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# Thinking about commitment: Accessibility of commitment and prediction of relationship persistence, accommodation, and willingness to sacrifice

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## Abstract

Research has demonstrated that more accessible cognitive constructs (e.g., attitudes, stereotypes) are more likely to influence thoughts and behaviors. The current research applies a social cognition framework to the prediction of romantic relationship persistence (i.e., “stay-leave” behavior), accommodation, and willingness to sacrifice. Conceptualizing commitment as a partially cognitive construct and following from social cognition and attitudinal research, we hypothesized that the accessibility of commitment will moderate the association between commitment and relationship persistence, accommodative responses, and willingness to sacrifice. In Study 1, participants in romantic relationships responded to statements derived from the commitment subscale of the Investment Model Scale. Reaction times to these statements were used as a measure of accessibility of commitment. In addition, participants completed measures of their commitment level. Seven months later, participants were contacted and relationship persistence was assessed. Accessibility of commitment significantly moderated the association between commitment and relationship persistence. Study 2 expanded on the results of the first study by demonstrating that accessibility of commitment also significantly moderated the association between commitment and accommodation and willingness to sacrifice. Taken together, these two studies highlight the usefulness of applying social cognitive concepts to understand close relationships.

Individuals often make decisions and engage in behaviors that have consequences for their romantic relationships. Some important outcomes of these behaviors can be the maintenance or termination of the romantic relationship. Research on the topic of romantic relationship maintenance and termination has identified psychological commitment to the relationship as an important predictor of cognitions and behaviors associated with maintenance of a relationship. Some conceptualizations of commitment have argued that commitment includes a cognitive component (Arriaga & Agnew, 2001; Rusbult & Buunk,

1993). The current studies build on the construct of relationship commitment and its association with maintenance behaviors by examining cognitive aspects of commitment.

## *Commitment and its correlates*

Most models of commitment assume that the intent to continue with or dissolve a relationship is a function of those factors drawing one toward the partnership in conjunction with influences moving the individual away from the partnership and that commitment is the degree that the attracting powers overwhelm the repelling forces (Johnson, 1991; Levinger, 1988; Rusbult & Buunk, 1993). Commitment encompasses many diverse themes (Adams & Jones, 1997), including a wide range of individual and relational processes

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such as a long-term orientation toward the relationship, a psychological attachment to the partner, feelings of loyalty and devotion between partners, perceived obligation to the partnership, and at an extreme level, even perceived entrapment in the relationship. Furthermore, a wealth of studies, many of which employ an investment model perspective (Rusbult, 1983), have demonstrated that commitment is associated with a range of relationship variables, including accommodative responses to conflict, willingness to sacrifice, and persistence in the relationship (i.e., “stay-leave behavior”; Le & Agnew, 2003; Rusbult & Buunk; see Rusbult, Drigotas, & Verette, 1994, for a review of these findings).

Accommodation refers to one romantic partner's actions in response to destructive relationship behaviors on the part of the other partner. Specifically, responses can be constructive or destructive and may be active (e.g., leaving the relationship) or passive (e.g., hoping that the relationship will improve). Thus, within these orthogonal dimensions, four distinct categories of responses are distinguished (see Rusbult, Yovetich, & Verette, 1996, for a review): exit (destructive/active), voice (constructive/active), loyalty (constructive/passive), and neglect (destructive/passive). Commitment has been found to be positively associated with voice and loyalty and negatively associated with exit and neglect behaviors. Willingness to sacrifice refers to “foregoing one's own immediate self-interests to promote the well-being of the partner or relationship” (Van Lange, Agnew, Harinck, & Steemers, 1997, p. 1331), and is positively associated with commitment.

In particular, accommodation and willingness to sacrifice are important relational behaviors because of their implications for relationship maintenance. All relationships will eventually encounter obstacles and times when dyadic bonds are strained. Accommodation involves acting in the best interests of the dyad even during times of conflict, helping to maintain the relationship. When partners suppress their destructive impulses (which may be attractive to the individual but detrimental to the relationship) and consider the best interests of their relationship, couple well-

being is promoted (Rusbult, Bissonnette, Arriaga, & Cox, 1998). Similarly, willingness to sacrifice represents a key element of relationship maintenance. In situations when partners' preferences do not correspond, sacrificing one's own preferences for the sake of the partner's preferred outcome (or the best outcome for the relationship) benefits the relationship while at the same time demonstrating to a partner (and perhaps the self) dedication to the relationship (Van Lange, Rusbult, et al., 1997). In a sense, accommodation and willingness to sacrifice are the results of relational interdependence (Thibaut & Kelley, 1959) such that individuals become partner- and dyad-focused rather than solely concerned with their own outcomes.

Furthermore, accommodation and willingness to sacrifice can be considered to act in the service of relationship persistence. Higher levels of commitment should motivate a wish to maintain the relationship leading to both relationship maintenance behaviors and continued persistence in the relationship over time. Research on commitment has found that it is an important predictor of relationship persistence (e.g., Le & Agnew, 2003).

#### *Accessibility and commitment*

Although the associations between commitment and various relationship cognitions and behaviors (such as accommodation, willingness to sacrifice, and relationship persistence) have been demonstrated by a number of studies, less work has examined moderators of these associations. By examining moderators of the association between commitment and relationship variables, researchers' understanding of the conditions that may strengthen this association can be improved. In turn, this understanding allows for the ability to make better predictions concerning when commitment will be influential within relationships.

One possible moderator is *accessibility*, a measure of the likelihood that a cognitive construct will be retrieved quickly or even automatically from memory (Fazio, Sanbonmatsu, Powell, & Kardes, 1986). Research on attitudes and social cognitive processes has demonstrated that accessibility of a cognitive

construct, such as an attitude, moderates the association of that attitude with related cognitions or behaviors (Fazio & Towles-Schwen, 1999; Fazio & Williams, 1986). A cognitive construct that is highly accessible from memory is more likely to become activated automatically when a relevant stimulus is encountered in the environment. Once activated, a construct is more likely to influence relevant cognition and behavior than are cognitive constructs that are not activated. The effect of accessibility on cognition and behavior has been demonstrated both when a construct is made temporarily more accessible (e.g., via priming) and when the construct is chronically accessible for a person (Bargh, Lombardi, & Higgins, 1988; Bargh & Thein, 1985).

The moderating role of accessibility has been demonstrated within a diverse set of topics, such as impression formation, goals, and attitudes (Bargh & Thein, 1985; Chartrand & Bargh, 1996; Higgins, Rholes, & Jones, 1977; Houston & Fazio, 1989), and similar findings have been reported in relationship research, such as the availability and accessibility of attachment working models (e.g., Baldwin, Keelan, Fehr, Enns, & Koh-Rangarajoo, 1996; Whitaker, Beach, Etherton, Wakefield, & Anderson, 1999). Similarly, in a series of studies showing the benefits of applying social cognitive constructs in marriage research, accessibility of evaluations of relationship stimuli moderated the Marital Adjustment Tests' (MAT) ability to predict relationship-relevant cognition and behavior. In addition, over a period of 18 months, MAT scores were more stable for participants who had more accessible relationship evaluations (Fincham & Beach, 1999). These findings highlight the benefits of applying the concept of accessibility in close relationship research. The goal of the present studies is to investigate the *accessibility of commitment*, particularly the role of accessibility of commitment in predicting outcomes in romantic relationships.

Accessibility has previously been described as "the activation potential of available knowledge" (Higgins, 1996, p. 134). This definition indicates that knowledge varies in the extent to which it is likely to *activate*, with activation allowing for the

influence of cognition on behavior. Importantly, many theories of accessibility assume that this activation may occur without the construct ever reaching conscious awareness (e.g., subliminal priming). Although the definition discusses "knowledge," this term is used broadly and research has examined accessibility of attitudes, traits, stereotypes, goals, and other cognitive constructs (Higgins).

In addition, accessibility is viewed as existing on a continuum from high to low, with high levels of accessibility indicating a greater potential or likelihood of activation. Furthermore, accessibility is determined both by chronic levels of accessibility and recent events or primes that momentarily increase accessibility (Bargh, Bond, Lombardi, & Tota, 1986; Higgins, 1996). Applying the ideas of chronic and momentary effects on accessibility to commitment indicates that accessibility of commitment can be considered as a chronic, somewhat stable variable that is susceptible to momentary environmental changes. Chronic accessibility is the result of frequent activation of a construct and resulting slow rates of decay of that activation (Higgins). Therefore, variability among people in chronic accessibility of commitment should result from differences in the frequency to which commitment is activated (either through environmental factors or internal cognition) and differences in the decay rate of that activation.

