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# From the Interpersonal to the International: Understanding Commitment to the “War on Terror”

**Christopher R. Agnew**

**Aaron M. Hoffman**

**Justin J. Lehmiller**

**Natasha T. Duncan**

*Purdue University*

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*Applying constructs from the investment model used traditionally to understand interpersonal commitment, the present investigation seeks to elucidate social cognitive antecedents of commitment to the war on terror waged by the United States. In Study 1, satisfaction with, investments in, and alternatives to the war on terror predict levels of commitment to the war beyond several important control variables. In Study 2, levels of satisfaction with, investments in, and alternatives to the war are experimentally manipulated. The highest levels of commitment to the war are observed among participants exposed to a high satisfaction, high investment, and low alternatives scenario, and the lowest levels are among those exposed to a low satisfaction, low investment, and high alternatives scenario. These results support broadening the targets of commitment normally considered within the context of the investment model and suggest applying relational models to understanding broader societal concerns.*

**Keywords:** *commitment; satisfaction; investments; alternatives; political attitudes; political psychology*

Following the September 11, 2001, terrorist attacks on the United States, President George W. Bush declared that the United States was fighting a “war on terror.” Although many Americans supported the president’s efforts initially, support for the war has waned as time has passed and an end to hostilities appears distant. For example, a *USA Today*/Gallup poll taken in March 2007 showed that approval for President Bush’s

handling of the war on terror had dropped 26 points since Gallup began polling Americans on this question in 2003 (with approval dropping from 71% to 45%). Still, nearly half of Americans remain committed to the war on terror (for this and other polls on the war, see [www.pollingreport.com](http://www.pollingreport.com), accessed April 19, 2007). Why are some people committed to particular foreign policy causes or lines of action? Although political scientists and sociologists have long been interested in the stability of people’s commitments to foreign policy goals (e.g., Hurwitz & Peffley, 1987), social psychologists have contributed less to the discussion of international issues (with some dated exceptions; e.g., see Kelman, 1965). This is unfortunate because relatively little is known about the factors that structure people’s beliefs about international affairs.

In approaching this question from a social psychological perspective, we turned to the investment model, a well-known and empirically supported model of interpersonal commitment (Agnew, Van Lange, Rusbult, & Langston, 1998; Le & Agnew, 2003; Rusbult, 1980; Rusbult, Martz, & Agnew, 1998) that, to our knowledge, has not been applied to questions about public support for

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**Authors’ Note:** We thank Ximena Arriaga and Victor Ottati for invaluable input regarding this research. Correspondence concerning this article should be addressed to Christopher R. Agnew, Department of Psychological Sciences, Purdue University, 703 Third Street, West Lafayette, IN 47907-2081; email: [agnew@purdue.edu](mailto:agnew@purdue.edu).

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government actions. Whereas existing public opinion research often focuses on factors such as partisanship to understand where people stand on foreign policy issues (e.g., Zaller, 1994), the investment model would predict that people use specific performance criteria to determine the value of "staying the course." In particular, the investment model, with its roots in interdependence theory, suggests that commitments are a function of satisfaction with, investments in, and alternatives to the foreign policies governments pursue. As such, the investment model distinguishes itself from political science models that suggest people favor foreign policy decisions based on general ideological rules of thumb. Based on available evidence, we view the investment model as providing a general framework for understanding the antecedents of commitment to any line of action, including those in the international realm. We begin with a brief review of the investment model, followed by presentation of the results from two studies that lend support to the model's applicability within the international realm.

### The Investment Model of Commitment

Most extant models of interpersonal commitment are based on the notion that intent to continue with or end a given relationship is a function of both factors drawing one toward the involvement and factors moving one away from the involvement. Commitment can be seen, then, as the degree to which attracting powers overwhelm repelling forces (Adams & Jones, 1997; Arriaga & Agnew, 2001; Johnson, 1991; Levinger, 1988). This construal lends itself well to an interdependence analysis of commitment processes (Kelley & Thibaut, 1978; Rusbult, Arriaga, & Agnew, 2001; Thibaut & Kelley, 1959).

