questions (cf., Kessler, 1995).

Exit session. After completing the final weekly survey, participants were scheduled via telephone to attend a 15-20 minute exit session. During this session, participants completed an exit survey, were fully debriefed on the nature of the study, and had the opportunity to speak directly with research staff about their participation and have their photograph taken. Participants were given information on the total number of weekly surveys they had completed and the compensation (in credit hours, money, lottery tickets, or some combination thereof) to which they were entitled as a result. Participants were then compensated, thanked, and excused.

Measures

Items used in the present study can be found in Appendix B. Means, standard deviations, minimum/maximum values, skew, and kurtosis for all variables are presented in Table 1. All items were scored so that higher scores equal more of the measured construct.

Relationship and breakup characteristics. Information regarding the relationship and the breakup itself was collected in the initial survey. The month and year of the breakup, but not the exact day or date were assessed. Thus, for the purposes of

calculating an exact number of weeks since the breakup, it was assumed that all breakups occurred on the 15th of the month, unless the respondent indicated that the breakup had occurred within the past week in which case a time of .5 weeks was assigned.

Two items assessed the extent to which the ex-partner initiated the breakup and wanted the breakup on a 1 (“It was completely my idea/I wanted the breakup much more than my ex-partner did”) to 5 (“It was completely my ex-partner’s idea/My ex-partner wanted the breakup much more than I did”) scale. The mid-point of the scale was defined as both parties wanting or initiating the breakup equally. Because higher scores on this measure mean that the partner, more than the respondent, wanted or initiated the breakup, we refer to this as a measure of “partner initiation.”

Relationship commitment was assessed by three items indexing the extent to which the individual was more involved and committed to the relationship than the ex-partner and viewed the relationship as more important. All items were assessed on a 1 (“my ex-partner much more than me”) to 5 (“I much more than my ex-partner”) scale. The mid-point denoted that both partners were involved in or committed to the relationship equally. Thus, higher scores indicated greater commitment by the respondent. Finally, duration of the most recent relationship was assessed by one item asking the number of months the relationship with the ex-partner had lasted (range = 1 to 42 months).

Internal consistency reliabilities and between-person correlations among these variables are shown in Table 2. As shown, most of the correlations were quite small in size with the exception of the correlation between relationship commitment and partner initiation, which was moderate in size.

Feelings about the ex-partner. Feelings toward the ex-partner were assessed in the initial survey and in each weekly report thereafter. Four different feelings were assessed: (1) distress about the breakup and love for the ex-partner; (2) obsessive thoughts about the ex-partner; (3) anger and desire for revenge; and (4) acceptance of the breakup. Items were either created for this study or adapted from Davis et al. (2003) and Rubin (1973). In the initial survey, participants indicated the extent to which they had experienced each emotion in the past few weeks on a 7-point scale, where 1 = Not at all, and 7 = Extremely/A great deal. In the weekly survey, respondents indicated the extent to which they had experienced each emotion in the past week on the same 7-point Likert scale.

To ascertain whether these items assessed distinct emotional responses to the breakup, a maximum likelihood factor analysis was estimated with oblique rotation. Results revealed three factors with eigenvalues greater than 1, but the scree plot suggested four factors. An additional factor analysis forcing four factors accounted for 77.2% of the variance. Examination of the pattern matrix showed that six items assessing the extent to which the participant was distressed by the breakup, in love with the ex-partner, and wanted to get back together loaded (at or above .68) on a distress/love factor. Three items assessing how often the participant thought, day-dreamed, or dreamt about their ex-partner loaded (at or above .44) on an obsessive thoughts factor. Two items assessing whether the participant experienced angry or vengeful feelings toward the ex-partner loaded (at or above .84) on an anger/revenge subscale. Finally, three items assessing the extent to which the participant felt the relationship was not meant to be, had 'let go' of the ex-partner and moved on, and felt relief he/she was no longer with the ex-partner loaded (at or above .42) on an acceptance factor.

As shown in Table 3, all measures were moderately to highly reliable, but nevertheless exhibited varying amounts of stable between-person variance (as indicated by the intra-class correlations). In particular, obsessive thoughts were highly variable from week to week, and exhibited little stable between-person variance. The fact that obsessive thoughts had a relatively high rate of endorsement (see Table 1) coupled with the high variability suggests that many if not most people experienced obsessive thoughts, but that they tended to do so intermittently, rather than consistently from week to week. Anger/revenge also showed only modest between-person stability. However, this might be an artifact of the low base rate of endorsement for these items.

Finally, within-person correlations among these feeling states are reported in Table 4. As shown, several of these feelings covary modestly across weeks, while variation in the other feeling states was largely independent. For example, feelings of distress/love and obsessive thoughts tended to covary positively across weeks, whereas feelings of distress/love and obsessive thoughts covaried negatively with acceptance. Feelings of anger/revenge, in contrast, did not covary with the remaining feeling states, possibly owing to the low base rate of endorsement.

Self-esteem. Self-esteem in the past day (for weekly reports) or in general (for the initial report) was measured in three domains – social, appearance, and performance – by the Heatherton and Polivy (1991) state self-esteem measure. Subscales were computed according to the published scale, with the exception that three items (2 on the social scale and 1 on the performance scale) that did not load at or above .40 on their intended factors were dropped.

In the present study, *performance self-esteem* was measured by three items assessing the extent to which the participant felt he/she was as smart as others and was confident that he/she had understood things in the past day. *Appearance self-esteem* was measured by four items assessing the extent to which the participant felt attractive and was satisfied with his/her appearance and the way his/her body looked. Lastly, *social self-esteem* was measured by three items assessing the extent to which the participant was concerned about looking foolish or was worried about what others thought of him/her in the past day. All responses were provided on a 1 (“strongly disagree”) to 6 (“strongly agree”) scale.

As shown in Table 3, subscale alphas were acceptably high. Intraclass correlations were also consistently high, indicating that the majority of the variance in the three self-esteem measures existed at the between-person rather than the within-person level (see Table 3). Finally, as indicated by the small and non-significant within-person correlations among the three self-esteem measures shown in Table 4, facets of self-esteem covaried largely independently across weeks, a finding that might reflect the fact that little variance existed at the within-person level to covary across weeks.

Motives for sexual behavior in the past week. Motives for sex were assessed by five of the six subscales from Cooper et al.’s (1998) sex motives questionnaire (all but peer approval motives, which appear to be relevant primarily among young adolescents and for initial sexual experiences; see Cooper et al., 1998). Each motive was assessed by a composite of the 2 to 3 highest loading items on that scale in Cooper and colleagues’ original study (1998). Respondents rated the extent to which they had sex with each partner in the past week to: (1) achieve or increase intimacy (e.g., “to feel emotionally

close to your partner”); (2) for pleasure or excitement (a factor Cooper and colleagues [1998] called, “enhancement,” e.g., “because it feels good”); (3) to cope (e.g., “to cheer up or to feel better”); (4) to self-affirm (e.g., “to reassure yourself of your desirability”); or (5) to gain or retain the partner’s good will (e.g., “out of fear your partner wouldn’t love you anymore or would be mad”). In addition, four items were created to assess revenge (e.g., “to ‘get back’ at your ex-partner”) and rebound (e.g., “to help you ‘get over’ your ex-partner and the breakup”) motives for sex. Sex motives were assessed each week of the study in which participants reported having a sexual experience (either oral sex or intercourse, as described below). Motive items were rated on a 7-point scale (1 = *Not at all*, 7 = *Extremely/A great deal*) indicating the degree to which the individual had sex for each of the stated reasons.

Including all sex motive items in a maximum likelihood factor analysis with oblique rotation revealed that all items loaded on their intended factors, including the four newly created items which loaded cleanly on separate rebound and revenge sex factors (i.e., primary loadings at or above .81, secondary loadings at or below .23). All scales evidenced adequate reliability (see Table 3), particularly when considered in light of the shortened format. Within-person correlations among the motives were negligible to modest, as shown in Table 4. However, the pattern of effects was unexpected in that approach motives were marginally related to several of the avoidant motives, but not to each other. Specifically, intimacy was positively related to self-affirmation, and enhancement was positively related to self-affirmation and coping motives, but the two approach motives did not covary together. Avoidant motives also did not covary

significantly among themselves, which could reflect the low base rates of endorsement for many of these motives.

For analytic purposes, a mean of relevant items (e.g., the three coping motive items) was computed. In addition, rebound, revenge, and partner approval motives were dichotomized to indicate any (1) vs. no (0) endorsement of the respective motive. This was done because items comprising these scales were highly skewed, with two-thirds or more of weekly responses to the respective items comprising these scales having a mean of 0¹.

Sexual experiences in the past week. The number of sexual partners in the past week was assessed by a single item asking how many partners the participant had had oral sex and/or intercourse with in the past week. Because only 11 instances of two or more partners were reported in a given week across the entire study, a dichotomy indicating no partners vs. any partners was used as the outcome in all growth curve analyses. However, to capture information about the number of different partners, a count of the number of different partners reported across the entire study was also computed. Respondents reported 1.1 different partners, on average, with a range from 0 to 7. However, several outliers caused this variable to be skewed, and thus we truncated the distribution for a final range of 0 to 4 different sex partners.

Because rebound lore suggests that individuals are more likely to have a casual sex partner after a breakup, respondents also reported the degree to which they were interested in each partner primarily as a short-term, casual vs. a longer-term, more serious partner. Specifically, respondents were asked to rate the extent to which he or she was interested in that person as a possible long-term partner (1 = *Not at all*, 7 = *Extremely/A*

great deal). For analytic purposes, responses at or below the midpoint of the scale (i.e., 1 – 4) were used to identify a partner as “casual,” whereas responses above the mid-point (i.e., 5 – 7) were used to identify partners as serious. We felt that using this item on long-term interest to determine casual vs. serious partners was a better choice than using either a short-term interest item or a composite of both short-term and long-term interest.

On those weeks when the participant did not have sex, desire for sex in the past week was instead rated on a 6-point scale, ranging from 0 = *Not at all* to 5 = *A great deal*.

Transition to a new relationship. Finally, the transition into a new relationship was assessed by one item asking whether the participant considered themselves to be “moving back into a romantic relationship” or currently in one (1 = no, 2 = maybe, 3 = yes). Those who indicated they were maybe or definitely back in a relationship were asked who that relationship partner was (ex-partner, someone they used to date prior to ex-partner, someone new). As previously mentioned, individuals who stated they were back in a relationship with their ex-partner had data removed from that week and beyond. Thus, this variable assesses the transition into a new relationship.

Overview of Analyses

Hierarchical linear modeling (HLM version 6; Raudenbush, Bryk, Cheong, & Congdon, 2004) was used to describe patterns of change in weekly measures across the 10 to 12 week period. Patterns of change in feelings about the ex-partner, self-esteem, sex motives, and sexual and close relationship experiences (modeled at Level 1) were nested within individuals (modeled at Level 2), and predicted as a function of time since the breakup (range = .5 to 34 weeks). Time since breakup, rather than week in study, was used as the primary independent variable for two reasons: (1) It is the primary theoretical

variable of interest and (2) participants were heterogeneous at week 1 of the study with regard to how long ago the breakup occurred (range = .5 to 33 weeks). Thus the obtained growth curves are best regarded as “synthetic” growth curves, in that they reflect a composite of within-person change and between-person differences in how long ago the breakup occurred prior to the first weekly report (see Mehta & West, 2000, for a discussion of issues associated with this type of growth model). Put differently, participants contributed 10 to 12 weeks of data to different time points along the 0 to 8 month breakup time ago curve. Time since breakup was centered at 4 weeks in all analyses. Although a few initial reports were provided three or fewer weeks post-breakup, centering time since breakup at 4 weeks provided a more stable solution.