### *The effects of accessibility*

Although accessibility has been examined in many different areas of research, the theoretical bases of the effects of accessibility have been well described in the Motivation and Opportunity as Determinants (MODE) model (Fazio & Towles-Schwen, 1999). Although originally formulated to describe the influence of accessibility of attitudes, the MODE model can be applied to help understand the impact of accessibility of other cognitive constructs. Specifically, the MODE model postulates that highly accessible attitudes are more likely than less accessible attitudes to become activated upon presentation of the attitude object. Once activated, these attitudes can be influential in several ways, including

biasing the processing and interpretation of the attitude object in a manner consistent with the attitude. Furthermore, the activated attitude can guide behavior toward the object in a direction consistent with that attitude. However, if an attitude is less accessible, and thus not activated upon encountering the attitude object, the MODE model predicts that this attitude will have little or no effect on cognition or behavior toward the object. A great deal of research, much of which measures accessibility of an attitude by assessing the speed of responding to questions about the attitude or the attitude object itself, has supported the MODE model (Fazio & Towles-Schwen).

Although the MODE model was originally posited to address attitude accessibility, similar hypotheses have been proposed for the association between accessibility and other types of cognitive constructs such as goals (Bargh, 1990). Likewise, by applying the general framework described by the MODE model to relationship variables, a picture of how accessibility of commitment should relate to commitment level can be developed. Based on an application of the MODE model, when commitment is highly accessible, it should be more likely to become activated and influence cognition and behavior. This influence can occur through relatively spontaneous and automatic processes, as well as more deliberative processes.

A large body of research has examined how the accessibility of a construct is related to other characteristics of that construct. Despite research showing a positive correlation between attitude accessibility, extremity (i.e., positivity or negativity), and importance (Krosnick, Boninger, Chuang, Berent, & Carnot, 1993), research examining the relationship between these three constructs suggests that, although correlated, these constructs are not interchangeable (Bizer & Krosnick, 2001). Therefore, it is likely that the extremity and accessibility of commitment are correlated. However, drawing on this past research and theory on accessibility, extremity and accessibility of commitment are theorized to be distinct constructs. Therefore, it is possible for participants to be high in com-

mitment level but low in accessibility (or vice versa). For example, an extreme attitude may be relatively inaccessible, especially if a long time has lapsed since the last activation of the construct. Following from this argument, commitment may be high but relatively inaccessible. This might occur if commitment was initially formed at a high level, but then over time no event occurs (e.g., threats to the relationship such as encountering attractive alternatives) that activates commitment, leading to decay in accessibility over time.

#### *Exploring accessibility of commitment*

If, as some theory and research have suggested, commitment can be characterized as a partially cognitive construct (e.g., Arriaga & Agnew, 2001), the concept of chronic cognitive accessibility can be used to improve researchers' understanding of how commitment is associated with relationship outcomes. The present research investigated the ability of accessibility of commitment to moderate the associations between commitment and relationship persistence, accommodation, and willingness to sacrifice. By considering commitment a cognitive construct, researchers have additional theoretical and methodological tools available in their investigations of relationship processes. For example, investigating social cognitive constructs (e.g., accessibility) and employing associated methodologies (e.g., response latencies) may help to provide a deeper understanding of the processes involved in commitment and its associated behaviors.

Based on the predictions of the MODE model, it is theorized that accessibility of commitment will moderate commitment's ability to predict subsequent relationship-relevant behavior (i.e., relationship persistence, willingness to sacrifice, and accommodation). If commitment is highly accessible, it will be more likely to become activated and be able to guide cognition and behavior. However, if commitment is less accessible, it will be less likely to become activated and therefore be less successful at guiding cognition and behavior.

### Goals of studies 1 and 2

*Study 1.* The first study tests the effects of commitment and commitment accessibility on relationship persistence over a 7-month time span. Commitment and accessibility of commitment were measured at Phase 1, and at Phase 2, participants were contacted and relationship persistence was assessed. Several hypotheses were tested in Study 1.

- H1: *Commitment will predict subsequent relationship persistence.*
- H2: *Accessibility of commitment will moderate the association between commitment and relationship persistence. In particular, we predict that the association between commitment and relationship persistence will be stronger for those participants for whom commitment is more accessible than those participants for whom commitment is less accessible.*

*Additional analyses: Initiating relationship dissolution.* Study 1 will also explore how responsibility for initiating the breakup is related to the moderating role of accessibility in determining commitment's ability to predict breakup. A person's own commitment and accessibility should predict that person's future behavior. Therefore, commitment should predict relationship persistence for participants initiating breakup with their partner, and accessibility should moderate this association. However, individuals' commitment cannot be expected to completely control the behavior of their partner (although it may be related to partners' behaviors), and therefore, in relationships when romantic partners initiate breakups, their own commitment should be a less effective predictor of relationship dissolution and accessibility should be less likely to moderate the association between commitment and relationship dissolution.

*Study 2.* The second study expands on the first by using a cross-sectional design to test several hypotheses regarding commitment,

accessibility of commitment, accommodation, and willingness to sacrifice.

- H3: *Commitment will be positively associated with increased accommodative behavior.*
- H4: *Commitment will be positively associated with willingness to sacrifice in the relationship.*
- H5: *Accessibility of commitment will moderate the association between commitment and accommodation, such that participants whose commitment is more accessible will show stronger associations between commitment and accommodative behavior.*
- H6: *Accessibility of commitment will moderate the association between commitment and willingness to sacrifice, such that participants whose commitment is more accessible will show stronger associations between commitment and willingness to sacrifice.*

## Study 1

### Method

*Participants.* Two hundred and twelve undergraduate students (124 females, 88 males) enrolled in introductory psychology courses at a large Midwestern university participated (mean age = 19,  $SD = 1.3$ ). The majority of participants were first-year students (61%; 27% sophomores, 8% juniors, and 5% seniors), and 85% of the sample was White/Caucasian (6% Asian-American, 4% African-American, 4% Hispanic/Latino, and 2% other). Participation partially fulfilled a course requirement, and all participants were involved in dating relationships. Participants were involved with their current romantic partner for an average of 16.5 months ( $SD = 14.6$ ) with 86% of participants indicating that the relationship was exclusive and 87% indicating they were "dating seriously" (vs. "casually"). In addition, 50% reported that their relationships were long distance.

*Phase 1 procedure and measures.* Upon arriving in the lab, individual participants were each seated in one of several private rooms containing a computer. Participants read a description of the research and were asked to provide contact information (e.g., e-mail address and telephone number) so that the researchers could contact them within the following year and ask follow-up questions about their relationships. After providing contact information (if they chose to do so), participants completed demographic questions about their relationship before beginning the computer-based portion of the study. They were informed that they would be asked to answer questions about different aspects of their lives and that this research was interested in people's ability to make quick judgments about life events.

Participants were instructed to place their fingers on the "A" and "L" keys on a keyboard and press the space bar when they were ready to begin. Following initiation of the computer program, sentence stems consisting of statements about some aspect of the participants' life and relationship appeared on the screen. These sentence stems were missing the last word of the sentence and appeared on the screen for 3.5 s before a single word completing the sentence appeared (e.g., "Imagining myself with my partner in the distant future is ... <pause> ... hard"). After reading the sentence completing word, participants indicated if the statement was true or false by pressing the "A" key on the keyboard for "true" or the "L" key for false. Paralleling instructions from past research (Fazio, 1990), participants were instructed to answer all questions as accurately and quickly as possible (i.e., not sacrifice accuracy for speed but also not sacrifice speed for accuracy). Response times were measured from the onset of the completion word until the participants pressed the "A" (true) or "L" key (false). Once the participant responded, the next sentence stem was presented. Presentation order of all sentences was randomized.

The sentence stems and completion words were developed based on the commitment subscale of the Investment Model Scale (Rusbult, Martz, & Agnew, 1998) to measure the speed of response or response latencies

for commitment-related items. Although the Investment Model Scale consists of seven items, seven additional sentence stems were developed in order to increase the number of items measuring commitment accessibility (e.g., "I consider maintaining our romantic relationship to be ... important/unimportant"). In addition, filler sentence stems were developed to obscure the purpose of the response latency task as well as provide measures of baseline levels of response speed for participants (Fazio, 1990). Each sentence stem was presented to the participants twice, with the sentence completion word differing, as antonyms, with the two presentations. For example, the sentence stem "I want our romantic relationship to ..." was completed either by the word "last" or "end." Participants responded to sentence stems to measure speed of response to commitment (a total of 28 items from 14 unique stems with two antonym completion words each) along with filler items (a total of 58 items from 29 unique stems). Filler sentence stems were specifically chosen to be statements about a wide variety of topics (e.g., academics, food preferences, career, etc.) while still being able to be completed by one of two antonym stem completion words. To avoid confounds in the measures, the filler items contained no references to the participants' romantic relationships or their romantic partners.