According to interdependence theory, an interpersonal relationship continues when the outcomes from that relationship are beneficial and satisfying to the individuals involved. Extending interdependence theory, Rusbult (1980) proposed the investment model to examine the processes by which people persist within interpersonal relationships. Specifically, commitment is characterized by an intention to remain in a relationship, a psychological attachment to a partner, and a long-term orientation toward the partnership (Arriaga & Agnew, 2001; Rusbult & Buunk, 1993). Furthermore, commitment is seen as (a) strengthened by the amount of satisfaction that one derives from a relationship and (b) weakened by possible alternatives to that relationship. Both of these concepts are derived directly from interdependence theory. In addition, Rusbult introduced the concept of investments, holding that they further fuel commitment. Each of these three bases of commitment is reviewed briefly, both in its traditional interpersonal context and in its application to the international realm.

According to interdependence theory, rewards received are weighed against costs incurred from a partnership to determine the outcomes that have been gained from a relationship. Outcomes are compared to a personal standard or expectation of what constitutes acceptable outcomes, known in interdependence terminology as the comparison level (CL). Satisfaction level is a function of the CL and current relational outcomes: When current outcomes surpass the CL, one is satisfied with the relationship. When current outcomes fall short of this internal standard, dissatisfaction occurs. Thus, satisfaction is the subjective evaluation of the relative positivity or negativity that one experiences in a given relationship.

Quality of alternatives to the current relationship is also an important feature of the investment model. Perceiving that an alternative partner will provide superior outcomes to the current relationship can lead one toward that alternative and away from the current relationship. In the absence of other factors, individuals choose partners providing superior outcomes. However, if alternatives are not present, one may persist within a partnership for lack of better options. Furthermore, attractive alternatives are not necessarily other people or other relationships. It is possible that having no relationship is seen as preferable to any given available relationship. The relative attractiveness of alternatives weakens commitment to a current involvement.

Rusbult (1980) proposed that investment size also contributes to the stability of a partnership. Investments are those concrete or intangible resources attached to the partnership that would be lost or seriously diminished upon relationship dissolution (Goodfriend & Agnew, 2002). Investments include intrinsic resources that are put into the partnership, such as time and effort, experienced emotions, disclosure of personal information, and the importance the relationship holds for one's identity. Furthermore, extrinsic resources, such as mutual social networks, the social status that the relationship brings, and material possessions, serve as investments that contribute to commitment (Rusbult, Drigotas, & Verette, 1994). The more one has invested in a relationship, the more one risks losing in terminating the involvement. Thus, investments bolster commitment.

Individually and collectively, satisfaction level, quality of alternatives, and investment size are posited to be the antecedents of commitment. Thus, the investment model can be regarded as an additive, main effects model. The model does not suggest that any one of the three predictors will be particularly influential in driving commitment. Rather, it suggests that all three factors may contribute to the prediction of commitment in an additive fashion. The utility and robustness of the investment model has been demonstrated in numerous studies (see Le & Agnew, 2003, for meta-analytic support).

Furthermore, the model has been employed in a range of studies applying the model to participants of diverse ethnicities (Davis & Strube, 1993; Lin & Rusbult, 1995), homosexual and heterosexual partnerships (Duffy & Rusbult, 1986; Kurdek, 1991, 1995), abusive relationships (Choice & Lamke, 1999; Rusbult & Martz, 1995), socially marginalized relationships (Lehmiller & Agnew, 2006, in press), and friendships (Lin & Rusbult, 1995; Rusbult, 1980).

Although the majority of evidence supporting the investment model comes from studies of interpersonal relationships, the model has also been employed in other, nonrelational contexts (see Le & Agnew, 2003). For instance, organizational and job commitment (cf. Farrell & Rusbult, 1981; Oliver, 1990) have been predicted in studies based on investment model constructs. In addition, Ping (1993, 1997) adapted the model to describe business interactions, and Lyons and Lowery (1989) have conceptualized commitment to one's residential community using a similar perspective. The investment model has been used successfully to predict patients' adherence to a medical regimen (Putnam, Finney, Barkley, & Bonner, 1994), college students' commitment to their schools (cf. Geyer, Brannon, & Shearon, 1987), and commitment to participating in musical activities (Koslowsky & Kluger, 1986). Finally, the sport commitment model is rooted firmly in the investment model (Raedeke, 1997; Schmidt & Stein, 1991) and has been used to predict commitment of soccer and cricket players to their sports (Carpenter & Coleman, 1998; Carpenter & Scanlan, 1998).