Base growth model. Base growth models characterize the prototypical (or average) course of recovery following the breakup of a romantic relationship. In the present study, the basic growth model consists of three terms: an intercept, or the average level of the outcome at week 4 across all participants; a linear growth component, assessing linear change from week 4; and a quadratic component, assessing the eventual slowing or leveling off of change predicted for most outcomes.

Covariates only model. Time of day when the survey was filled out (i.e., a.m. vs. p.m.) and Thanksgiving break were treated as time varying covariates and modeled at Level 1 (L1). The former was included to control for diurnal mood effects (Watts, Cox, & Robson, 1983) and the latter to control for any possible consequences of seeing or talking with the ex-partner or other changes in routine which might have occurred over Thanksgiving break. Gender, freshman (vs. more advanced) standing, and week of the semester in which the first weekly report was filed (i.e., week 4, 5, or 6) were modeled at

Level 2 (L2). Freshman standing and starting week of the semester were controlled to help rule out adjustment-to-school effects that typically occur during the first semester of college (Gall, Evans, & Bellerose, 2000).

Preliminary analyses were conducted in which each component of the growth curve (i.e., the intercept, linear term, and quadratic term) served as the dependent measure and was predicted from the covariates. Significant terms were retained in the final covariates only model for each dependent measure.

Primary analyses. The three primary predictors—partner initiation of the breakup, relationship commitment, and relationship duration—are fixed attributes of the past relationship, and as such were modeled at L2. Effects for these attributes were evaluated in a series of analyses in which the intercept, linear, and quadratic components of the growth curve were predicted by one of the three primary variables of interest, controlling for all relevant L1 and L2 covariates (as described above). In addition, squared terms were added to the L2 prediction equation for partner initiation and relationship commitment to test for possible non-linearities in the relationship between these variables and components of the growth curve. Both variables were assessed on response scales in which the two ends of the scale indicated unequal (but opposite) commitment to the relationship or desire for the breakup, whereas the midpoint indicated equal commitment or initiation. Inclusion of the squared component therefore tests for the possibility that equal desire/commitment does not lie half way in between the two types of inequality, but instead reflects a distinct psychological situation with consequences that differ qualitatively (not just quantitatively) from the relationship circumstances described by the two poles.

Effects on the intercept test whether variation in the predictor is associated with average levels of the outcome at week 4 – for example, whether individuals whose relationships lasted longer were more upset on average at 4 weeks post-breakup. Significant effects on the linear and quadratic components indicate the presence of cross-level interactions, which signify that the relevant aspect of change over time (either the linear or the quadratic component) varied reliably as a function of the L2 predictor. For example, a significant effect for partner initiation on the linear component of revenge sex motives would indicate that the rate of linear change in revenge motives increased (if the coefficient was positive) or decreased (if the coefficient was negative) with increasing levels of the partner initiation variable. According to Bryk and Raudenbush (1992), developing trimmed models leads to more stable and trustworthy parameter estimates. Thus, full models including all higher-order terms were initially tested; non-significant higher-order terms were then dropped to develop trimmed models in which only significant effects, or lower-order effects required to provide valid tests of significant higher-order effects, were retained.

Finally, to determine whether the patterns of differential change conformed to expectation, separate growth curves were estimated (from the final trimmed model) for all models in which significant cross-level interactions were obtained. For example, in models where the partner initiation variable predicted either the linear or quadratic component of the growth curve, separate growth curves were estimated for those who wanted the breakup more than the ex-partner (the 15th percentile on partner initiation, or a value of 1) as well as for those whose partner wanted the breakup more (the 85th percentile on partner initiation, or a value of 4). In cases where commitment or partner

initiation exerted a significant curvilinear effect on either the linear or quadratic component of the growth curve, a third growth curve was plotted for those in relationships where both partners were equally interested in breaking up or were equally committed.

Results

Base Growth Curve Models

A total of 17 multilevel models was estimated, one for each of the outcomes examined in the present study. Results for the final trimmed models are summarized in Table 5.

Feelings toward the Ex-Partner

Adjusted mean levels of endorsement collapsed across weeks and individuals are shown in the first column. As shown, levels of both obsessive thoughts and anger/revenge were relatively low at four weeks post-breakup, whereas feelings of both distress/love and acceptance were higher indicating that the latter feelings are more normative than the former. Nevertheless, all intercept coefficients were significantly different from 0, or in the case of anger/revenge (a dichotomy) the odds of endorsement (i.e., ever experiencing the emotion) were significantly less than .50/.50. Examination of the linear components (shown in the 2nd column) indicates that distress, obsessive thoughts, and anger each decreased over time. The linear trend for acceptance was not, however, significant indicating that acceptance of the breakup did not change on average between 4 and 34 weeks post-breakup. Lastly, significant quadratic effects were found for both distress and obsessive thoughts, indicating that the decrease in these feelings decelerated or ‘leveled off’ over time. Figure 1 provides an illustrative example of

changes over time in feelings for the ex-partner. As shown, decline in obsessive thoughts reached its lowest level at 7.4 months (31 weeks) post-breakup, whereas decline in distress over the ex-partner (not shown) leveled off at about 6.7 months (28 weeks) after the breakup.

Self-Esteem

As shown in Table 5, participants reported moderately high levels of performance self-esteem (4.1 on a 6-point scale), and somewhat lower (though still above the mid-point) levels of appearance self-esteem at four weeks post-breakup. Only levels of social self-esteem were below the mid-point on the 6-point scale. Nevertheless, all levels were significantly greater than zero. Examination of the linear growth coefficients showed, as expected, that levels of performance and social self-esteem increased over time, though contrary to expectation, appearance self-esteem did not change over time. Finally, there were no significant quadratic effects for any of the three self-esteem measures.

Approach Sex Motives

As shown in the 3rd panel of Table 5, both enhancement and intimacy were endorsed at levels similar to those reported in past studies (e.g., Cooper et al., 1998, Study 2), thus suggesting that individuals do not experience decrements in these motives as a result of a romantic breakup, as expected. Also consistent with this idea, neither motive showed a change in level across time.

Avoidance Sex Motives

Results of analyses examining change over time in the five avoidant sex motives are shown in the 4th panel of Table 5. As shown, significant intercept effects revealed that participants endorsed nonzero levels of coping and self-affirmation motives at four weeks

post-breakup, and that the odds of endorsing revenge motives were significantly less than .50/.50. However, the odds of endorsing partner approval and rebound motives did not differ significantly from .50/.50. In general, the rank order of endorsement among motives that have been previously studied was similar to that observed in past samples (e.g., Cooper et al., 1998) – that is, coping motives were more strongly endorsed than self-affirmation motives which were more strongly endorsed than partner approval motives (mean for partner approval prior to dichotomizing = 1.36). The fact that rebound and revenge motives were even less strongly endorsed than partner approval motives indicates that these motives are relatively unusual and non-normative. Additionally, and as expected, sex motives for coping, partner approval, rebound, and revenge declined significantly over time. Only self-affirmation remained at a constant level over time. Finally, there were no significant quadratic trends in any of the avoidance motives.

Sexual Experiences

Results for the next set of growth curve models examined initial levels and change over time in sexual experiences. As shown in Table 5, the adjusted mean for sexual desire was 1.01, which corresponds to “just a little” on the 0 (not at all) to 5 (a great deal) scale, and this value significantly differed from 0. The exact probability of having a sex partner at week 4 was .30, and this probability significantly differed from .50/.50. As shown in the second and third columns of Table 5 and counter to prediction, the likelihood of having intercourse did not change over time. Additionally, although we made no predictions about desire, level of sexual desire declined over time.

Transition to a New Relationship

Finally, as shown in Table 5, the mean level on this variable at 4 weeks fell half way in between 1 ('not in a relationship') and 2 ('maybe in a relationship'), and this value significantly differed from 0. Interestingly, however, the mean rate of endorsement did not change over time, indicating that there was no general movement toward getting into a new relationship over the course of the study.

Differences in Recovery due to Gender

Although gender is treated primarily as a covariate, it is of interest to ask whether men and women respond in a similar manner to the loss of a romantic relationship. Thus, we begin by considering the results for gender. Please note that because few gender differences were observed, these results were not tabled.

Feelings toward the Ex-Partner

Results of analyses in which gender (at L2) predicted the intercept, slope, and quadratic components of each of the feeling trajectories revealed only a single significant effect: Gender significantly predicted the intercept of acceptance ($b = -.511, p < .05$). Thus, females reported more acceptance of the breakup than males at four weeks post-breakup, a difference which persisted across time, as indicated by the non-significant gender effects on the linear and quadratic components.

Self-Esteem

Results for analyses testing gender differences revealed only two intercept effects on self-esteem, for performance ($b = .418, p < .01$) and appearance ($b = .750, p < .001$); Males reported higher performance and appearance self-esteem than females in the immediate aftermath of the breakup, and these differences remained over time (again as indicated by a non-significant gender effect on the linear and quadratic terms). It is

unclear whether this difference reflects static differences in the self-esteem of men and women (Gentile et al., 2009; Kling et al., 1999) or whether this difference reflects differential response to the breakup in which females' self-esteem suffers more than that of males.

Approach Sex Motives

The only gender effect to emerge was an intercept effect for intimacy motives ($b = -1.013, p < .01$) showing that females endorsed intimacy motives more strongly than males, and this difference persisted across time as indicated by a nonsignificant gender effect on both the linear and quadratic components of growth in intimacy. Given that this finding has been observed in other studies (Cooper et al., 1998), it seems likely that the present result reflects static differences between genders rather than differential response to the breakup.

Avoidance Sex Motives

Analyses testing for gender differences on the intercept, linear, and quadratic terms revealed only two marginally significant effects: Males endorsed lower levels of self-affirmation ($b = -.547, p < .10$) but higher levels of revenge ($b = 1.003, p < .10$) motives than females at four weeks post-breakup. Additionally, these gender differences persisted over time (as evidenced by non-significant gender effects on linear and quadratic components of both motive measures). Although there is no precedent for interpreting gender differences in revenge motives, past research suggests that men report higher levels of self-affirmation motives than women (Cooper et al., 1998), which raises the possibility that women are more likely than men to have sex to re-affirm their attractiveness in the aftermath of a breakup.

Sexual Experiences

Somewhat surprisingly, given the consistent differences in sexual behavior observed in past research, no gender differences were found in the likelihood of having a sex partner or in sexual desire either initially or across time. In this case, the lack of differences suggests the possibility that men and women did respond differentially to the breakup in such a way that typical differences were erased. For example, men might have experienced a decrement in sexual desire and partners and/or women might have experienced an increase. Unfortunately the present data cannot adjudicate between these possibilities.

Transition to a New Relationship

Although no differences were found on this variable at 4 weeks, gender did predict the pattern of linear change across time in the transition to a new relationship. As shown in Figure 2, females showed increased movement into a new relationship over time, whereas no change was found among males.

Differences in Recovery due to Characteristics of the Relationship and the Breakup

Feelings toward the Ex-Partner

A series of 12 multilevel models was estimated to determine if the course of recovery from breakup differed systematically as a function of characteristics of the relationship with the ex-partner and of the breakup itself (i.e., 3 relationship/breakup predictors X 4 feeling outcomes).