Upon completion of the response latency portion of the experiment, participants completed two measures of commitment, including the seven-item commitment subscale of the Investment Model Scale (Rusbult, et al. 1998), also presented via computer, which includes a measure of commitment to a romantic relationship (e.g., "I am committed to maintaining my relationship with my partner"; 1 = *do not agree at all*, 9 = *agree completely*). Furthermore, participants completed 10 additional items assessing commitment (e.g., "I want to maintain our relationship"; 1 = *do not agree at all*, 9 = *agree completely*; Arriaga & Agnew, 2001). These additional items have been validated and were originally designed to expand upon and be conceptually similar to the original Investment Model Scale commitment items.

As commitment was a primary focus of the current research, the two scales were combined to create a larger measure of participant's commitment. This combined measure, consisting of a total of 17 items, showed good reliability ( $\alpha = .94$ ). In addition, the measure assessed the bases of commitment: satisfaction with (five items,  $\alpha = .94$ ), alternatives to (five items,  $\alpha = .86$ ), and investments (five items,  $\alpha = .76$ ) in the relationship.

*Phase 2 procedure and measures.* Participants who previously gave consent were contacted approximately 7 months after their initial experimental session. Participants were sent an e-mail reminding them of their participation in Phase 1 of the study, including the URL for an online questionnaire they were asked to complete. Participants not responding to the first e-mail (i.e., did not complete the questionnaire) were reminded after approximately 2 weeks by a second e-mail again asking them to complete the questionnaire. If no response was made to the second e-mail, an attempt was made to reach them by telephone and administer the questionnaire orally. The mean time between the initial experimental session and when the participants provided the Phase 2 data was 30.8 weeks ( $SD = 3.5$ ).

Participants were asked to indicate whether or not they were still dating the same person about whom they had answered questions during Phase 1. In addition, participants were asked to indicate who was responsible for the breakup using the following scale: "I was responsible for the breakup," "Both my partner and I were responsible for the breakup but mostly me," "Both my partner and I were responsible for the breakup but mostly my partner," or "My partner was responsible for the breakup." Of the 212 Phase 1 participants, 137 completed Phase 2 measures (67%). At Phase 2, 90 participants were still involved with the partners they had listed during Phase 1 and 47 were no longer with their partners. In order to test whether those participants who responded at Phase 2 had significantly different commitment levels from Phase 1, a  $t$  test was performed comparing commitment levels at Phase 1 for those participants who did versus those who did

not respond at Phase 2. The  $t$  test was nonsignificant,  $t(137) = -1.04$ ,  $ns$ .

*Working with reaction time data.* The response latencies for both the commitment accessibility items as well as the filler items were trimmed to eliminate those participants who responded extremely quickly and those responding after a long delay (indicating they were not engaged in the task). Each participant's reaction time on a response item was compared to the overall mean latency in milliseconds for that item. If a participant's latency was faster than three standard deviations below the mean or slower than three standard deviations above the mean, the latency for that item was recoded as missing data. This procedure was repeated for each response item and resulted in the elimination of less than 2% of the total number of response latencies provided by the entire sample.

Following data trimming, mean latencies for commitment were created by averaging the response latencies of the completion words for the 28 items measuring commitment ( $\alpha = .89$ ). Similarly, average latencies for the 58 filler items were created. The latencies for the commitment accessibility items and the filler items were found to be significantly correlated ( $r = .81$ ); therefore, the filler items were used to create a baseline measure for speed of responding for each subject. Mean latencies for commitment were divided by mean latency for commitment plus mean latency for filler, thus creating a ratio that measured the overall speed of responding to commitment items, controlling for baseline speed of responding for each participant. All subsequent analyses examining speed of response to commitment items employ these adjusted ratio scores. Examinations of the distribution of the ratio measure indicated that it was normally distributed and therefore no further adjustments were made to the accessibility of commitment measure.

## Results

*Commitment and relationship persistence.* To test Hypothesis 1, that commitment would be significantly associated with relationship

**Table 1.** Correlations between all variables: Study 1 and Study 2

	COM							
	COM	ACC	SAT	ALT	INV	RD	S-L	ACC
Commitment (COM)		-.55*	.69*	-.50*	.64*	.02	.40*	—
Commitment accessibility (COM ACC)	-.57*		-.45*	.36*	-.37*	.00	-.38*	—
Satisfaction (SAT)	.68*	-.46*		-.37*	.46*	-.15	.35*	—
Alternatives (ALT)	-.52*	.40*	-.31*		-.33*	.08	-.28*	—
Investments (INV)	.60*	-.32*	.47*	-.29*		.22*	.31*	—
Relationship duration (RD)	.23*	-.15*	.14*	-.02	.30*		.01	—
Stay-leave (S-L)	—	—	—	—	—	—	—	—
Accommodation (ACC)	.41*	-.29*	.38*	-.30*	.24*	.02	—	—
Willingness to sacrifice	.38*	-.24*	.25*	-.18*	.26*	.06	—	.38*

Notes. Study 1,  $n = 212$ , except those pairings including stay-leave ( $n = 137$ ); Study 2,  $n = 321$ . Study 1 is above the diagonal; Study 2 is below the diagonal.

\* $p < .01$ .

persistence, a point-biserial correlation between commitment collected at Phase 1 ( $M = 7.12$ ,  $SD = 1.48$ , for those who provided Phase 2 data) and relationship persistence at Phase 2 (coded as 0 = *broken up* and 1 = *still together*) was computed. The results supported the hypothesis showing that commitment was significantly positively associated with remaining in the relationship at Phase 2 ( $r_{pb} = .41$ ,  $n = 137$ ,  $p < .001$ ; see Tables 1 and 2 for correlations between all Study 1 variables and persistence in the relationship).

*Commitment, accessibility of commitment, and relationship persistence.* Hypothesis

2, which predicted that accessibility of commitment would moderate the relationship between commitment and relationship persistence, was tested using a multiple logistic regression analysis. Consistent with previous work on accessibility of attitudes indicating that more extreme attitudes tend to be more accessible (Fazio, 1990), commitment and accessibility of commitment were found to be correlated ( $r = -.55$ ,  $p < .001$ ). Due to this significant correlation between commitment and accessibility of commitment, multicollinearity is of concern. The variance inflation factor (VIF) was calculated for a multiple regression using commitment and accessibility

**Table 2.** Percentage of participants still dating at Time 2, split by categorical control variables: Study 1

	Still dating (%)	$\chi^2$	$df$
Long-distance relationships	54	8.46*	1, 136
Proximal relationships	77		
Males	62	0.81	1, 136
Females	69		
Status: dating steadily	70	9.88*	1, 136
Status: dating casually	31		
Dating exclusively	72	13.71*	1, 136
Nonexclusive dating	30		

\* $p < .05$ .

**Table 3.** Multiple logistic regression analyses: Commitment level, accessibility of commitment, and the interaction predicting relationship continuance

Model	Estimate	SE	$\chi^2$	$p <$	$\chi^2$	df	$p <$
Step 1					24.87	2, 137	.001
Intercept	0.733	0.203	13.10	.01			
Commitment (C)	0.376	0.180	4.38	.05			
Accessibility (A)	-11.855	7.103	3.45	.08			
Step 2					31.56	3, 137	.001
Intercept	0.396	0.249	2.53	.12			
Commitment (C)	0.741	0.244	9.24	.01			
Accessibility (A)	-13.194	7.103	3.45	.07			
C × A	-10.115	3.984	6.45	.05			

Note. Test of  $\chi^2$  change from Step 1 to Step 2:  $\Delta\chi^2(1, 137) = 6.69; p < .01$ . Test of  $R^2$  change from Step 1 to Step 2:  $\Delta R^2 = .022; F(1, 137) = 3.65, p = .05$ .

of commitment to predict relationship continuance, VIF = 1.87. The VIF was lower than commonly employed criterion for indicating the presence of multicollinearity (VIF > 10).