### Applying the Investment Model to the War on Terror

Consistent with past research based on the investment model, level of satisfaction with, alternatives to, and investments in any target of commitment should influence the level of commitment to that target. Although most targets of commitment in past research have been interpersonal in nature (Le & Agnew, 2003), the model's general framework has been shown to apply to noninterpersonal targets as well, as referenced previously. We see the model as applicable to understanding commitment in the international realm, with a wide range of potential targets of commitment. For example, commitment to international treaties, international alliances, and democracy promotion could all be subject to an investment model analysis. In the current research, we focused on commitment to the war on terror.

Satisfaction with the war on terror should influence commitment to that cause, just as satisfaction with a relationship partner influences commitment to that partner. Thus, the more positive one's perceptions of satisfaction are with respect to the war on terror, the

more one should be committed to continuing to wage the war. Satisfaction may be fueled by consideration of the outcomes that have resulted from the war on terror. For example, if one believed that the war has reduced the chances of additional terrorist attacks on American soil, one would likely feel satisfied with the war on terror and be committed to it. In contrast, if one believed that the war hurts America's image abroad and may spur future terrorist attacks, one would likely be dissatisfied with the war on terror and less committed to it.

Perceived alternatives to waging the war on terror should also influence commitment. Alternatives could be considered both at the initiation of the war and after its initiation. For instance, in the months preceding the American invasion of Iraq in 2003 (which the Bush administration includes as part of its war on terror), several alternatives to an armed invasion were suggested, including continuing economic and diplomatic sanctions already in place against Iraq. The extent to which a person viewed such alternatives as compelling should have a negative effect on perceived commitment to the war effort. In contrast, if one saw no real alternatives other than attacking Iraq, commitment to the war on terror should have increased. Similarly, a person could consider whether he or she perceives compelling alternatives to the war on terror at the present time. Either way, the basic investment model prediction remains the same: Better perceived alternatives to the war should predict decreased commitment to continuing it.

Finally, the investment model suggests that greater perceived investment in the war on terror should yield greater commitment to it. Investments are not only tangible resources, such as troops and equipment, but also intangible resources, such as time, effort, and reputation. If a person sees the United States as having invested considerably in the war on terror, that person will be more likely to feel committed to the war effort because to discontinue the effort risks losing those investments. In contrast, those who do not judge the resources the United States has put into the war as particularly large or significant will be less committed to the war effort.

Although the investment model suggests that any one of the three factors—satisfaction, alternatives, and investments—is capable of influencing commitment to the war effort, some combinations of these predictor variables are more likely to promote commitment than others. That is, there are optimal commitment-promoting and commitment-preventing conditions that feature differing combinations of the predictor variables. Highest commitment to the war should emerge if the war is perceived as producing satisfactory outcomes, if the alternatives to the war are seen as inferior, and if investments in the war effort are seen as considerable. In contrast, lowest commitment should emerge if the

war is perceived as producing unsatisfactory outcomes, if alternatives to the war are seen as superior, and if investments in the war effort are seen as insignificant. Mixed conditions that feature both commitment-promoting and commitment-preventing levels of the predictor variables should exhibit levels of commitment that fall somewhere in between the two optimal conditions.

The investment model approach to understanding individuals' commitment to an international policy such as the war on terror differs markedly from past political science efforts. Within political science, scholars have tended to focus on beliefs that predispose an individual to support particular policy objectives. For example, Wittkopf (1990) described how partisan divisions influence Americans' evaluation of U.S. foreign policy goals. In particular, more conservative Americans have been found to support "militant internationalism" over "cooperative internationalism," with the former implying a greater willingness to use force abroad. To establish its utility in this realm, it is important for the investment model approach to demonstrate incremental validity above and beyond such predictive political science approaches. To that end, the current research controls for several potentially important political variables, including general conservatism, a known predictor of support for military action.