Partner initiation. As shown in Table 6 (first two rows), partner initiation had a significant effect on all four intercepts. Consistent with expectation, individuals whose partners initiated the breakup reported more distress/love, obsessive thoughts, and

anger/revenge, and less acceptance at four weeks post-breakup. Partner initiation also significantly predicted rates of linear growth in distress and acceptance. As illustrated in Figure 3 (top panel) and consistent with expectation, those who were dumped reported significantly higher levels of distress at the outset than those who initiated the breakup. However, they declined at a faster rate such that their levels of distress converged at about 28 weeks with those who initiated the breakup. Similarly, those whose partner initiated the breakup reported less acceptance at the outset than their counterparts who initiated the breakup. Additionally, their acceptance increased over time whereas acceptance among those who initiated the breakup decreased over time. This trend was qualified, however, by a significant initiation squared effect on the intercept. As shown in Figure 3 (bottom panel), individuals from couples in which both partners equally initiated the breakup initially experienced levels of acceptance that were between those who initiated the breakup or were dumped, and remained at that level across time, converging with levels reported by those who themselves initiated the breakup by 34 weeks. Finally, the fact that partner initiation did not predict differential growth in either obsessive thoughts or anger/revenge means that individuals who were dumped continued to obsess over their ex-partners more and to feel more anger and a stronger desire for revenge than those who initiated the breakup.

Together, these data suggest that individuals who were dumped experience greater psychological distress and are less accepting of the breakup in the immediate aftermath of the breakup. However, initial differences in feelings of distress/love and in acceptance appear to dissipate by about 28 weeks (7 months) after the breakup. In

contrast, individuals who were dumped remained more angry, vengeful, and obsessed with thoughts of the ex-partner than those who initiated the breakup even after 8 months.

Relationship commitment. Results for unequal commitment to the most recent relationship are summarized in Table 6, rows 3 and 4. As shown, those who were more committed to their relationship experienced more anger/vengeance, and these differences were maintained across time, as indicated by the lack of a significant effect on either the linear or quadratic component of change in anger/vengeance. The remaining three effects were more complex, however, as each included one or more quadratic effects for commitment (i.e., commitment squared).

Plotting these interactions showed that, individuals who broke up from relationships in which both partners were equally committed looked more similar (in terms of initial levels and patterns of growth) in distress and obsessive thoughts to those who broke up from relationships to which they were more committed than the partner. Nevertheless, feelings among all three subgroups tended to converge by week 25. Figure 4 illustrates this pattern for feelings of distress/love (top panel). In contrast to this pattern, individuals who were equally committed to the relationship reported no change in acceptance over time whereas those who were more committed reported increases and those who were less committed reported decreases in acceptance, as shown in the bottom panel of Figure 4. Although initially differing in acceptance levels, all three of these subgroups converged around 19 weeks post-breakup.

Relationship duration. Results for relationship duration are shown in the bottom row of Table 6. As shown, relationship duration significantly predicted initial levels of distress/love, obsessive thoughts, and acceptance such that those individuals whose most

recent relationship had lasted longer reported greater distress and obsessive thoughts as well as lower acceptance at four weeks post-breakup than those in shorter relationships. Moreover, the fact that duration did not predict either linear or quadratic growth in these outcomes indicates that these differences persisted across time. Interestingly, however, relationship duration did not predict feelings of anger post-breakup.

Self-Esteem

A total of 9 models (3 predictors X 3 self-esteem outcomes) were tested examining effects of relationship and breakup characteristics on both initial levels and changes over time in the three aspects of self-esteem. As shown in Table 7 (rows 1 and 2), there were no significant effects on any of the terms indicating there were no differences either initially or over time in the self-esteem of those who initiated the breakup vs. those who were dumped. Likewise, there were no effects for relationship commitment.

Relationship duration, however, affected patterns of change over time in both performance and appearance self-esteem (see bottom row of Table 7). Although performance self-esteem does not differ at 4 weeks post-breakup among individuals who broke up from relationships that varied in length (as indicated by the non-significant intercept effect), those who were in shorter relationships showed little change over time whereas those in longer relationships showed a fairly steep decrease after about 16 weeks post-breakup (see Figure 5, top panel). Finally, as shown in Figure 5 (bottom panel) rates of change differed significantly as a function of relationship duration such that those who were in longer-standing relationships reported higher (though not significantly higher) levels of appearance self-esteem at 4 weeks, but then declined more over time than those

who were in shorter-term relationships. In contrast, appearance self-esteem showed little change over time among those who were in shorter relationships.

Approach Sex Motives

A total of 6 models (3 predictors X 2 motives) were estimated to test the effects of relationship and breakup characteristics on approach sex motives. Consistent with expectation, we found no effects of partner initiation on the intercept, linear, or quadratic terms for either of the approach sex motives. Also as expected, there were no effects for relationship duration on the change over time in approach sex motives.

However, two effects were found for relationship commitment. As shown in Table 8, row 3, individuals who were more committed to the relationship than their ex-partner were significantly less likely to have sex for intimacy reasons at 4 weeks post-breakup than those whose partners were more committed to the relationship, and these differences persisted over time, as indicated by non-significant commitment effects on the linear and quadratic terms. Although not specifically predicted, this effect may reflect the fact that individuals who were highly invested in their past relationship are not ready at 4 weeks post-breakup to have sex for intimacy reasons.

As shown in Table 8, changes over time in enhancement reasons as a function of commitment equality were more complex, as indicated by the presence of both significant linear and quadratic terms for commitment. Plotting this interaction (not shown) revealed that although initial levels of enhancement motives for sex did not differ as a function of commitment equality (as indicated by the nonsignificant intercept in Table 8), those who were more committed to the relationship had both a steeper increase and a steeper decrease in enhancement motives over time than those whose ex-partner

was more committed. Nevertheless, although the patterns of change significantly differed from one another, it is not clear how much substantive significance to attribute to the different growth patterns given that the two groups did not differ significantly in predicted levels of enhancement motives at any point in time between 4 weeks and 34 weeks.

Avoidant Sex Motives

Results for four of the five avoidant sex motives are summarized in Table 9. None of the breakup or relationship characteristics predicted initial levels, or any component of change over time, in partner approval motives. Thus, results for partner approval motives are not included in Table 9.

Partner initiation. As shown (see top row), partner initiation was consistently related to both initial levels and change in levels of all four avoidant sex motives. As expected, partner initiation had a significant positive effect on all intercepts indicating that those who were dumped endorsed higher levels of coping, self-affirmation, rebound, and revenge motives for sex at four weeks post-breakup. Partner initiation also predicted rates of linear growth such that those whose were dumped showed steeper decreases in their levels of endorsement of all four motives relative to those who initiated the breakup. Plotting these equations revealed that the trajectories for coping and self-affirmation motives, both of which were characterized by a significant negative linear component and a significant positive quadratic component, were similar in form. Figure 6 (top panel) illustrates this pattern for change over time in self-affirmation motives. As shown, individuals who were dumped reported higher levels of self-affirmation motives initially but then declined at a steeper rate such that differences between those who themselves

initiated vs. those whose partner initiated the breakup were no longer significant after about week 13.

Trajectories for rebound and revenge motives among those who initiated the breakup vs. were dumped were also similar; both trajectories were characterized by a significant intercept difference and by significantly different rates of decline over time. The pattern is illustrated for rebound reasons in Figure 6 (bottom panel). As shown, those who were dumped were significantly more likely to report having sex to get over the ex-partner than those who initiated the breakup. However, rates of endorsement among those who were dumped decreased much more steeply such that initial differences were erased by 22 weeks post-breakup. Overall then those who were dumped were more likely to have sex for avoidant reasons initially, but these differences dissipated over the first five months after the breakup.

Relationship commitment. As shown in the middle portion of Table 9, and in contrast to results for partner initiation of the breakup, there were relatively few effects for relationship commitment. As expected, those who were more committed to the relationship than their ex-partner endorsed higher rates of coping and self-affirmation sex motives at four weeks post-breakup than those whose ex-partner was more committed to the relationship. Furthermore, these commitment differences persisted over time (as indicated by non-significant commitment effects on the linear and quadratic terms). Interestingly, there were no differences in commitment level on rebound or revenge motives.

Relationship duration. Finally, and contrary to expectation, there were no effects of relationship duration on any of the intercept, linear, or quadratic terms for these motive measures.

Analyses of Differences in Sexual Experiences Collapsed across Weeks

To start, differences between those who ever over the course of the study had sex, had sex with a casual partner, or had sex with a serious partner as well as differences in the number of different partners were examined as a function of partner initiation, commitment, and relationship duration, controlling for gender, start week, and freshman standing. Together these analyses address issues concerning the type and number of different partners individuals had over time, and whether these behaviors were riskier among those who were dumped, were more committed to their relationships, or were in longer-lasting relationships. Although each of these outcomes were examined on a weekly basis, the occurrence of sex with a specific type of partner was sufficiently rare to render growth curve analyses potentially unstable. Moreover, the number of different partners can only be analyzed as a cumulative outcome. The three dichotomous outcomes were analyzed in logistic regression, whereas the total number of partners which ranged from 0 to 4 was analyzed in ordinary least squares regression. Results of these analyses are summarized in Table 10.

As shown in the top panel of Table 10, females were more likely than males to have sex with a serious partner as well as with any partner during the study. However, there were no gender differences in those who had sex with a casual partner vs. not. Likewise, gender did not significantly predict the total number of different sex partners one had during the study. As for relationship and breakup characteristics (shown in the

middle panel), only one significant effect emerged for the four dependent variables.

Those who broke up from a longer-lasting relationship were more likely to have a casual sex partner during the study than those who broke up from shorter relationships. Thus, although the overall pattern of effects was weak, this particular effect is in line with rebound lore.

Growth Curve Analyses of Differences in Sexual Experiences

The results of growth curve analyses examining trajectories of change in sexual experiences as a function of relationship and breakup characteristics are summarized in Table 11.

Partner initiation. As shown in the top row, partner initiation had a significant effect on the intercept of the probability of having sex in a given week. However, the effect was contrary to prediction – individuals who were dumped were less likely to have sex at four weeks post-breakup than were those who initiated the breakup, with the probabilities for those who were dumped vs. initiated the breakup equaling .11 and .23, respectively. Moreover, these differences persisted over time as indicated by the nonsignificant effects on the linear and quadratic components of growth. Finally, partner initiation had no significant effects on any of the growth terms for sexual desire.

Relationship commitment. As shown in Table 11, those who were more committed to the relationship were less likely to have a sex partner four weeks post-breakup. However, the growth trajectories were complicated by a significant commitment squared effect on the linear and quadratic growth components. As shown in Figure 7, those who were equally committed to the relationship were similar (in intercept and overall pattern) to those individuals who were more committed to the relationship. These

two groups, on average, showed a slight but non-significant change in the likelihood of having sex over time. However, those who were less committed than their ex-partner were more likely to have sex four weeks post-breakup than the other two subgroups. This likelihood declined over the first 16 weeks, leveled off, and then increased. Lastly, relationship commitment had no significant effect on sexual desire.

Relationship duration. Finally, there were no effects of relationship duration on any of the intercept, linear, or quadratic terms for these sexual experiences.

Transition to a New Relationship

Finally, as shown in Table 11, partner initiation had no significant effect on transition to a new relationship, nor did relationship duration. However, relationship commitment significantly predicted intercept differences in the transition to a new relationship such that individuals who were more committed to their previous relationship were less likely to transition into a new relationship at four weeks post-breakup relative to those who were less committed to the relationship, and these differences persisted across time.

Mediation of Effects on Sex Motives and Sexual Behavior

According to Baron and Kenny (1986), three pre-conditions must be met in order to establish mediation. First, the putative cause or causes (in the present case, relationship and breakup characteristics) must be related to the outcomes of interest (in this case, sexual motives, sexual behavior, and relationship transition). Examining the data in Tables 8 through 11 reveals a number of effects that might be mediated. These are, however, primarily intercept differences in sexual motives, and a few linear change effects. In addition, there were two effects of commitment on intercept differences in the

probability of having sex and transitioning into a new relationship, and one effect of partner initiation on intercept differences in the probability of having sex. However, there were no effects for any of the relationship or breakup characteristics on sexual desire.