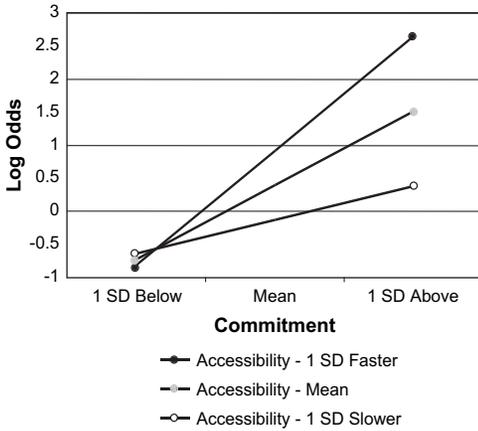
Before conducting the multiple regression, both commitment and accessibility of commitment scores were centered (Aiken & West, 1991; Jaccard, 2001). A two-step approach was taken to examine Hypothesis 2. First, commitment and accessibility of commitment (as measured by response latencies) were entered into a logistic regression model predicting relationship persistence (see Table 3).<sup>1</sup> Commitment, but not accessibility of commitment, was found to significantly predict persistence ( $\chi^2$  for the model = 24.87). Next, the interaction term between commitment and accessibility was added to the model, and this interaction term significantly predicted rela-

tionship persistence ( $\chi^2$  for the model = 31.56). Furthermore, the change in the variance in relationship persistence accounted for by the first and second models was significant,  $\Delta\chi^2(1, 137) = 6.69, p < .01$ , indicating that the model including the interaction between commitment and accessibility of commitment accounted for significantly more variance than did the model not including this term.

In short, commitment was found to be positively (and significantly) associated with relationship persistence (consistent with Hypothesis 1). In addition, this main effect was qualified by an interaction such that the association between commitment and persistence was moderated by accessibility of commitment (see Table 3). Specifically, as accessibility of commitment increases, commitment level shows a stronger association with the log odds of remaining in the relationship at Phase 2 (see Figure 1). This finding demonstrates that speed of response to commitment items moderates the relationship between commitment and relationship persistence assessed 7 months later.<sup>2</sup>

1. In addition, we completed analyses examining accessibility as measured by just the positive antonym reaction times and the negative antonym reaction times. For these analyses, accessibility based on negative antonym reaction times was always a significant moderator of commitment’s association with relationship persistence, accommodation, and willingness to sacrifice (i.e., interaction between commitment and accessibility was significant). When the dependent variable was Phase 2 relationships persistence, accessibility measures using positive antonym reaction times were a marginally significant moderator (i.e., the interaction term between commitment and accessibility of commitment was marginally significant in Study 1). For those analyses using the positive antonym reaction times, accessibility was not a significant moderator of commitment’s prediction of accommodation and willingness to sacrifice (Study 2).

2. For some sentence stem trials, participants responded identically to both a sentence stem completion word and its antonym (e.g. responding “yes” to both “I want our romantic relationship to ... [last/end]”). Therefore, analyses were run after setting to missing data all trials in which participants responded the same way to a completion word and its antonym. The results of these analyses paralleled the results reported, which included these trials, showing the same pattern of significant findings.



**Figure 1.** Log Odds of Remaining in the Relationship.

*Examining potential confounding variables.* To rule out a diverse set of potential alternative explanations for these results, a range of potential confounding variables (e.g., sex of participant, status of relationship, satisfaction level, etc.) were correlated with commitment and accessibility of commitment. Any variable that correlated significantly with commitment or accessibility of commitment was included in a logistic regression, along

with commitment, accessibility of commitment, and the interaction term of these two variables, in predicting relationship persistence. Based on this criterion, satisfaction level with the relationship, alternatives to the relationship, investments in the relationship, status of the relationship (i.e., casual or serious dating), geographic status of the relationship (i.e., long distance or proximal), and relationship exclusivity (i.e., dating or not dating others) were all included in the logistic regression (for simple point-biserial correlations with stay-leave, see Table 1; for categorical variables association with stay-leave, see Table 2). In addition, the variables of participant gender and relationship duration were also controlled for in the analyses. With the inclusion of these variables, commitment remained positively associated with relationship persistence, but more importantly, accessibility of commitment continued to moderate this association (see Table 4). Specifically, the association between commitment and relationship persistence became stronger as accessibility of commitment increased. The inclusion of this range of variables in the analysis helps support the hypothesis that accessibility of commitment is a key moderating variable for commitment predicting relationship persistence.

**Table 4.** Multiple logistic regression analyses: Commitment level, accessibility of commitment, the interaction, and control variables predicting relationship continuance

Model	Estimate	SE	$\chi^2$	$p <$	$\chi^2$	df	$p <$
					44.98	2, 118	.001
Intercept	13.758	6.31	4.75	.05			
Long distance	-0.938	0.57	2.67	.11			
Gender	-0.005	0.57	0.01	.99			
Status	-0.456	1.02	0.20	.66			
Exclusive	-0.558	1.00	0.31	.58			
Duration	0.016	0.02	0.69	.41			
Satisfaction	0.046	0.22	0.05	.83			
Alternatives	-0.081	0.18	0.21	.66			
Investments	-0.196	0.22	0.76	.39			
Commitment (C)	11.366	3.20	12.61	.01			
Accessibility (A)	-21.683	9.46	5.25	.05			
C × A	-19.980	5.64	12.55	.01			

*Note.* Due to missing values on some of the additional measures used in these analyses, the  $n$  is lower than the previous regressions.

In addition to the potential confounding variables described above, we examined the possibility that the bases of commitment (i.e., satisfaction, alternatives, and investments) each interacted with the accessibility of commitment in predicting relationship persistence. Separate logistic regression analyses were conducted, adding (a) satisfaction and the interaction between satisfaction and accessibility of commitment, (b) alternatives and the interaction between alternatives and accessibility of commitment, and (c) investments and the interaction between investments and accessibility of commitment to the model including the control variables. In the second step of each regression, the interaction between commitment and accessibility of commitment was added to each of the three regressions. Results of these three analyses demonstrated that even when controlling for each of the bases of commitment and their respective interactions with accessibility of commitment, the interaction between commitment and accessibility of commitment remained a significant predictor of relationship persistence. Furthermore, in all three analyses, the interaction term for each of the bases of commitment and accessibility of commitment did not reach significance (all  $p$ s > .05).

*Additional analyses: Initiating relationship dissolution.* In order to explore the effect of responsibility for the breakup on commitment's prediction of breakup, participants who indicated that their relationship ended were divided based on whether they indicated their partner was totally or mostly responsible for the breakup ( $n = 20$ ) or the participant was completely or mostly responsible for the breakup ( $n = 26$ ). A point-biserial correlation between commitment and relationship dissolution was computed for those participants who were still in the relationship or who indicated that they were responsible for the breakup (coded as 0 = *broken up* and 1 = *still together*;  $r_{pb} = .48$ ,  $p < .05$ ). Next, a point-biserial correlation between commitment and relationship dissolution was computed for those participants who were still in the relationship or indicated that their partners were responsible for the breakup (coded as 0 = *broken up* and 1 = *still together*;

$r_{pb} = .20$ ,  $p < .05$ ). These correlations were both converted to  $z$  scores and then tested to determine if the difference between these correlations was significant. The test of the  $z$ -score differences was found to be significant ( $z = 2.46$ ,  $p < .01$ ), indicating that commitment is a better predictor of breakup when the breakup is initiated by participants (from whom commitment was measured) than when breakup is initiated by participants' partners.

In addition, a second set of analyses examined whether accessibility moderated the associations found between commitment and breakup differently for those participants who initiated breakup themselves versus those participants whose partners initiated the breakup. To examine this, two logistic regressions were run. The first regression used commitment, accessibility of commitment, and the interaction term to predict relationship persistence, with only participants who had not broken up or were responsible for the breakup included in the analyses (i.e., participants whose partners initiated the breakup were excluded). The results of the logistic regression were significant overall ( $\chi^2 = 37.43$ ,  $p < .001$ ), with commitment ( $\chi^2 = 10.38$ ,  $p < .01$ , estimate = 7.91) and accessibility ( $\chi^2 = 4.18$ ,  $p < .05$ , estimate =  $-.435$ ) each significantly predicting relationship dissolution. Most importantly, the interaction term was also significant ( $\chi^2 = 9.47$ ,  $p < .01$ ), and the pattern of the moderation was similar to that found for the entire sample. The second logistic regression used commitment, accessibility of commitment, and the interaction term to predict relationship persistence, with only participants who had not broken up or who indicated their partners were responsible for the breakup included in the analyses (i.e., participants who initiated the breakup were excluded). The overall logistic regression was not significant ( $\chi^2 = 6.53$ ,  $ns$ ), and none of the individual predictors of the regression term reached significance. These results indicate that accessibility moderates commitment's ability to predict relationship persistence versus dissolution when individuals take responsibility for initiating a breakup (i.e., when they "leave") but does not moder-

ate when their partners initiate the breakup (i.e., when they are “left”).