### The Current Research

Perceived satisfaction with, alternatives to, and investment in the war on terror should predict level of commitment to the war, just as these investment model variables have been shown to predict level of commitment to interpersonal targets. We conducted two studies to assess the applicability of the investment model's constructs in predicting levels of commitment to the war on terror. In Study 1, we conducted a correlational study in which satisfaction with, alternatives to, and investments in the war on terror were measured and their ability to independently and collectively predict levels of commitment to the war on terror was assessed. In Study 2, we conducted an experimental study in which levels of satisfaction with, alternatives to, and investments in the war on terror were experimentally manipulated simultaneously to provide evidence for a causal connection between the investment model's specified antecedents of commitment and participants' reported levels of commitment to the war. To our knowledge, this is the first study that uses the experimental method to manipulate all three predictors of the investment model in an attempt to influence levels of commitment. Both studies included several important control variables to isolate the effects that may be attributed to the investment model constructs.

## STUDY 1

The purpose of Study 1 was to assess the degree to which participants' own perceptions of satisfaction, alternatives, and investments predict commitment to the war on terror. To do so, we revised the items in an instrument designed to assess the investment model components in the interpersonal realm to reflect this international target of commitment. We hypothesized that the same factors that underlie interpersonal commitment (i.e., satisfaction, alternatives, and investments) would also underlie commitment to the war on terror. More specifically, commitment will be greater when there is high satisfaction and investment together with low quality of alternatives than when there is low satisfaction and investment together with high quality of alternatives. Consistent with investment model predictions, we anticipated that each variable would predict commitment both when analyzed independently in correlational analyses and when analyzed simultaneously in a regression analysis. Moreover, we expected the associations between each variable and commitment to remain significant after accounting for potentially influential variables.

### Method

#### *Participants*

The sample consisted of 110 Purdue University undergraduates (77 males, 33 females). The sample was predominately Caucasian (74%), with some participants indicating they were Asian American (15%), African American (5%), or Other (6%). The mean age was 19.64 ( $SD = 1.16$ ; range = 18 to 23). A majority of participants (86%) indicated they were U.S. citizens, with the remainder (14%) reporting that they were citizens of a different country. Sixty-six percent of participants were registered voters; 45% voted in the 2004 presidential election. All participants received credit in partial fulfillment of a requirement for a general psychology course.

#### *Materials and Procedure*

College undergraduates were recruited to participate in a study of "perceptions of various international issues." After obtaining informed consent, we presented participants with the following measures by means of a computer program (MediaLab) designed to administer questionnaires.

*Investment model constructs.* Based on the Rusbult et al. (1998) Investment Model Scale, a 22-item measure used in measuring general interpersonal commitment and its hypothesized three bases, we created sets of items to tap the model's constructs as they relate to the war on terror. We created 4-item measures to assess

satisfaction level ( $\alpha = .91$ ), quality of alternatives ( $\alpha = .60$ ), investment size ( $\alpha = .80$ ), and commitment to the war ( $\alpha = .84$ ). For satisfaction with the war on terror, the items were as follows: "I feel satisfied with the U.S.'s waging of the 'war on terror,'" "The 'war on terror' is much more effective than the U.S.'s other counter-terrorism efforts," "The 'war on terror' being conducted by the U.S. is close to ideal," and "The 'war on terror' does a good job of fulfilling U.S. needs for international security." For alternatives to the war on terror, the following items were used: "U.S. alternatives to waging the 'war on terror' are not very appealing," "U.S. alternatives to the 'war on terror' are close to ideal (e.g., non-military counter-terrorism efforts or criminal justice responses)," "U.S. alternatives to the 'war on terror' are attractive," and "U.S. needs for international security could be easily fulfilled by counter-terrorism efforts other than the 'war on terror.'" For investments in the war on terror, the items were "The U.S. has put a great deal into the 'war on terror' that it would lose if the policy were to end," "Many aspects of U.S. policy have become linked to the 'war on terror' and the U.S. would lose all of this if it were to end its policy," "The U.S.'s relationships with other countries would be complicated if the U.S. were to end the 'war on terror,'" and "Compared to other countries, the U.S. has invested a great deal in the 'war on terror.'" Finally, for commitment to the war on terror, the items were as follows: "I want the 'war on terror' to last as long as necessary," "I am committed to the U.S. maintaining the 'war on terror' as long as necessary," "I would not feel very upset if the 'war on terror' were to fail," and "I am prepared for the 'war on terror' to be waged over a long period of time." All items were rated on a 9-point scale ranging from 1 (*do not agree at all*) to 9 (*agree completely*).