Second, the putative cause or causes must be related to the putative mediators (in this case, emotional responses and self-esteem). Examining the data in Tables 6 and 7 reveals a number of associations between the putative IVs and emotional response. Specifically, there were 10 intercept effects of relationship and breakup characteristics on emotional responses and 5 linear effects. However, there were only two effects, both involving the effects of relationship duration, on linear growth in self-esteem.

And finally, the putative mediators must be related to the outcomes. Examining the data in Table 4 reveals only four significant or marginally significant effects: feelings of distress/love covaried positively with having sex to get over the ex-partner and with sexual desire; obsessive thoughts also covaried positively with sexual desire; and acceptance covaried positively with enhancement motives.

When these patterns are considered together, only two possible mediation pathways are suggested:

- (1) The effects of partner initiation on the probability of having sex to get over the ex-partner might be mediated by feelings of distress/love;
- (2) The effects of relationship commitment on having sex for enhancement might be mediated by feelings of acceptance.

One final series of models was run to determine if, in fact, these feelings did mediate the effects of relationship and breakup characteristics on these particular motivations. Specifically, analyses similar to those reported in Tables 8 and 9 were re-estimated with the addition of either feelings of distress/love or acceptance added to the model. Complete mediation by these feelings would be indicated if the relevant

relationship or breakup characteristic effects were no longer significant in this model; partial mediation would be indicated if the effects were reduced but still significant.

Results showed that the linear effect of partner initiation on sex to get over the ex is no longer significant when distress/love is added to the model; thus, distress/love completely mediates the effect of partner initiation on rebound sex. In other words, those who were dumped experience greater distress after the breakup, and it is through this distress pathway that they are more likely to have sex to get over the ex-partner. Similarly, the linear effect of commitment on enhancement sex motives was reduced, though still marginally significant, when controlling for acceptance, thus causing partial mediation. That is, those who were more committed to the relationship reported more acceptance of the breakup, which in part lead to their endorsement of enhancement motives for sex.

Discussion

The present study used a longitudinal, online diary methodology to explore the validity of widely held beliefs about sexual experience in the aftermath of a romantic relationship breakup (“rebound sex”). We collected data from 170 individuals who had broken up from a relationship in the past 8 months on their emotional, relationship, and sexual experiences as well as motives for sexual behavior after the breakup. Overall, results of the present study provide mixed support for popular beliefs about the rebound phenomenon, suggesting that people are more likely to have sex for a variety of maladaptive reasons in the aftermath of a romantic relationship breakup especially if they were “dumped” or were in a highly committed or long-standing relationship. However,

there was no evidence that such individuals got into new relationships precipitously or that they had more sex or more indiscriminant sex.

Effects on Feelings toward the Ex-Partner

As expected, the present study replicated previous findings that individuals experience heightened distress, obsessive thoughts, and anger in the immediate aftermath of a breakup, and that the intensity of these feelings abates over time. In the case of distress and obsessive thoughts, responses were found to level off between 5 and 6 months post-breakup, possibly signaling that most people achieve a level of emotional comfort with their situation by that time.

Whereas feelings of anger/revenge were the least normative of the emotional responses examined in the present study, these feelings declined over the course of the study but never leveled off. In light of findings from earlier studies that feelings of anger and revenge persist longer than feelings of sadness (Sbarra & Emery, 2005), these data suggest that the minority of individuals who experience angry, vengeful feelings (20% in the present study) may have a particularly difficult time putting the lost relationship behind them. Given that only a minority of people experience angry, vengeful feelings, examining individual differences (e.g., low agreeableness) that distinguish those who do from those who don't represents one potentially fruitful avenue for future research.

Finally, and contrary to expectation, acceptance of the breakup was moderately high at the outset and did not change, on average, over time even though it covaried inversely with feelings of distress/love and obsessive thoughts across time. The fact that acceptance did not show a trend over time whereas clear temporal trends were observed for the remaining emotional responses to breakup seems at first incongruous. However,

perhaps people achieve a degree of cognitive acceptance relatively soon after the breakup, whereas mastering their emotional response takes longer. Alternatively, feelings of acceptance may increase at some later date, perhaps following rather than preceding emotional responses. Either way, exploring the dynamic interplay between the emotional and more cognitive aspects of recovery from breakup represents an intriguing avenue for future research.

The present study also replicated results from past studies showing that the intensity of all of these responses was stronger at the outset among those who were dumped or had been in a more committed or longer-lasting relationship. However, feelings of distress/love and obsessive thoughts tended to converge over time among these subgroups such that initial differences were erased by 25 to 28 weeks post-breakup. Thus, although being dumped or losing a particularly meaningful relationship may hurt more initially, most individuals reach similar levels of adjustment by the 6-month mark.

Neither acceptance nor feelings of anger and revenge followed this path, however. Indeed, there was some evidence that although people who were dumped or broke up from a more meaningful relationship were initially less accepting, they ultimately become even more accepting of the loss, perhaps eventually convincing themselves that they are better off without the relationship. In contrast, initial differences between these subgroups in anger/revenge persisted across time, again pointing to the possibility that stable individual differences contribute to this pattern of responding.

Overall, these data replicate and extend findings from previous research, showing that individuals experience heightened negative affect following a relationship breakup; that these response are more intense among those who were dumped or lost particularly

meaningful relationships; and finally that the intensity of at least the more normative feelings abates by about 6 months post-breakup.

Effects on Self-Esteem

As predicted, people's views of themselves as efficacious, intellectually competent, and socially skilled apparently suffered in the immediate aftermath of the breakup but then increased in positivity over the course of the study. Whether they reached normative levels by the end of the study is unclear, however, as these feelings of self-worth never reached an asymptote. In contrast, levels of appearance self-esteem did not change over time, suggesting that how people feel about their looks was unaffected by the breakup, at least on average.

Also counter to expectation, both initial levels and patterns of change in feelings of self-worth were unaffected by being dumped and by losing a relationship to which one was highly committed. Indeed, in the only effects observed on self-esteem, individuals from longer-lasting relationships experienced decreases over time (rather than increases, as one would expect in a recovery process) in performance and appearance self-esteem. Although it is not clear what this means, one could speculate that people who broke up from long-standing relationships and were not yet back in a new relationship by 5 or more months after the breakup had begun to doubt their ability to attract a new mate and thus experienced delayed decrements in self-confidence. Alternatively, it is possible that individuals who broke up from long-standing relationships resisted accepting the breakup initially and were only somewhat belatedly coming to terms with their loss. However, if this were the case, one would expect to see a similar pattern for feelings toward the ex-

partner, yet no effects whatsoever were found for relationship duration on patterns of change over time in feelings toward the ex-partner.

Overall, these findings provide some support for the popular belief that at least some aspects of one's self-esteem suffer in the aftermath of a breakup. However, findings were not as robust as one might expect, perhaps owing to the relatively high stability observed in self-esteem reports across weeks in the present study (see Table 3). Future research using a self-esteem scale that is more sensitive to the effects of situational and environmental contingencies might provide a better test of the role of self-esteem in relationship loss.

Effects on Sex Motives

Consistent with expectation, people were initially more likely to have sex to cope with distress, to please or appease their (new) partner, or to get over or get back at the ex-partner, and these motives declined over the course of the study. Also as expected, they were no more or less likely to have sex for intimacy and enhancement reasons as time passed. Contrary to expectation, however, people were also no more or less likely to have sex to self-affirm over time. Together these data provide clear support for common rebound lore, suggesting that people do indeed use sex in the aftermath of a breakup to help them cope with their feelings of distress and to get over or get back at their ex-partners. However, contrary to rebound lore (but consistent with the generally weak results obtained for self-esteem), they do not appear to use sex to boost their self-esteem or prove their attractiveness.

Also consistent with rebound lore, individuals who were dumped were especially likely to use sex to cope with their distress, to self-affirm, and to get over or get back at

their ex-partner. Although those who were more committed to the relationship consistently endorsed higher rates of coping and self-affirmation motives, there were no other effects for relationship commitment, nor counter to expectation were there any effects for relationship duration.

Effects on Sexual Experiences

Contrary to rebound lore, we found no evidence that individuals were on average more likely to have sex right after the breakup. Moreover, also contrary to prediction, individuals who were dumped or were more committed to their past relationship were actually less likely to have sex right after the breakup than those who initiated the breakup or were less committed.

Although no predictions were made regarding sexual desire, desire did decline over time, though neither initial levels nor rates of decline were affected by characteristics of the relationship or of the breakup. Although beliefs about sexual desire are largely absent from discussion of rebound phenomena, trends in desire over time appear to be more consistent with rebound lore than actual sex behavior.

Effects on Transition to a New Relationship

Finally, although no predictions were made regarding transitions into a new relationship, we found that individuals who were less rather than more committed to the relationship were more likely to transition into a new relationship. Although counter to the popular belief that individuals who are most distressed should be most likely to jump into a new relationship, it may be the case instead that the people who were least committed to their ex-partner left their prior relationship in part to get into a new relationship.

Summary

Overall, results of the present study suggest a more nuanced view of the rebound phenomenon. Consistent with rebound beliefs, individuals do experience heightened distress, obsessive thoughts about the ex-partner, and feelings of anger/vengeance as well as lowered social self-esteem in the immediate aftermath of a breakup, especially if they were dumped or had been involved in a more committed or longer-lasting relationship. People are also more desirous of sex in the immediate aftermath of a breakup, and when they do have sex they are more likely to have sex to cope with negative emotions, and to get over or get back at their ex-partner, again especially if they were dumped or had been in a more committed relationship. Qualitative differences such as these might well set the stage for emotionally unfulfilling sexual experiences (Cooper et al., 2008), as well as lack of preparedness, poor communication and increased risk of unprotected sex (Cooper et al., 1998). However, there was little evidence that individuals were actually more likely to have sex or have sex with a casual or risky partner, or to jump into a new relationship right after the breakup, regardless of characteristics of the relationship or the breakup.

Taken together, these data suggest that people may indeed be more vulnerable to poor decision making in the aftermath of a breakup, as rebound lore suggests. They are distressed, they have diminished feelings of self-worth, and they want to have sex, but lack of opportunities, inexperience, or personal restraint may prevent most individuals from acting on these feelings. Nevertheless when people do have sex, they are more likely to do so for reasons that put them at heightened risk for a variety of negative outcomes. In short, rebound lore appears to reflect a real phenomenon at the psychological level, though the prevalence of actual rebound sex is most likely low. This

is in fact consistent with the previously cited national survey showing that only 10% to 20% of people reported ever in their lifetime having rebound sex. However, the fact that this phenomenon appears to be uncommon in the aftermath of a breakup makes it no less potentially damaging to those who actually do it.

Do Men and Women Respond Similarly to Relationship Breakups?

Consistent with results of past research, few reliable differences were found in the present study between men and women in the nature or intensity of their responses to the loss of a romantic relationship. Indeed, the few differences that were observed were simple main effect differences – for example, men and women differed in static levels of self-esteem and intimacy motives for sex – that may well reflect pre-existing or ongoing differences between men and women rather than differences in how they respond to the breakup of a relationship. In the only possible exceptions to this pattern, women reported greater acceptance of the breakup at four weeks and were also less likely to report having sex to get back at their ex-partner. Women were also more likely to transition into a new relationship than men. Overall these results suggest that to the extent that gender differences exist, women may handle the loss somewhat more adaptively than men, though data on the quality of the new relationships were not available.

Strengths and Limitations of the Present Study

The current research replicates and extends past research in several important ways. First, these data replicate results of past studies on the nature of emotional responses to a breakup and extend them over time, thus providing the most compelling evidence to date on the trajectory of emotional recovery from a romantic relationship breakup. The fact that our findings on emotional response, and to an extent self-esteem,

corroborate the results of past research serves to increase confidence in the validity of our basic methodology as well as in those results which are new to this study (e.g., on sex motives).