### Discussion

Study 1 replicated the finding that commitment predicts relationship persistence (Hypothesis 1). Additionally, it demonstrated that accessibility of commitment significantly moderated the association between commitment and relationship persistence such that commitment predicted persistence better for those participants for whom commitment was particularly accessible (Hypothesis 2). This result held even after controlling for many different relational and demographic variables in the regression. This finding is consistent with current theoretical and empirical work in the social cognition and attitudes literature (e.g., the MODE model; Fazio & Towles-Schwen, 1999) that predicts that highly accessible cognitive constructs are more likely to influence subsequent behavior. In addition, the findings from Study 1 suggest that considering responsibility for relationship dissolution can have an important effect on the predictive ability of commitment and moderation by accessibility. Study 1 examined relationship persistence as the behavior of interest, and Study 2 was designed to extend these findings to accommodation and willingness to sacrifice.

### Study 2

Study 1 supported Hypotheses 1 and 2 in that commitment predicted relationship persistence and that the accessibility of commitment moderated this association. While this finding suggests the utility of considering accessibility when examining relationship commitment, it does not test the association between the accessibility of commitment and other behaviors within relationships such as accommodative responses to a romantic partner and willingness to sacrifice for the relationship. Additional support for the importance of accessibility of commitment would be provided if accessibility was also found to moderate the association between commitment and these variables, and Study 2 was designed to test this possibility.

### Method

*Participants.* Three hundred and twenty-one undergraduate students (183 females, 132 males, and 6 who did not indicate gender) enrolled in introductory psychology courses at a large Midwestern university participated (mean age = 19,  $SD = 1.2$ ). The majority of participants were first- or second-year students (48% freshman, 32% sophomores, 13% juniors, and 5% seniors), and 87% of the sample was White/Caucasian (4% Asian-American, 3% African-American, 3% Hispanic/Latino, and 1% other). Participation partially fulfilled a course requirement, and all participants were involved in dating relationships, self-described as either casual or serious (92% serious). Participants were involved with their current romantic partner for an average of 17.5 months ( $SD = 14.1$ ) with 93% of participants indicating that their relationships were exclusive and 92% indicating that they were “dating seriously” (vs. “casually”). In addition, 52% reported that their relationships were long distance.

*Procedure and measures.* The Study 2 procedure was similar to Study 1, except for two small changes. Modifications were made to the accessibility task in Study 2. First, participants were given 10 practice trials before beginning the accessibility task. These trials were similar to the regular trials (although none of the questions involved relationships) and were designed to introduce the participants to the procedure (and are not included in the analyses). These practice trials were designed to allow participants to become familiar with the procedure during noncritical trials and therefore decrease errors on later trials due to the “learning curve” associated with the task. Furthermore, to prevent fatigue, participants were allowed to pace themselves through the accessibility task. At the end of each trial, participants were required to hit the space key before the next trial would begin. This gave the participants a chance to take a short break following each item before continuing. This break was designed to allow participants to take short rests, for whatever reason, without having these brief rests appear

as long pauses in reaction time. Other than these two changes, the accessibility task was identical to Study 1 ( $\alpha$  for the 28-item measure of accessibility of commitment = .78).

In addition, a 12-item measure of accommodation was completed by participants (modified from Rusbult, Verette, Whitney, Slovik, & Lipkus, 1991). The four subscales, each consisting of three items, were included: exit (e.g., "When my partner is angry with me and ignores me for awhile, I consider breaking up." 1 = *I never do this*, 9 = *I constantly do this*), voice (e.g., "When my partner is rude and inconsiderate with me, I talk to him/her about what's going on..."), loyalty (e.g., "When my partner is angry with me and ignores me for awhile, I give my partner the benefit of the doubt and forget about it."), and neglect (e.g., "When my partner is rude and inconsiderate with me, I ignore the whole thing and try to spend less time with my partner."). An overall accommodation score was computed by averaging across these 12 items after exit and neglect were reverse scored.

Furthermore, willingness to sacrifice for the romantic partner was measured with a three-item scale (e.g., "I am willing to take on more responsibilities than my partner if it is important for our relationship." 1 = *do not agree at all*, 9 = *agree completely*). These items were adapted by Arriaga and Jones (2004) from items used by Randall and colleagues (Randall, Fedor, & Longenecker, 1990) to measure willingness to sacrifice in an organizational context.

As in Study 1, the commitment measure had adequate reliability ( $\alpha = .94$ ), as did the satisfaction ( $\alpha = .92$ ), alternatives ( $\alpha = .85$ ), and investment measures ( $\alpha = .81$ ). Furthermore, accommodation ( $\alpha = .77$ ) and the willingness to sacrifice ( $\alpha = .81$ ) measures also demonstrated good reliability.

Finally, it should be noted that the order of questionnaires was counterbalanced so that half of the participants completed the accommodation and willingness to sacrifice measures prior to the commitment and accessibility measures. For the remaining participants, the accommodation and willingness to sacrifice measures were completed after the accessibil-

ity of commitment task and the commitment scale.

## Results

*Descriptive statistics.* The mean relationship commitment was 7.19 ( $SD = 1.49$ , 1–9 scale, 9 = *high commitment*). In addition, the means for accommodation and willingness to sacrifice were 6.31 ( $SD = 1.11$ , 1–9 scale, 9 = *high accommodation*) and 6.68 ( $SD = 1.70$ , 1–9 scale, 9 = *high willingness to sacrifice*), respectively.

*Working with reaction time data.* Similar to Study 1, data were trimmed at three standard deviations above and below the mean for each item. This procedure was repeated for each response item and resulted in the elimination as missing data of a little less than 2% of the total number of response latencies provided by the entire sample. As in Study 1, a ratio score of accessibility of commitment was created by dividing mean latencies for commitment by the mean latency for commitment plus mean latency for filler items. This ratio score was found to be normally distributed; therefore, no further adjustments were made to the data.

*Testing order effects.* Order of completion of the accommodation items was counterbalanced such that it was presented either before or after the reaction time task and commitment questionnaire. The results of a series of ANOVAs showed no significant effects of order on participants' responses to the commitment items, accessibility of commitment, accommodation, or the willingness to sacrifice items,  $F_s(1, 319)$ , all  $p_s > .05$ . In addition, the three-way interaction between order, commitment, and accessibility was included in regression models predicting accommodation and willingness to sacrifice, and the three-way interaction was not significant in each case ( $F_s = .06$  and  $-.29$ , both  $ns$ , respectively). Furthermore, order in this analysis did not interact significantly with either of the other two variables and did not have a significant main effect for accommodation (all  $t_s < 1.73$ ,  $ns$ ) or willingness to sacrifice

(all  $t_s < 1.60$ ,  $ns$ ). In addition, the correlation between commitment and accessibility of commitment was computed separately for those participants who answered the accommodation items before commitment and accessibility items ( $r = -.64$ ) and for those participants who answered the accommodation items after the commitment and accessibility items ( $r = -.50$ ). These correlations were then converted to  $z$  scores, and the difference between them was found to be significant ( $z = 1.97$ ,  $p < .05$ ).

Similar to Study 1, the association between commitment and accessibility of commitment was significant ( $r = -.57$ ,  $p < .001$ ) when averaged across the two question orders. The VIF was calculated for a multiple regression using commitment and accessibility of commitment to predict accommodation behavior,  $VIF = 1.48$ . This VIF was below the commonly employed criterion for indicating the presence of multicollinearity ( $VIF > 10$ ).

*Commitment, accommodation, and willingness to sacrifice.* Consistent with Hypothesis 3, accommodation was found to be correlated with commitment ( $r = .41$ ,  $p < .01$ ). In addition, consistent with Hypothesis 4, commitment was found to be positively associated with willingness to sacrifice for the relationship ( $r = .38$ ,  $p < .01$ ; see Table 1 for correlations between all Study 2 variables).