We conducted a confirmatory factor analysis to evaluate the structure of the items used as predictors of commitment to determine whether the three latent factors demonstrated as underlying similar items in the interpersonal domain also do so in the international domain. Specifically, we tested whether three separate latent constructs representing satisfaction, alternatives, and investments best fit the obtained data. We began by testing a three-factor model that constrained items thought to be assessing each of the three hypothesized latent dimensions to those dimensions (satisfaction, alternatives, and investments). All four items hypothesized to load on a Satisfaction factor loaded significantly on that factor (with  $t$  values ranging from 9.10 to 11.66, all paths significant at the .01 level). All four items thought to load on an Alternatives factor loaded significantly on that factor (with  $t$  values ranging from 4.23 to 6.46, all paths significant at the .01 level). Finally, all four items thought to

load on an Investments factor loaded significantly on that factor (with  $t$  values ranging from 2.73 to 6.86, all paths significant at the .01 level).

With respect to overall model fit, after allowing for the correlation of measurement error for items across hypothesized factors, results of structural equation analyses indicated that a three-factor model provided a good fit to the data,  $\chi^2(30) = 43.03$ , goodness-of-fit index = .94, with a desirable chi-square to degrees of freedom ratio of 1.43 (Loehlin, 1992). Next, we conducted a series of model comparisons. The overall fit of this three-factor model was compared with a one-factor model and with various two-factor models by computing the difference between the chi-square and degrees of freedom associated with each model (Loehlin, 1992; MacCallum, Wegener, Uchino, & Fabrigar, 1993). Chi-square difference tests indicated that the three-factor model provided a better fit to the data than did the one-factor model or the three possible two-factor models (detailed model comparison results available from the authors). The results suggest that the items crafted to measure the investment model predictors of commitment to the war on terror were perceived as distinct by participants, just as they have been shown to be in the interpersonal domain (Rusbult et al., 1998). Therefore, averaged scores were created for each construct and were used in analyses.

*Political conservatism.* The Conservatism–Liberalism Scale (Mehrabian, 1996) was administered to assess and control for participants' political orientation. Such a control was considered particularly important given the known potent association between conservatism and support for military action (e.g., Grote, Frieze, & Schmidt, 1997). The scale consists of seven items, such as "In any election, given a choice between a Republican and a Democratic candidate I will select the Republican" and "The major national media are too liberal for my tastes." These items were rated on a 9-point scale ranging from 1 (*do not agree at all*) to 9 (*agree completely*). Higher scores on this measure indicate stronger conservatism and lower scores indicate stronger liberalism ( $M = 5.56$ ,  $SD = 1.64$ ). Given high internal consistency ( $\alpha = .85$ ), an averaged measure was created and used in analyses.

*Knowledge about the war on terror.* We created a measure to assess and control for participants' overall knowledge about the war on terror, reasoning that knowledge about the war might be significantly associated with commitment to it. The measure consisted of the following five true–false and multiple-choice items: "What was the name of the party that controlled the government in Afghanistan just prior to the U.S. invasion in 2001?" "True or False: U.S. weapons inspectors found weapons of mass destruction in Iraq after the

**TABLE 1:** Study 1: Means, Standard Deviations, and Correlations Among Investment Model Variables

	<i>M</i>	<i>SD</i>	<i>Satisfaction</i>	<i>Alternatives</i>	<i>Investments</i>
Commitment	5.20	2.16	.77*** (.62***)	-.39*** (-.21*)	.57*** (.42***)
Satisfaction	4.67	2.01		-.46*** (-.31**)	.58*** (.44***)
Alternatives	4.72	1.43			-.19* (-.02)
Investments	5.66	1.32			

NOTE: Correlations in parentheses are controlling for political conservatism, knowledge about war on terror, citizenship, voter registration status, participation in the 2004 presidential election, sex, and race.  $N = 110$ .