Second, the present study provides ground-breaking research on the motivational and behavioral consequences of a breakup. To date, no other study has used prospective data to assess the sexual motives and behaviors of people “on the rebound,” and thus, the current study makes an important contribution to the literature on relationship breakups.

Finally, the present study points to an important limitation on the rebound phenomena. Specifically, although people appear to be vulnerable to poor sexual decision making in the aftermath of a breakup, as rebound lore suggests, actual occurrences of rebound sex appear relatively rare either because of lack of opportunity or experience, or because of restraint exercised at the individual level.

Although our study used a rigorous and fine-tuned approach to studying the rebound sex phenomenon, it was not without limitations. First, only a few participants had broken up in the three weeks prior to participation. Thus, we have little data documenting the first month after the breakup, and individuals may be the most vulnerable during this initial time period. Future studies should aim to collect data from individuals as soon as possible after the breakup, though this is methodologically challenging.

Second, there were few quadratic effects suggesting that either we did not have enough power to detect them or that the leveling off we expected occurs on average later than we studied. However, for the two outcomes where we observed significant quadratic effects, the data suggest that the leveling off occurs between 28 and 32 weeks post-

breakup. Similarly, we did not see many effects for changes in self-esteem. This may be due to the fact that most of the variance was at the between-person level for the self-esteem measures, which indicates that people did not vary much from week to week. Perhaps future research should use a more immediate time frame (e.g., self-esteem right now) in order to better capture fluctuations in self-esteem.

Additionally, because our sample was limited to undergraduate students, most of who were breaking up from a high school relationship, the results of this study may not generalize to either other populations or to breakups from other types of relationships (e.g., longer-standing or more committed ones).

Related to this issue, the predominant use of first-time college students introduces ambiguity into the results. To what extent were observed changes due to the transition to college itself vs. recovery from the breakup? It is difficult to answer this question definitively, even though we controlled for several markers of the transition process (e.g., freshman standing, start week). However, the fact that our findings were both theoretically and empirically consistent with what is known about the psychological sequelae of a relationship breakup serves to at least somewhat allay this concern. Nevertheless, future research using a control group of entering freshmen who did not experience a recent breakup would enable clearer inferences about recovery from breakup trajectories as distinct from adjustment to college effects.

Additionally, to the extent that these participants broke up from their previous relationship because of this life transition, then results of this study may not generalize to breakups that occurred for other reasons. However, those who broke up because of the transition to college (e.g., "I wanted to start college as a single person"; $n = 63$) did not

significantly differ from those who broke up for other reasons (e.g., “because we fell out of love”; $n = 107$) on our primary predictors (i.e., partner initiation, commitment, relationship duration) or on gender or age. Nevertheless a more careful investigation of the effects of reasons for the breakup represents a potentially informative direction for future research.

Because there were several limitations that can be addressed by future research, including using a non-college student sample, daily and event-contingent reports, and collecting data immediately after the breakup, replicating these findings in the same or a different type of population would provide a more complete and nuanced picture of the potentially important role that sexual motivations and behavior play in the aftermath of a romantic relationship breakup, at least among some individuals.

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Appendix A

Websites Accessed during Online Search of Rebound Phenomenon

<http://answers.yahoo.com/question/index?qid=20060730161544AAmAZof>
<http://answers.yahoo.com/question/index?qid=20080106012853AAXlhKu>
<http://answers.yahoo.com/question/index?qid=20080508194124AAsjjcU>
<http://christian-dating-service-plus.com/rebound-relationships-dating-advice.htm>
<http://everything2.com/index.pl?node=rebound>
<http://forums.comicbookresources.com/archive/index.php/t-56151.html>
<http://forums.plentyoffish.com/datingPosts59067.aspx>
<http://groups.teenhelp.org/showthread.php?t=35558>
<http://metachat.org/index.php/2005/07/11/p820>
<http://singleinthecity1.blogspot.com/2007/04/next-stop-rebound.html>
<http://teenadvice.about.com/library/teenquiz/43/blreboundquiz.htm>
<http://vixentales.blogspot.com/2006/01/vixens-thoughts-on-being-rebound.html>
[http://wiki.answers.com/Q/How_long_do_rebound_relationships_based_on_sex_usually_
last_when_both_people_are_on_the_rebound](http://wiki.answers.com/Q/How_long_do_rebound_relationships_based_on_sex_usually_last_when_both_people_are_on_the_rebound)
http://wiki.answers.com/Q/What_is_a_rebound_relationship
http://www.askmen.com/dating/player_60/99_love_games.html
<http://www.drmichelle.com/reboundlove.htm>
<http://www.enotalone.com/forum/showthread.php?t=116525>
<http://www.forbeginners.info/dating/rebound-relationships.htm>
<http://www.godlikeproductions.com/forum1/message495568/pg1>
<http://www.helium.com/tm/267986/rebound-lives-whether-actually>

<http://www.neighborbeeblog.com/?tag=sex-and-the-city>

http://www.ojar.com/view_13829.htm

http://www.ojar.com/view_34260.htm

http://www.ojar.com/view_6064_15.htm

http://www.relationship-institute.com/freearticles_detail.cfm?article_ID=529

http://www.therelationshipgym.com/rebound_relationship.htm

[http://www.thesite.org/sexandrelationships/askthesiteqandas/relationshipsqandas/
flirtyfriend](http://www.thesite.org/sexandrelationships/askthesiteqandas/relationshipsqandas/flirtyfriend)

<http://www.thesite.org/sexandrelationships/singles/onthepull/ontherebound>

<http://www.urbandictionary.com/define.php?term=Pre-bounding&defid=3144061>

<http://www.yourdictionary.com/rebound>

In the past week, how relieved did you feel that you are no longer with your ex-partner?

Use following scale for Obsessive Thoughts:

1. many times a day
2. once or twice a day
3. almost every day
4. 3 or 4 times a week
5. 2 times a week
6. 1 time a week
7. not at all

4. Obsessive Thoughts (all three items reverse coded)

In the past week, how often did you day-dream about your ex-partner?

How often did you dream about your ex-partner during the past week?

How often did you think about your ex-partner in the past week?

Self-Esteem

Use following scale for performance, appearance, and social scales:

1. Strongly Disagree
2. Disagree
3. Slightly Disagree
4. Slightly Agree
5. Agree
6. Strongly Agree

1. Performance

I feel as smart as others.

I feel confident that I understand things.

I feel that I have less scholastic ability right now than others. (reverse coded)

2. Appearance

I am dissatisfied with my weight. (reverse coded)

I am pleased with my appearance right now.

I feel unattractive. (reverse coded)

I feel satisfied with the way my body looks right now.

3. Social

I am worried about what other people think of me. (reverse coded)

I feel concerned about the impression I am making. (reverse coded)

I am worried about looking foolish. (reverse coded)

Relationship Factors

1. Partner Initiation

Use following scale for who initiated the breakup:

1. It was completely my idea.
2. It was mostly my idea.
3. It was a mutual decision.
4. It was mostly my partner's idea.
5. It was completely my partner's idea.

Who initiated the relationship breakup?

Use following scale for who wanted the breakup:

1. I wanted to breakup much more than my ex-partner did
2. I wanted to breakup a little more than my ex-partner did
3. We both wanted to breakup about the same amount
4. My ex-partner wanted to breakup a little more than I did
5. My ex-partner wanted to breakup much more than I did
6. Neither of us wanted to breakup

While you were still in the relationship, how much did you want to breakup

compared to how much your ex-partner wanted to end the relationship?

To what extent did you have sex to cheer up or to feel better?

To what extent did you have sex to feel better when you were lonely?

4. Self-Affirmation

To what extent did you have sex to reassure yourself of your desirability?

To what extent did you have sex to prove to yourself that your partner thinks
you're attractive?

5. Partner Approval

To what extent did you have sex because your partner wanted to?

To what extent did you have sex out of fear your partner wouldn't love you
anymore or would be mad?

6. Revenge

To what extent did you have sex to "get back" at your ex-partner?

To what extent did you have sex to make your ex-partner jealous?

7. Get Over (only assessed if sex partner was not most recent ex-partner)

To what extent did you have sex to forget about your ex-partner?

To what extent did you have sex to help you "get over" your ex-partner and the
breakup?

Footnote

¹Analyses were initially conducted using an unaltered version of these variables to determine how robust results were across the two different operationalizations. Results were in fact quite similar, except that predicted values tended to go outside the range of possible values using the unaltered versions of the variables, presumably due to the skewed nature of these variables. For this reason, results are reported using the dichotomized versions only.

Table 1

Descriptive Information for Predictor and Dependent Variables

Variable	Mean (SD)	min, max	skew	kurtosis	N
Predictor variables					
Breakup time ago (weeks)	12.9 (7.69)	-3.57, 30.0	.369	-.676	1695
Gender	.340 (.473)	0, 1	.704	-1.52	170
Partner initiation	2.56 (1.11)	1, 5	.286	-.852	170
Commitment	1.99 (.705)	1, 3	.016	-.969	170
Relationship duration	13.37 (11.23)	1, 42	1.01	.033	170
Feelings toward ex-partner					
Distress/love	2.55 (1.64)	1, 7	.947	-.141	1662
Obsessive thoughts	2.89 (1.66)	1, 7	.549	-.811	1674
Anger/vengeance	.197 (.398)	0, 1	1.53	.335	1663
Acceptance	4.19 (1.89)	1, 7	.003	-1.17	1660
Self-esteem					
Performance	4.28 (.963)	1, 6	-.521	-.025	1667
Appearance	3.60 (1.17)	1, 6	-.213	-.610	1666
Social	3.27 (1.16)	1, 6	.314	-.523	1668
Sex motives					
Intimacy	3.47 (2.01)	1, 7	.344	-1.151	311

Variable	Mean (SD)	min, max	skew	kurtosis	N
Enhancement	4.63 (1.68)	1, 7	-.315	-.824	313
Coping	1.87 (1.14)	1, 5.33	1.34	.974	312
Self-affirmation	2.23 (1.68)	1, 7	1.31	.718	313
Partner approval	.259 (.439)	0, 1	1.11	-.780	313
Rebound	.211 (.409)	0, 1	1.42	.029	313
Revenge	.138 (.345)	0, 1	2.11	2.47	312
Sexual/relationship experiences					
Sexual desire	.663 (.843)	0, 2	.702	-1.23	1106
P. of sex partner	.275 (.447)	0, 1	1.01	-.985	1105
Transition to new relationship	1.51 (.709)	1, 3	1.04	-.293	1490

Table 2

Correlations among Level 2 Predictor Variables

Variable	1	2	3	4
1. Gender	—	.02	-.15	-.02
2. Partner initiation		(.75)	.42	-.13
3. Commitment			(.88)	-.16
4. Relationship duration				—

Note. Cronbach's alphas (α , in parentheses) are entered along the diagonal, when appropriate.