*Commitment, accessibility of commitment, and accommodation.* Hypothesis 5 predicted that accessibility of commitment would

moderate the relationship between commitment and accommodative behavior. Commitment and accessibility of commitment scores were centered (Aiken & West, 1991), and then multiple regressions were conducted in which accommodation was regressed on commitment, accessibility of commitment, and the interaction of these two terms. A two-step approach was taken to examine this hypothesis. First, commitment and accessibility of commitment were entered into a regression model predicting accommodation (see Table 5), in which commitment, but not accessibility of commitment, was found to significantly predict accommodation ( $R^2$  for the model = .175). Next, the interaction term between commitment and accessibility was added to the model, and this interaction term significantly predicted accommodation ( $R^2$  for the model = .193). Furthermore, the change in the variance in accommodation accounted for by the first and second models was significant,  $\Delta R^2 = .018$ ,  $F(1, 316) = 7.50$ ,  $p < .01$ , indicating that the model including the interaction between commitment and accessibility of commitment accounted for significantly more variance than did the model not including this term.

In short, commitment was found to be positively (and significantly) associated with accommodation (consistent with Hypothesis 3). In addition, this main effect was qualified by an interaction such that the association between commitment and accommodation was moderated by accessibility of commitment (see Table 5). Specifically, as accessibility of

**Table 5.** Multiple regression analyses: Commitment level, accessibility of commitment, and the interaction predicting accommodative behavior

Model	$\beta$	$t$	$p <$	$R^2$	$F$	$df$	$p <$
Step 1				.175	33.68	2, 318	.001
Commitment (C)	.360	5.82	.01				
Accessibility (A)	-.091	-1.48	.15				
Step 2				.193	25.27	3, 317	.001
Commitment (C)	.447	6.44	.01				
Accessibility (A)	-.088	-1.44	.15				
C $\times$ A	-.159	-2.67	.01				

Note. Test of  $R^2$  change from Step 1 to Step 2:  $\Delta R^2 = .018$ ;  $F(1, 316) = 7.50$ ,  $p < .01$ .

**Table 6.** Multiple regression analyses: Commitment level, accessibility of commitment, and the interaction predicting willingness to sacrifice

Model	$\beta$	$t$	$p <$	$R^2$	$F$	$df$	$p <$
Step 1				.145	26.92	2, 318	.001
Commitment (C)	.355	5.64	.01				
Accessibility (A)	-.042	-0.67	.51				
Step 2				.156	19.62	3, 317	.001
Commitment (C)	.426	5.99	.01				
Accessibility (A)	-.040	-0.64	.53				
C $\times$ A	-.129	-2.11	.05				

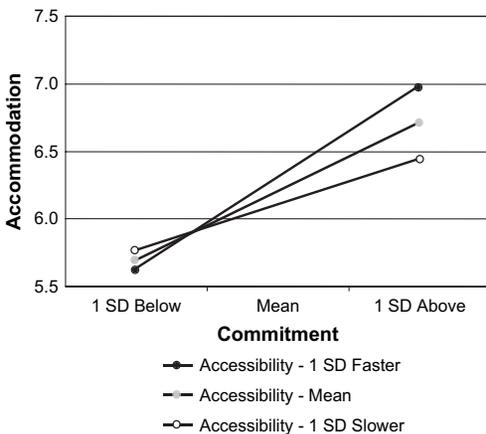
Note. Test of  $R^2$  change from Step 1 to Step 2:  $\Delta R^2 = .011$ ;  $F(1, 316) = 4.12$ ,  $p < .05$ .

commitment increased, the strength of the association between commitment and accommodation increased (see Figure 2). These results show that speed of responding to commitment items moderates the relationship between commitment and accommodation.

*Examining potential confounding variables and accommodation.* As in Study 1, several variables were correlated with commitment or accessibility of commitment, and if the association was significant, they were included in multiple regression models predicting accommodation. Specifically, satisfaction level in the relationship, alternatives to the relationship, investments in the relationship, sex of participant, geographic status of the relationship (i.e., long distance or

proximal), relationship status (i.e., casual or serious dating), relationship exclusivity (i.e., dating or not dating others), and relationship duration were included in the multiple regression analyses. With the inclusion of these variables, commitment remained positively associated with accommodation, but more importantly, accessibility of commitment continued to moderate these associations ( $p < .01$ ; see Table 7). Specifically, as accessibility increased, the strength of the association between commitment and accommodation increased. The results of this multiple regression provide further support for Hypothesis 5, indicating that accessibility moderates the relationship between commitment and accommodative behavior, even controlling for a range of relational and demographic variables.

In addition to the potential confounding variables described above, we examined the possibility that the bases of commitment (i.e., satisfaction, alternatives, and investments) each interacted with the accessibility of commitment in predicting accommodation. Separate regression analyses were conducted, adding (a) satisfaction and the interaction between satisfaction and accessibility of commitment, (b) alternatives and the interaction between alternatives and accessibility of commitment, and (c) investments and the interaction between investments and accessibility of commitment to the model including the control variables. Even when controlling for each of the bases of commitment and their respective interactions with accessibility of commitment, the



**Figure 2.** Accommodation Responses at Different Levels of Accessibility and Commitment.

**Table 7.** *Commitment level, accessibility of commitment, interaction, and control variables predicting accommodation*

Model	$\beta$	$t$	$p <$	$R^2$	$F$	$df$	$p <$
				.226	9.03	11, 292	.001
Long distance	.035	0.68	.50				
Gender	-.175	-3.39	.01				
Status	-.069	-0.90	.37				
Exclusive	-.035	-0.51	.61				
Duration	-.042	-0.76	.45				
Satisfaction	.199	2.68	.01				
Alternatives	-.128	-2.04	.05				
Investments	-.013	-0.20	.85				
Commitment (C)	.305	3.08	.01				
Accessibility (A)	-.069	-1.10	.28				
$C \times A$	-.167	-2.73	.01				

interaction between commitment and accessibility of commitment remained a significant predictor of accommodation. Furthermore, none of the interaction terms involving the bases of commitment and accessibility were significant in any of the models predicting accommodation (all  $ps > .05$ ).

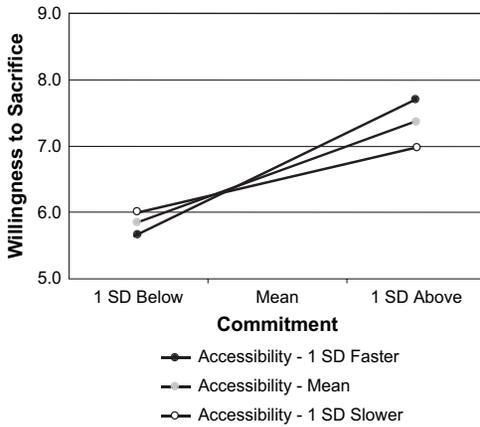
*Commitment, accessibility of commitment, and willingness to sacrifice.* Hypothesis 6 predicted that accessibility of commitment would moderate the relationship between commitment and willingness to sacrifice. As with Hypothesis 5, this hypothesis was tested using multiple regression analyses with centered scores for commitment and accessibility of commitment. Again, a two-step approach was taken to examine this hypothesis. First, commitment and accessibility of commitment were entered into a regression model predicting willingness to sacrifice (see Table 6), and commitment, but not accessibility of commitment, was found to significantly predict willingness to sacrifice ( $R^2$  for the model = .145). Next, the interaction term between commitment and accessibility was added to the model, and this interaction term significantly predicted willingness to sacrifice ( $R^2$  for the model = .156). Furthermore, the change in the variance in willingness to sacrifice accounted for by the first and second models was significant,  $\Delta R^2 =$

.011,  $F(1, 316) = 4.12$ ,  $p < .05$ , indicating that the model including the interaction between commitment and accessibility of commitment accounted for significantly more variance than did the model not including this term.

In short, commitment was found to be positively (and significantly) associated with willingness to sacrifice (consistent with Hypothesis 4). Again, this main effect was qualified by an interaction showing that as accessibility of commitment increased, the strength of the relationship between commitment and willingness to sacrifice increased (see Table 6 and Figure 3).<sup>3</sup>

*Examining potential confounding variables and willingness to sacrifice.* As with accommodation, analyses were conducted testing accessibility as a moderator of the association between commitment and willingness to sacrifice, controlling for satisfaction level in the relationship, alternatives to the

3. Similar to Study 1, for some sentence stem trials, participants responded in the same manner to both a sentence stem completion word and its antonym. Again, analyses predicting accommodation and willingness to sacrifice were run after setting all trials in which participants responded the same way to a completion word and its antonym to missing data. The results of these analyses parallel the reported results, and show the same pattern of significant findings.