Table 3

Scale Reliabilities and Intra-class Correlations for Dependent Variables

Variable	Internal consistency estimate (# items)	Intra-class correlation
Feelings toward ex-partner		
Distress/love	.93 (6)	.601
Obsessive thoughts	.81 (3)	.301
Anger/revenge	.86 (2)	.438
Acceptance	.79 (3)	.575
Self-esteem		
Performance	.83 (3)	.606
Appearance	.89 (4)	.749
Social	.86 (3)	.729
Sex motives		
Intimacy	.91 (3)	.539
Enhancement	.80 (3)	.543
Coping	.73 (3)	.521
Self-affirmation	.89 (2)	.662
Partner approval	.73 (2)	.328
Rebound	.79 (2)	.568
Revenge	.79 (2)	.528

Variable	Internal consistency estimate (# items)	Intra-class correlation
Sexual/relationship experiences		
Sexual desire	N/A	.353
P. of sex partner	N/A	.243
Transition to new relationship	N/A	.557

Table 4
Within Person Correlations among Dependent Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
<i>Feelings about ex-partner</i>																		
1. Distress/ love	—	.32**	.02	-.24*	-.07	-.01	-.09	-.13	-.30	.34	.36	-.15	.81*	--	-.07	.19†	-.12	
2. Obsessive thoughts	—	.08	-.17†	.04	.03	-.05	-.26	-.23	.17	-.13	.00	.51	--	-.02	.17†	-.09		
3. Anger/revenge	—	.03	-.04	-.03	-.12	-.40	-.26	-.25	.05	--	--	--	--	-.11	.04	.03		
4. Acceptance	—	-.02	.00	-.03	.01	.36*	-.09	-.08	-.15	-.26	--	.06	-.08	.10				
<i>Self-esteem</i>																		
5. Performance	—	.13	.03	.02	.26	.04	-.30	.13	-.23	-.31	.05	.01	.10					
6. Appearance	—	.04	.09	.10	-.21	.03	-.14	-.19	-.02	-.04	-.01	.11						
7. Social	—	-.01	.17	-.12	-.14	.04	-.43	-.04	.01	-.05	.07							
<i>Sex motives</i>																		
8. Intimacy	—	.08	-.05	.34†	.06	-.31	--	N/A	N/A	.17								

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
9. Enhancement									—	.35†	.35†	-.15	-.21	.06	N/A	N/A	.10
10. Coping									—		.21	.08	.51	--	N/A	N/A	-.42†
11. Self-affirm									—			-.17	.04	-.10	N/A	N/A	-.02
12. Partner approval									—			--	--	N/A	N/A	N/A	-.09
13. Rebound									—			--	--	N/A	N/A	N/A	-.29
14. Revenge									—			--	--	N/A	N/A	N/A	--
Sexual/relationship experiences																	
15. P. of sex partner									—							N/A	.12
16. Sexual desire									—								.06
17. Transition to new relationship									—								—

Note. Cases where there were not enough responses (i.e., less than 6) with variation on both variables to compute a reliable correlation are denoted as “--” in this table.
 † = $p < .10$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 5

Base Growth Curve Models for Change over Time in the Primary Outcomes Since the Breakup

Variable	Intercept	Linear	Quadratic
Feelings toward ex-partner			
Distress/love	4.112***	-.174***	.0036***
Obsessive thoughts	.050***	-.126***	.0022*
Anger/revenge	-.820** (.306)	-.041**	--
Acceptance	4.134***	--	--
Self-esteem			
Performance	4.111***	.012*	--
Appearance	3.602***	--	--
Social	2.876***	.030***	--
Approach sex motives			
Intimacy	3.365***	--	--
Enhancement	4.656***	--	--
Avoidance sex motives			
Coping	2.367***	-.021 †	--
Self-affirmation	2.184***	--	--
Partner approval	-.132 (.467)	-.049*	--
Rebound	-.627 (.348)	-.061*	--

Variable	Intercept	Linear	Quadratic
Revenge	-1.22* (.228)	-.061*	--
	Sexual/relationship experiences		
Sexual desire	1.012***	-.028***	--
P. of sex partner	-.889*** (.291)	--	--
Transition to new relationship	1.449***	--	--

Note. The base model includes the intercept (centered at 4 weeks post-breakup; I), linear breakup time ago (L), and quadratic breakup time ago (i.e., breakup time ago-squared; Q). These are trimmed base models such that if a higher-order term was not significant at $p < .05$, then it was deleted from the model and denoted as "--" in this table. Tabled coefficients are unstandardized. Rebound and Revenge are dichotomous variables, and probabilities are located in parentheses below the logistic coefficients.

† = $p < .10$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 6
Growth Curve Models Predicting Change in Feelings toward Ex-Partner over Time Since the Breakup as a function of Relationship and Breakup Characteristics

Covariate	Distress/love			Obsessive thoughts			Anger/revenge			Acceptance		
	I	L	Q	I	L	Q	I	L	Q	I	L	Q
Part. Init.	.537***	-.021*	--	.159*	--	--	.369*	--	--	-1.745**	.039**	--
							(.591)					
Part. Init. SQ	--	--	--	--	--	--	--	--	--	.170*	--	--
Commit.	1.673**	-.088**	--	.216	.324	-.0159*	.314*	--	--	-1.585***	.031**	--
							(.578)					
Commit. SQ	-.161*	.009*	--	-.048	-.077	.0039*	--	--	--	.134**	--	--
Rel. Duration	.024**	--	--	.014*	--	--	--	--	--	-.021*	--	--

Note. The base model includes the intercept (centered at 4 weeks post-breakup; I), linear breakup time ago (L), and quadratic breakup time ago (i.e., breakup time ago-squared; Q). These are trimmed base models such that if a higher-order term was not significant at $p < .05$, then it was deleted from the model and denoted as "--" in this table. Tabled coefficients are unstandardized. Anger/revenge is a dichotomous variable, and probabilities are located in parentheses below the logistic coefficient. * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 7
Growth Curve Models Predicting Change in Self-Esteem over Time Since the Breakup as a function of Relationship and Breakup Characteristics

Covariate	Performance		Appearance			Social		
	I	L	I	L	Q	I	L	Q
Part. Init.	--	--	--	--	--	--	--	--
Part. Init. SQ	--	--	--	--	--	--	--	--
Commit.	--	--	--	--	--	--	--	--
Commit. SQ	--	--	--	--	--	--	--	--
Rel. Duration	-.005	.002*	-.0001**	.014	-.001*	--	--	--

Note. The base model includes the intercept (centered at 4 weeks post-breakup; I), linear breakup time ago (L), and quadratic breakup time ago (i.e., breakup time ago-squared; Q). These are trimmed base models such that if a higher-order term was not significant at $p < .05$, then it was deleted from the model and denoted as "--" in this table. Tabled coefficients are unstandardized.
 * = $p < .05$, ** = $p < .01$, *** = $p < .001$

Table 8
Growth Curve Models Predicting Change in Approach Sex Motives over Time Since the Breakup as a function of Relationship and Breakup Characteristics

Covariate	Intimacy			Enhancement		
	I	L	Q	I	L	Q
Part. Init.	--	--	--	--	--	--
Part. Init. SQ	--	--	--	--	--	--
Commit.	-.260*	--	--	-.406	.103*	-.0040*
Commit. SQ	--	--	--	--	--	--
Rel. Duration	--	--	--	--	--	--

Note. The base model includes the intercept (centered at 4 weeks post-breakup; I), linear breakup time ago (L), and quadratic breakup time ago (i.e., breakup time ago-squared; Q). These are trimmed base models such that if a higher-order term was not significant at $p < .05$, then it was deleted from the model and denoted as "--" in this table. Tabled coefficients are unstandardized.
 * = $p < .05$, ** = $p < .01$, *** = $p < .001$

Table 9
Growth Curve Models Predicting Change in Avoidance Sex Motives over Time Since the Breakup as a function of Relationship and Breakup Characteristics

Covariate	Coping			Self-Affirmation			Rebound			Revenge		
	I	L	Q	I	L	Q	I	L	Q	I	L	Q
Part. Init.	1.006***	-.150***	.0044**	.851**	-.125**	.0037***	1.077* (.746)	-.058*	--	1.966* (.877)	-.282*	.0086*
Part. Init. SQ	--	--	--	--	--	--	--	--	--	--	--	--
Commit.	.355**	--	--	.220*	--	--	--	--	--	--	--	--
Commit. SQ	--	--	--	--	--	--	--	--	--	--	--	--
Rel. Duration	--	--	--	--	--	--	--	--	--	--	--	--

Note. The base model includes the intercept (centered at 4 weeks post-breakup; I), linear breakup time ago (L), and quadratic breakup time ago (i.e., breakup time ago-squared; Q). These are trimmed base models such that if a higher-order term was not significant at $p < .05$, then it was deleted from the model and denoted as “--” in this table. Tabled coefficients are unstandardized. Rebound and Revenge are dichotomous variables, and probabilities are located in parentheses below the logistic coefficients.
 * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 10

Regression Analyses Predicting Having Sex, a Casual Partner, or a Serious Partner, and the Total Number of Sex Partners over the Course of the Study.

Partners Variable	Ever Sex	Ever Casual	Ever Serious	Total
Gender	-.724* (.485)	-.109 (.896)	-1.418*** (.242)	-.239 (-.110)
Step 1 (χ^2 or R^2)	6.923†	2.294	19.302***	.032
Partner Initiation	-.055 (.946)	.022 (1.023)	-.282 (.754)	-.068 (-.074)
Commitment	-.095 (.910)	.083 (1.086)	-.055 (.947)	.047 (.032)
Relationship Duration	.021 (1.021)	.032* (1.032)	.014 (1.014)	-.002 (-.020)
Step 2 (χ^2 or R^2)	2.380	4.676	5.268	.036
Model (χ^2 , or R^2 change)	9.303	6.970	24.570***	.005

Note. Unstandardized b's are presented in table with odds ratios or, for total partners, Betas in parentheses.

† = $p < .10$, * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Table 11
Growth Curve Models Predicting Change in Sexual and Relationship Experiences over Time Since the Breakup as a function of Relationship and Breakup Characteristics

Covariate	P. of sex partner			Sexual desire			Transition to new relationship		
	I	L	Q	I	L	Q	I	L	Q
Part. Init.	-.295* (.427)	--	--	--	--	--	--	--	--
Part. Init. SQ	--	--	--	--	--	--	--	--	--
Commit.	-8.735** (.0002)	1.430**	-.0436**	--	--	--	-.130*	--	--
Commit. SQ	1.957** (.876)	-.319**	.0094**	--	--	--	--	--	--
Rel. Duration	--	--	--	--	--	--	--	--	--

Note. The base model includes the intercept (centered at 4 weeks post-breakup; I), linear breakup time ago (L), and quadratic breakup time ago (i.e., breakup time ago-squared; Q). These are trimmed base models such that if a higher-order term was not significant at $p < .05$, then it was deleted from the model and denoted as "--" in this table. Tabled coefficients are unstandardized. P. of other sex partner is a dichotomous variable, and probabilities are located in parentheses below the logistic coefficient. * = $p < .05$, ** = $p < .01$, *** = $p < .001$.

Figure 1

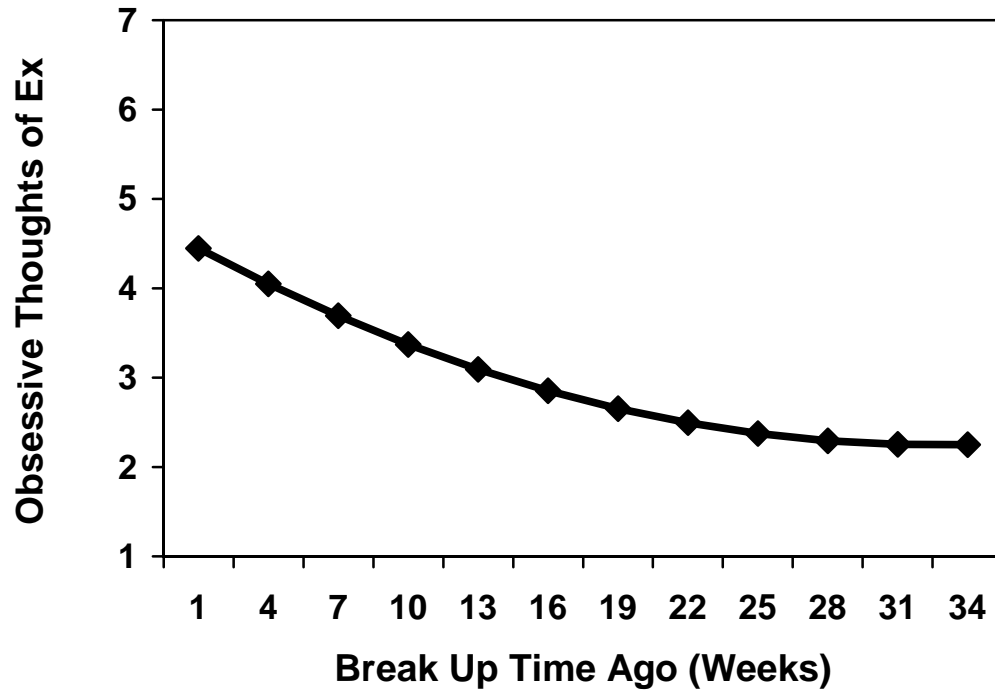


Figure 2

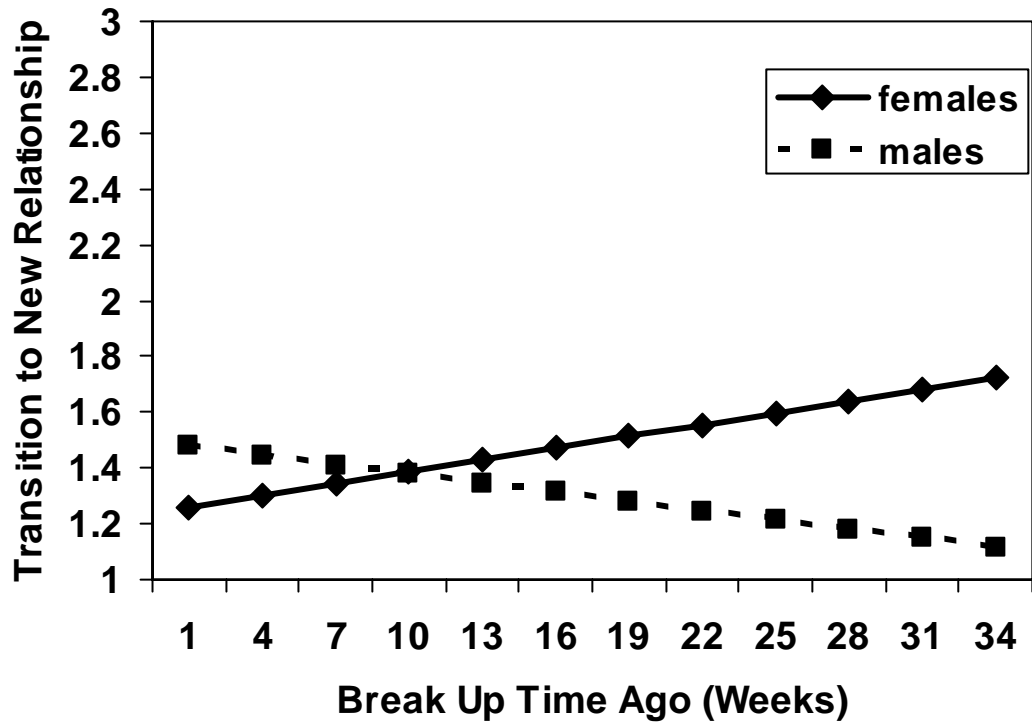


Figure 3

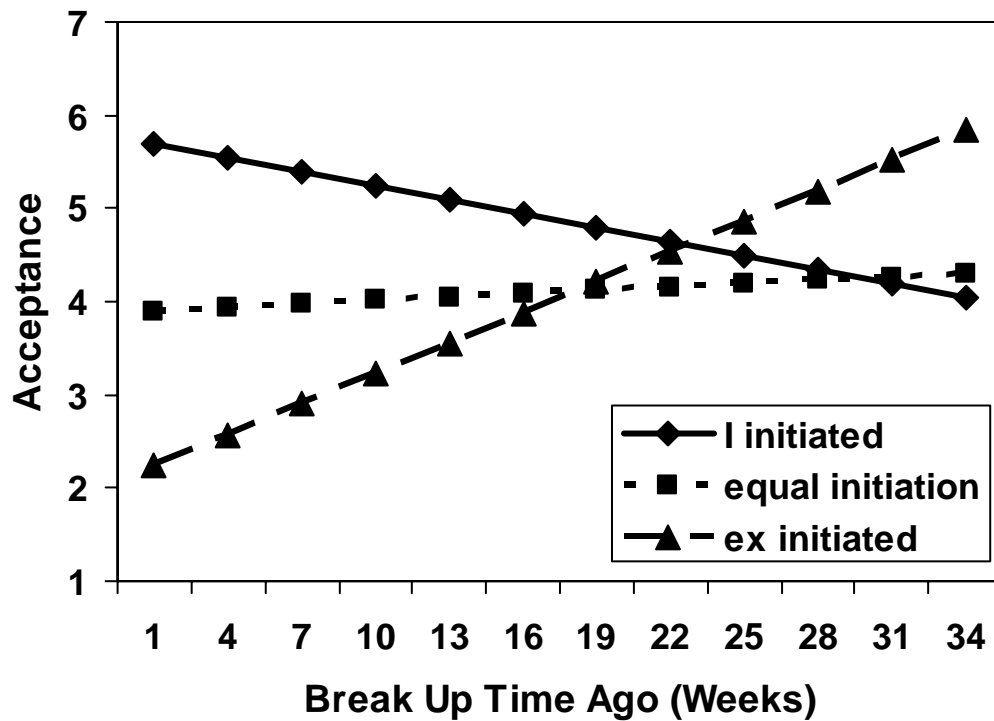
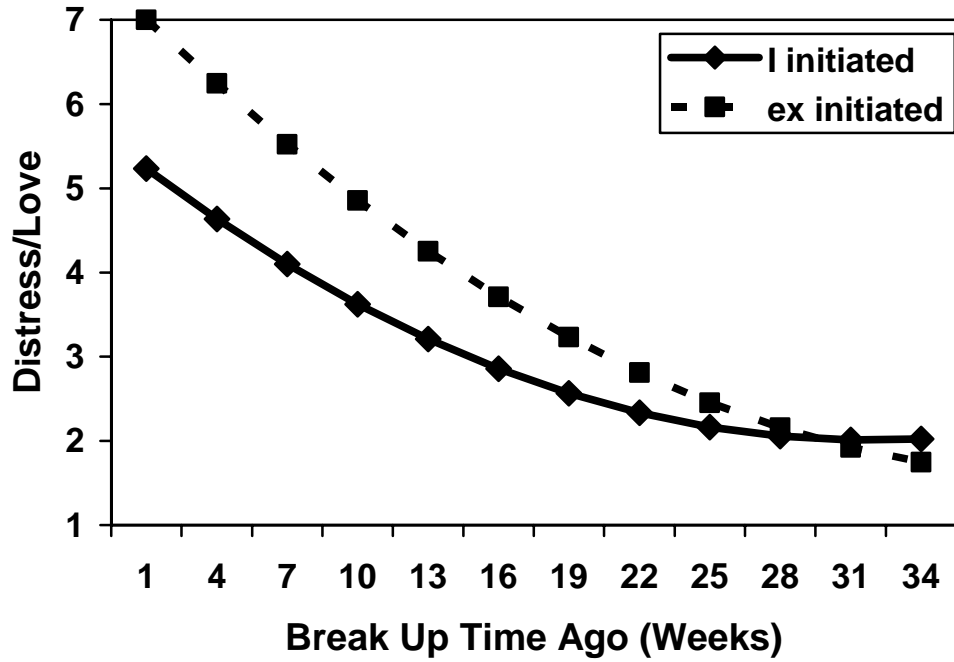


Figure 4

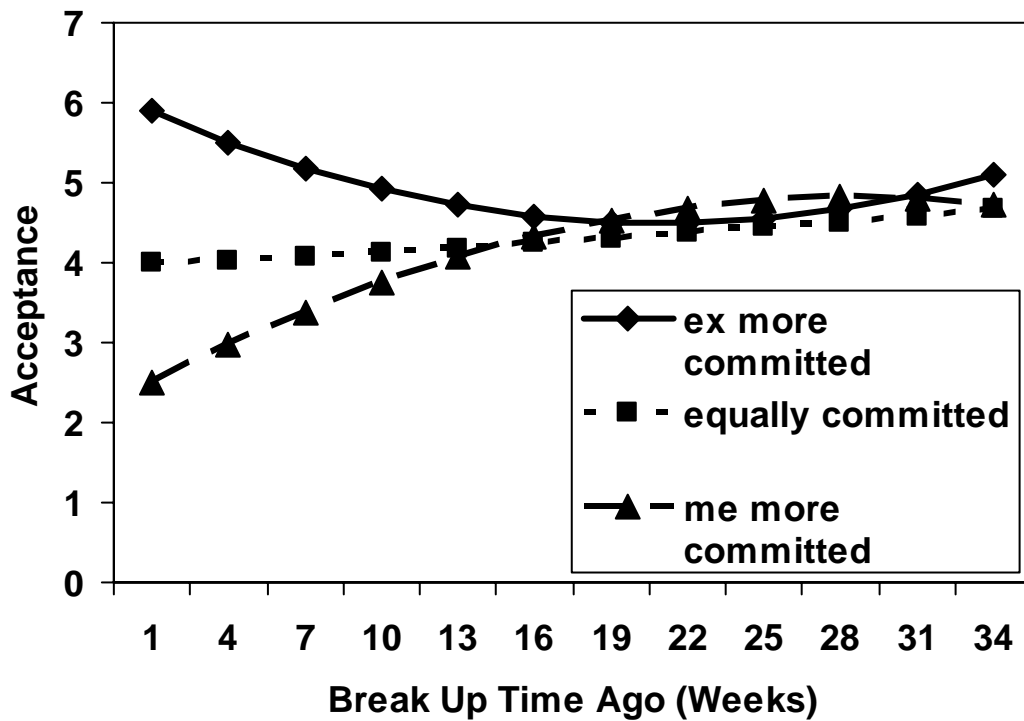
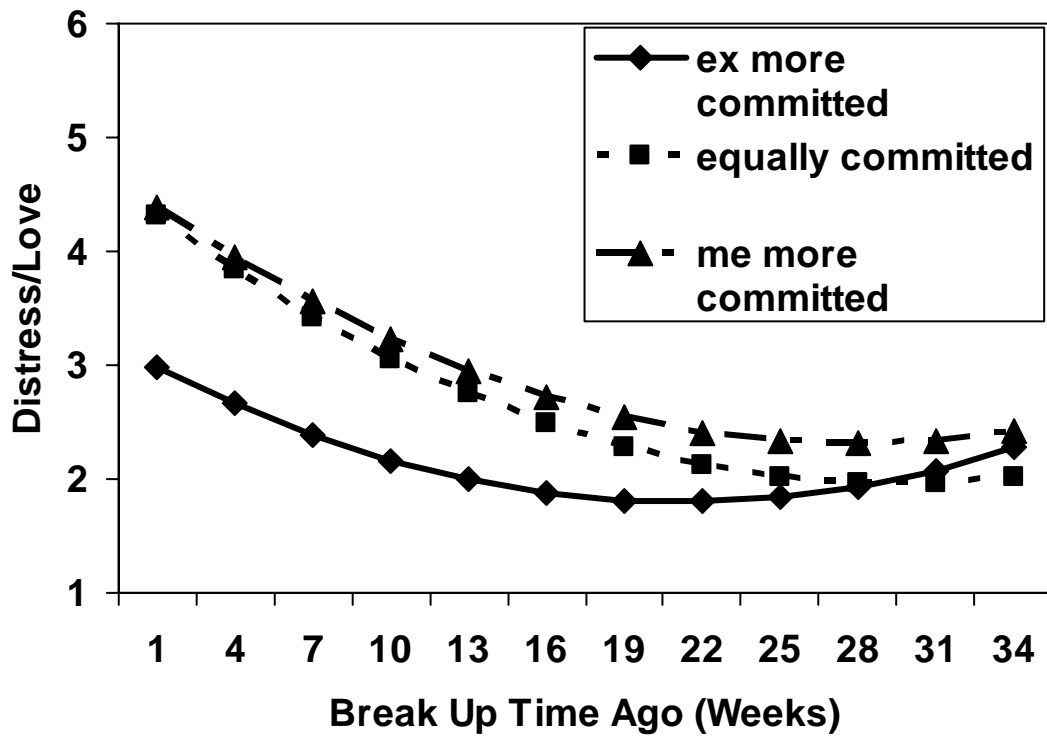