**Figure 3.** Willingness to Sacrifice Responses at Different Levels of Accessibility and Commitment.

relationship, investments in the relationship, sex of participant, geographic status of the relationship (i.e., long distance or proximal), relationship status (i.e., casual or serious dating), relationship exclusivity (i.e., dating or not dating others), and relationship duration. With the inclusion of these variables, commitment remained positively associated with willingness to sacrifice and accessibility of commitment continued to moderate these associations ( $p < .01$ ; see Table 8). Paralleling the findings with accommodation, as accessibility increased, the strength of the association

between commitment and willingness to sacrifice increased. The results of these multiple regressions provide further support for Hypothesis 6, demonstrating that accessibility moderates the relationship between commitment and willingness to sacrifice, controlling for relational and demographic variables.

Additional analyses examined the possibility that the bases of commitment (i.e., satisfaction, alternatives, and investments) each interacted with the accessibility of commitment in predicting willingness to sacrifice. Three separate regression analyses were conducted, adding (a) satisfaction and the interaction between satisfaction and accessibility of commitment, (b) alternatives and the interaction between alternatives and accessibility of commitment, and (c) investments and the interaction between investments and accessibility of commitment to the model including the control variables. In the second step of each analysis, commitment and the interaction between commitment and accessibility of commitment were added. After controlling for each of the bases of commitment and their respective interactions with accessibility of commitment, the interaction between commitment and accessibility of commitment remained a significant predictor of accommodation and willingness to sacrifice. As with accommodation, none of the interaction terms involving the bases of commitment and

**Table 8.** Commitment level, accessibility of commitment, interaction, and control variables predicting willingness to sacrifice

Model	$\beta$	$t$	$p <$	$R^2$	$F$	$df$	$p <$
				.208	8.23	11, 292	.001
Long distance	.008	0.14	.89				
Gender	-.241	-4.63	.01				
Status	-.174	-2.26	.05				
Exclusive	-.123	-1.73	.10				
Duration	-.003	-0.05	.97				
Satisfaction	.020	0.27	.79				
Alternatives	.008	0.15	.89				
Investments	-.010	0.14	.89				
Commitment (C)	.515	5.15	.01				
Accessibility (A)	-.015	-0.24	.82				
C $\times$ A	-.168	-2.71	.01				

accessibility were significant in any of the models predicting accommodation or willingness to sacrifice (all  $ps > .05$ ).

### Discussion

Study 2 replicated past research, which found that commitment predicts accommodation (Hypothesis 3; Rusbult et al., 1996) and willingness to sacrifice (Hypothesis 4; Van Lange, Agnew, et al., 1997). More importantly, this study expanded on Study 1 by demonstrating that accessibility of commitment moderates the association between commitment and accommodation (Hypothesis 5) as well as willingness to sacrifice (Hypothesis 6). Commitment predicted accommodation and willingness to sacrifice better for those participants for whom commitment was particularly accessible. These results held even after controlling for a range of different relational and demographic variables in the regressions. Although the size of the interaction effects is comparatively small (less than 2%), they are reliably significant. Overall, Study 2 provides further support for the application of the concept of accessibility and related methodologies to the study of commitment.

### General Discussion

This research examined the accessibility of relationship commitment as a moderator of the association between commitment and relationship persistence as well as commitment and accommodative behavior and willingness to sacrifice. Study 1 supported the hypothesis that commitment would predict subsequent relationship persistence (Hypothesis 1) and that the accessibility of commitment would moderate this association such that commitment would more strongly predict relationship persistence for those for whom commitment was particularly accessible (Hypothesis 2). Furthermore, this effect was present for individuals initiating relationship dissolution but not for those whose partners were responsible for the breakups. In addition, the 7-month time lag between Phase 1 and the collection of persistence data at Phase 2 makes it less likely that some unex-

pected characteristic of Phase 1 data collection, such as demand characteristics, led to these results. In short, Study 1 suggests that accessibility can help researchers understand the role of commitment on behaviors and cognition over the long term.

Study 2 built on these results by demonstrating the ability of accessibility of commitment to moderate commitment's association with accommodative behavior and willingness to sacrifice (Hypotheses 3–6), two important variables that past work has shown are associated with commitment (Rusbult et al., 1994). This study suggests that the benefits in prediction gained by measuring accessibility of commitment may apply to a range of relationship behaviors.

Overall, these studies provide good support for the benefits of measuring accessibility of commitment and applying this cognitive construct to relationship research. As is shown in this research, this approach can improve our understanding of how commitment is associated with relationship cognition and behavior. Several predictions based on past research on accessibility were supported in this research. First, paralleling a common finding in the attitudes literature, a significant correlation was found between extremity of commitment and accessibility. However, it should be noted that participants in these two studies tended to show mostly moderate to high levels of commitment; therefore, extremity of commitment only occurred in the positive direction. Second, and more importantly, results from this work support past research on accessibility, with accessibility of commitment moderating the association between commitment and important relationship variables (i.e., persistence, accommodation, and willingness to sacrifice).

These findings indicate that accessibility of commitment moderates prediction of a behavior (i.e., relationship persistence) measured 7 months later and is consistent with the position that accessibility can be characterized as chronic and stable. However, additional work including multiple measures over time would be needed to determine the level of stability of commitment accessibility. The results of the two studies presented here are consistent with previous theory and research

on accessibility (e.g., Fazio & Towles-Schwen, 1999). In addition, it is likely that other constructs such as relationship-relevant attitudes, beliefs, and goals (e.g., attachment; Whitaker et al., 1999) could be described as varying in terms of chronic levels of accessibility. For example, the accessibility of both commitment and attachment may be important when comparing the extent to which these two variables influence relationship cognition and behavior. This may be especially valuable when considering constructs with potentially competing effects (e.g., a person with high commitment but also high levels of avoidance in attachment style). In short, future research is needed to examine the effects of accessibility for multiple variables at once.

More research is needed to examine whether this effect occurs mostly through spontaneous processes, deliberate processing, or, as indicated to be possible by the MODE model, some combination of both processes. Certainly, it is possible to think of relationship behaviors that are relatively spontaneous (e.g., responses to a rude comment by a partner) and very deliberate (e.g., consideration of marriage), and accessibility should matter for both those situations. The possibility of mixed effects of accessibility (i.e., both spontaneous and deliberate) has important implications for understanding commitment. During a mixed process, effects of accessibility of commitment may occur in multiple ways, including biased recall and biased judgments as well as deliberate use of commitment in judgment (Fazio, Roskos-Ewoldsen, & Powell, 1994).

Future research can examine if accessibility of the theorized bases of commitment (i.e., satisfaction level, quality of alternatives, and size of investments) moderates the theorized association between commitment as well as relationship behavior. These variables are theorized to underlie commitment, which suggests that commitment would likely moderate their associations with relationship outcome variables. However, if one or more of these variables were highly accessible, a direct effect (i.e., not moderated by commitment) may be found, indicating the importance of examining accessibility of the investment model variables.

Accessibility has numerous implications for understanding influences on relationship cognition and behavior, especially when considering constructs with potentially competing effects. It is also possible that the accessibility of relationship constructs may be similar across individuals. Some people's relationship cognitions may simply be more chronically accessible across various relationship domains. In short, future research is needed to examine the effects of accessibility for multiple variables at once.

From the perspective of the close relationship researcher, this study represents a useful approach to the construct of commitment and the prediction of relationship cognition and behavior. As demonstrated in this research, conceptualizing commitment and potentially other relationship variables as partially cognitive constructs may improve relationship researchers' ability to understand and make predictions about these variables. In addition, this study adds to the social cognition literature by demonstrating that accessibility can be applied to the prediction by commitment of interpersonal behaviors within close relationships.

In addition to addressing theoretical questions regarding the role of accessibility and commitment, there are several aspects of this research that should be highlighted. Similar to other recent work in the field of personal relationships (e.g., Baldwin, 1992; Baldwin, Carrell, & Lopez, 1990; Baldwin et al., 1996; Fincham & Beach, 1999; Pierce & Lydon, 1998; Whitaker et al., 1999), this research successfully applies social cognitive constructs to the investigation of interpersonal relationship concepts, like commitment. As with these past studies, this research highlights the benefits of borrowing from social cognition theory and applying these ideas to research studying relationships.

Several areas of future research are suggested by these results. This research is correlational in nature. Experimental priming studies that manipulate accessibility of commitment would allow for examinations of the causal pathways underpinning these findings and would greatly expand knowledge in this area. In addition, an examination of the fac-

tors that make relationship constructs more or less accessible, either chronically or temporally, would improve researchers' ability to predict when a cognitive construct will influence cognition and behavior.

A large amount of research has demonstrated an association between commitment and relationship cognition and behaviors. These results extend this line of research and theory by suggesting that the more accessible commitment is, the better it will guide behavior. For an individual involved in a romantic relationship, commitment can be an important guide of his or her behavior. However, the extent to which commitment guides behavior will vary depending on how accessible commitment is to that individual.

## References

- Adams, J. M., & Jones, W. H. (1997). The conceptualization of marital commitment: An integrative analysis. *Journal of Personality and Social Psychology, 72*, 1177–1196.
- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage.
- Arriaga, X. B., & Agnew, C. R. (2001). Being committed: Affective, cognitive, and conative components of relationship commitment. *Personality and Social Psychology Bulletin, 27*, 1190–1203.
- Arriaga, X. B., & Jones, M. D. (2004). *Components of commitment in relational and organizational contexts*. Unpublished manuscript, Purdue University.
- Baldwin, M. W. (1992). Relational schemas and the processing of social information. *Psychological Bulletin, 112*, 461–484.
- Baldwin, M. W., Carrell, S. E., & Lopez, D. F. (1990). Priming relationship schemas: My advisor and the Pope are watching me from the back of my mind. *Journal of Experimental Social Psychology, 26*, 435–454.
- Baldwin, M. W., Keelan, J. P. R., Fehr, B., Enns, V., & Koh-Rangarajoo, E. (1996). Social-cognitive conceptualization of attachment working models: Availability and accessibility effects. *Journal of Personality and Social Psychology, 71*, 94–109.
- Bargh, J. A. (1990). Auto-motives: Preconscious determinants of social interaction. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Vol. 2. Foundations of social behavior* (pp. 93–130). New York: Guilford.
- Bargh, J. A., Bond, R. N., Lombardi, W. J., & Tota, M. E. (1986). The additive nature of chronic and temporary sources of construct accessibility. *Journal of Personality and Social Psychology, 50*, 869–878.
- Bargh, J. A., Lombardi, W. J., & Higgins, E. T. (1988). Automaticity of chronically accessible constructs in person  $\times$  situation effects on person perception: It's just a matter of time. *Journal of Personality and Social Psychology, 55*, 599–605.
- Bargh, J. A., & Thein, R. D. (1985). Individual construct accessibility, person memory, and the recall-judgment link: The case of information overload. *Journal of Personality and Social Psychology, 49*, 1129–1146.
- Bizer, G. Y., & Krosnick, J. A. (2001). Exploring the structure of strength-related attitude features: The relation between attitude importance and attitude accessibility. *Journal of Personality and Social Psychology, 81*, 566–586.
- Chartrand, T. L., & Bargh, J. A. (1996). Automatic activation of social information processing goals: Non-conscious priming reproduces effects of explicit conscious instructions. *Journal of Personality and Social Psychology, 71*, 464–478.
- Fazio, R. H. (1990). A practical guide to the use of response latency in social psychological research. In C. Hendrick & M. Clark (Eds.), *Research methods in personality and social psychology. Review of personality and social psychology, 11* (pp. 74–97). Thousand Oaks, CA: Sage Publications.
- Fazio, R. H., Roskos-Ewoldsen, D. R., Powell, M. C. (1994). Attitudes, perception, and attention. In P. M. Niedenthal & S. Kitayama (Eds.), *The heart's eye: Emotional influences in perception and attention* (pp. 197–216). San Diego, CA: Academic Press.
- Fazio, R. H., Sanbonmatsu, D. M., Powell, M. C., & Kardes, F. R. (1986). On the automatic activation of attitudes. *Journal of Personality and Social Psychology, 50*, 229–238.
- Fazio, R. H., & Towles-Schwen, T. (1999). The MODE model of attitude-behavior processes. In S. Chaiken & Y. Trope (Eds.), *Dual process theories in social psychology* (pp. 97–116). New York: Guilford.
- Fazio, R. H., & Williams, C. J. (1986). Attitude accessibility as a moderator of the attitude-perception and attitude-behavior relations: An investigation of the 1984 presidential election. *Journal of Personality and Social Psychology, 51*, 505–514.
- Fincham, F. D., & Beach, S. R. H. (1999). Marriage in the new millennium: Is there a place for social cognition in marital research? *Journal of Social and Personal Relationships, 16*, 685–704.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133–168). New York: Guilford.
- Higgins, E. T., Rholes, W. S., & Jones, C. R. (1977). Category accessibility and impression formation. *Journal of Experimental Social Psychology, 13*, 141–154.
- Houston, D. A., & Fazio, R. H. (1989). Biased processing as a function of attitude accessibility: Making objective judgments subjectively. *Social Cognition, 7*, 51–66.
- Jaccard, J. (2001). Interaction effects in logistic regression. *Sage University Papers Series on Quantitative Applications in the Social Sciences*. Thousand Oaks, CA: Sage.
- Johnson, M. P. (1991). Commitment to personal relationships. *Advances in Personal Relationships, 3*, 117–143.
- Krosnick, J. A., Boninger, D. S., Chuang, Y. C., Berent, M. K., & Carnot, C. G. (1993). Attitude strength: One construct or many related constructs? *Journal of Personality and Social Psychology, 65*, 1132–1151.
- Le, B., & Agnew, C. R. (2003). Commitment and its theorized determinants: A meta-analysis of the investment model. *Personal Relationships, 10*, 37–57.

- Levinger, G. (1988). Can we picture "love"? In R. J. Sternberg & M. L. Barnes (Eds.), *The psychology of love* (pp. 139–158). New Haven, CT: Yale University Press.
- Pierce, T., & Lydon, J. (1998). Priming relational schemas: Effects of contextually activated and chronically accessible interpersonal expectations on responses to a stressful event. *Journal of Personality and Social Psychology*, *75*, 1441–1448.
- Randall, D. M., Fedor, D. B., & Longenecker, C. O. (1990). The behavioral expression of organizational commitment. *Journal of Vocational Behavior*, *36*, 210–224.
- Rusbult, C. E. (1983). A longitudinal test of the investment model: The development (and deterioration) of satisfaction and commitment in heterosexual involvements. *Journal of Personality and Social Psychology*, *45*, 101–117.
- Rusbult, C. E., Bissonnette, V. L., Arriaga, X. B., & Cox, C. L. (1998). Accommodation processes during the early years of marriage. In T. N. Bradbury (Ed.), *The developmental course of marital dysfunction* (pp. 74–113). New York: Cambridge University Press.
- Rusbult, C. E., & Buunk, B. P. (1993). Commitment processes in close relationships: An interdependence analysis. *Journal of Social and Personal Relationships*, *10*, 175–204.
- Rusbult, C. E., Drigotas, S. M., & Verette, J. (1994). The investment model: An interdependence analysis of commitment processes and relationship maintenance phenomena. In D. J. Canary & L. Stafford (Eds.), *Communication and relational maintenance* (pp. 115–139). San Diego, CA: Academic Press.
- Rusbult, C. E., Martz, J. M., & Agnew, C. R. (1998). The Investment Model Scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships*, *5*, 357–391.
- Rusbult, C. E., Verette, J., Whitney, G. A., Slovik, L. F., & Lipkus, I. (1991). Accommodation processes in close relationships: Theory and preliminary empirical evidence. *Journal of Personality and Social Psychology*, *60*, 53–78.
- Rusbult, C. E., Yovetich, N. A., & Verette, J. (1996). An interdependence analysis of accommodation processes. In G. J. O. Fletcher & J. Fitness (Eds.), *Knowledge structures in close relationships: A social psychological approach* (pp. 63–90). Mahwah, NJ: Erlbaum.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: Wiley.
- Van Lange, P. A. M., Agnew, C. R., Harinck, F., & Steemers, G. E. M. (1997). From game theory to real life: How social value orientation affects willingness to sacrifice in ongoing close relationships. *Journal of Personality and Social Psychology*, *73*, 1330–1344.
- Van Lange, P. A. M., Rusbult, C. E., Drigotas, S. M., Arriaga, X. B., Witcher, B. S., & Cox, C. L. (1997). Willingness to sacrifice in close relationships. *Journal of Personality and Social Psychology*, *72*, 1373–1395.
- Whitaker, D. J., Beach, S. R. H., Etherton, J., Wakefield, R., & Anderson, P. L. (1999). Attachment and expectations about future relationships: Moderation by accessibility. *Personal Relationships*, *6*, 41–56.