Figure 5

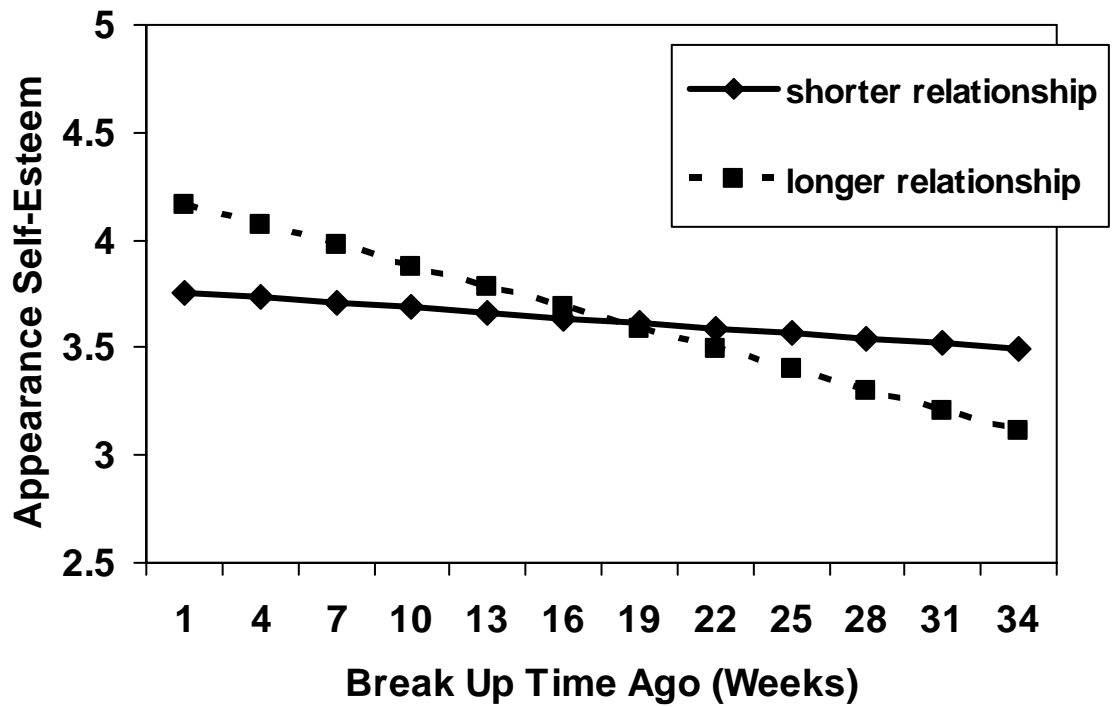
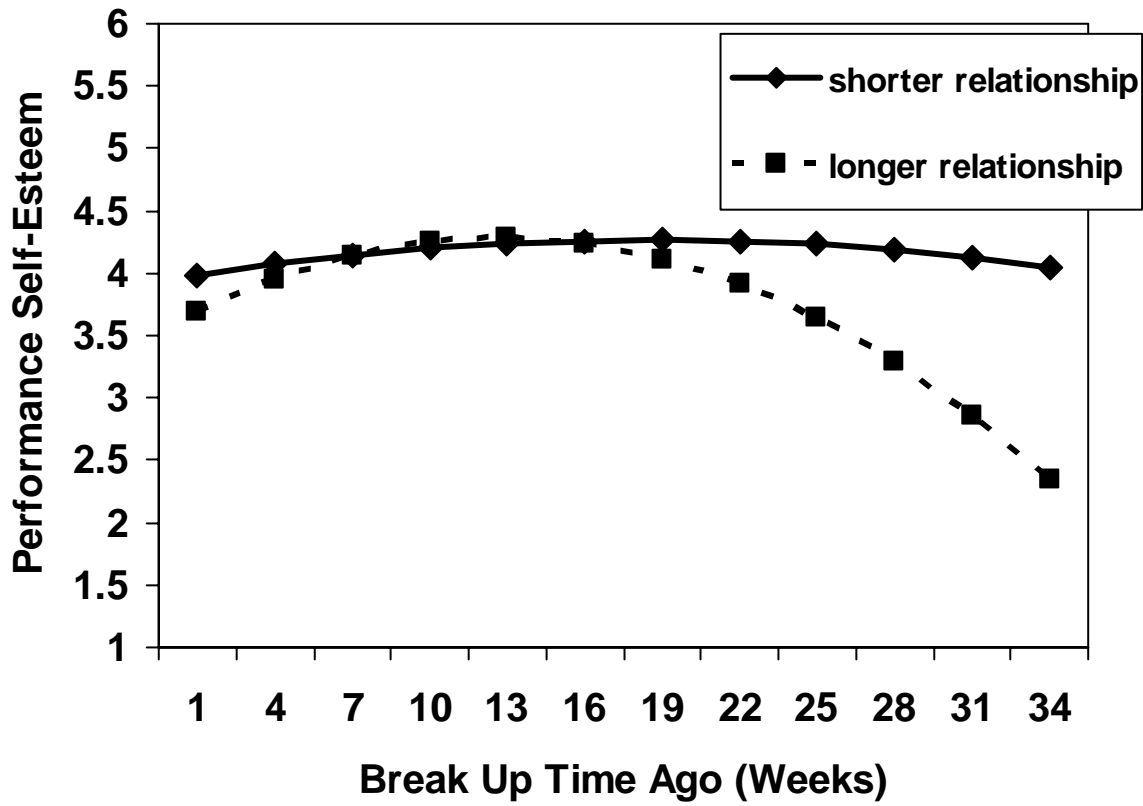


Figure 6

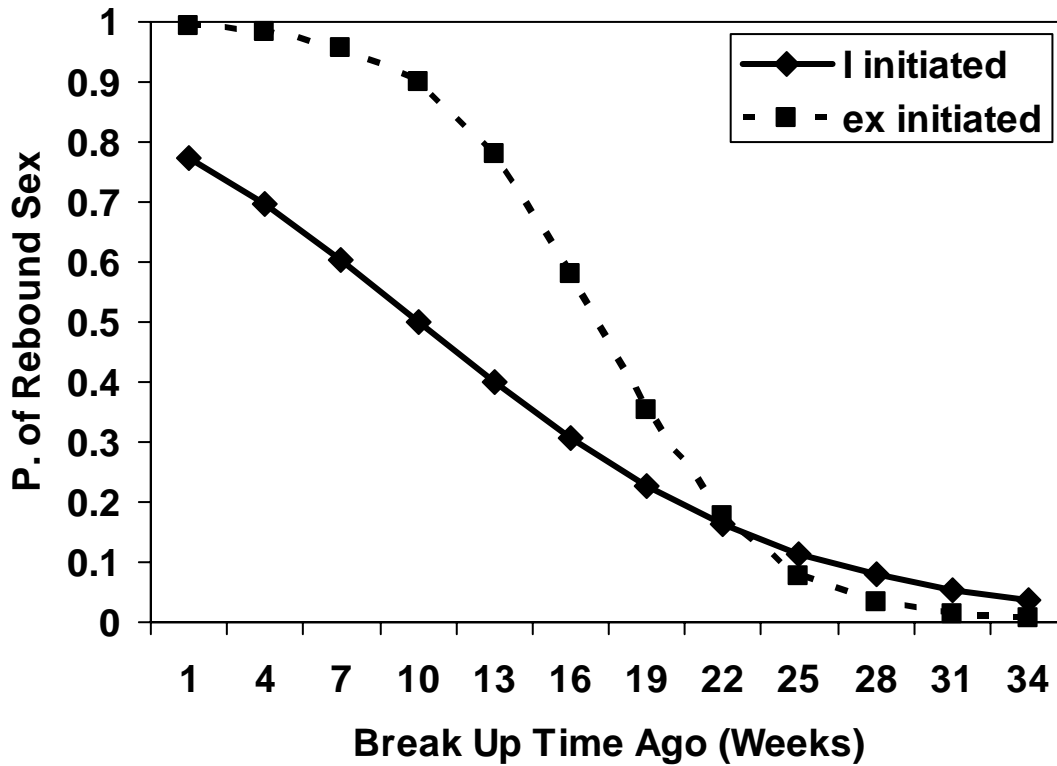
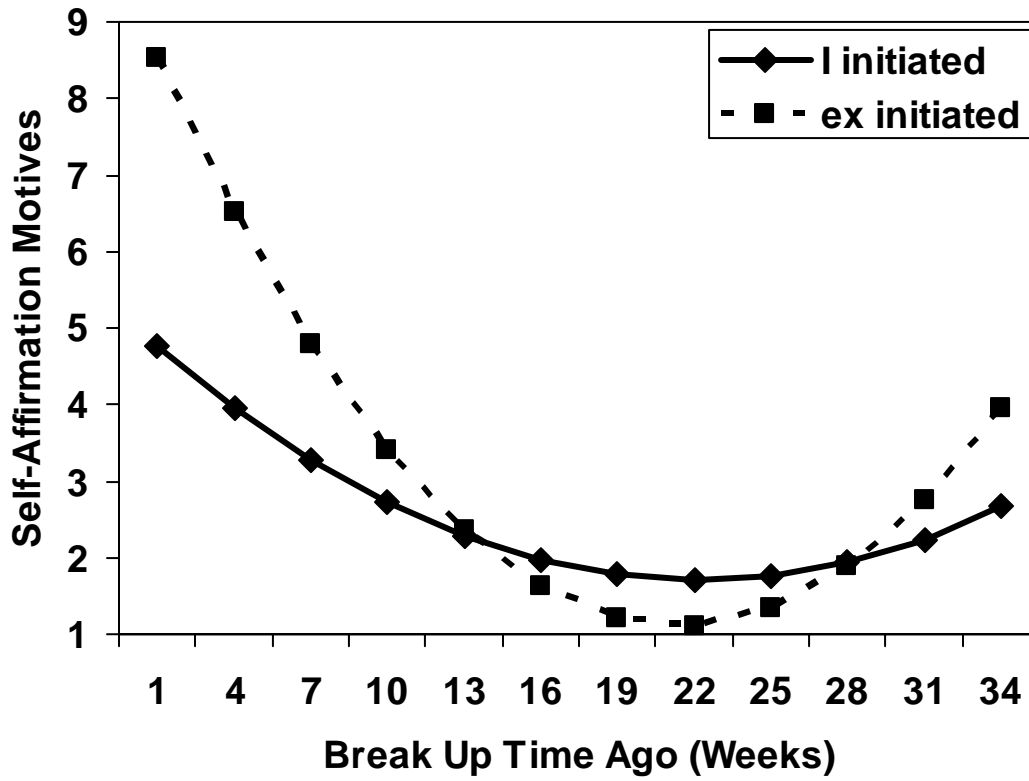


Figure 7