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ .

U.S. invasion in 2003.” “What job or political office is now held by Donald Rumsfeld?” “What was the name of the Iraqi leader that was removed from power by the U.S. invasion?” “What event is considered the beginning of the war on terror?” Responses to each item were coded as 0 (*incorrect*) or 1 (*correct*). A total knowledge score was obtained by summing the number of correct responses ( $M = 4.05$ ,  $SD = 0.92$ ) and the total score was used in analyses.

*Other control variables.* Finally, participants completed several demographic questions, including questions about sex (0 = *female*, 1 = *male*), race (0 = *not Caucasian*, 1 = *Caucasian*), citizenship (0 = *not a U.S. citizen*, 1 = *U.S. citizen*), voter registration status (0 = *not registered to vote*, 1 = *registered to vote*), and voting participation in the 2004 presidential election (0 = *not voted*, 1 = *voted*). These measures, in addition to the measures of political conservatism and knowledge about the war on terror described previously, were used as controls in hypothesis testing.

After completing all measures, participants were fully debriefed and thanked for taking part in the study.

## Results and Discussion

Table 1 presents descriptive statistics and correlations between the investment model variables, with both no controls and controlling for political conservatism, knowledge about the war on terror, citizenship, voter registration status, participation in the 2004 presidential election, sex, and race. As shown in the table, the three variables were significantly correlated with each other, although the magnitude of the correlation between investments and quality of alternatives dropped to nonsignificance after removing the shared variance with the control variables.

More relevant to our hypotheses, commitment was positively correlated with satisfaction with the war on terror and investments in the war, and negatively correlated

with the perception of superior alternatives to the war. As can be seen in Table 1, all of these correlations remained significant in analyses that included the seven control variables. Thus, all three hypothesized relations between investment model constructs and commitment level were found independent of several important control variables.

Table 2 presents results from multiple regression analyses. Model 1 in Table 2 includes the seven control variables in a regression analysis predicting commitment to the war on terror. As can be seen, collectively, the control variables accounted for a large percentage of the variance in commitment ( $R^2 = .470$ ), but only conservatism yielded a significant beta.

Model 2 in Table 2 presents the results from an analysis that added the investment model variables to the control variables in predicting commitment level. Consistent with hypotheses, the overall amount of variance accounted for by this model is considerable ( $R^2 = .687$ ) and is significantly greater than the model containing only the control variables (Model 1 to Model 2  $R^2$  incremental increase = .217,  $p < .01$ ). Satisfaction level and investment size both yielded significant betas. Quality of alternatives was not found to be a significant predictor when included in a model with the other variables (only when considered independently, as shown in Table 1).<sup>1</sup>

We repeated the analysis of Model 2 including interactions between the investment model predictor variables, but none of the interactions was significant. This suggests that all reliable effects involving these predictors were main (additive) effects, as is expected from the investment model. The pattern of main effects observed is consistent with the idea that commitment should be highest under the most optimal conditions of high satisfaction, low alternatives, and high investments and lowest under the least optimal conditions of low satisfaction, high alternatives, and low investments. To further probe whether the data fit this pattern, we examined the predicted values of commitment at low versus high levels of each investment model variable, accounting for

**TABLE 2:** Study 1: Multiple Regression Results Predicting Commitment to the War on Terror

Variable	Model 1			Model 2		
	<i>B</i>	<i>SE B</i>	$\beta$	<i>B</i>	<i>SE B</i>	$\beta$
Conservatism	.77	.11	.59***	.33	.10	.25***
Knowledge	.01	.18	.01	.12	.14	.05
Citizenship	-.70	.57	-.11	-.19	.46	-.03
Voter registration	-.53	.47	-.12	-.55	.37	-.12
Voted in 2004 election	.18	.42	.04	.59	.24	.14
Sex	.49	.35	.10	.32	.28	.07
Race	.33	.44	.07	.24	.35	.05
Satisfaction level				.54	.09	.50***
Quality of alternatives				-.05	.10	-.03
Investment size				.26	.12	.16*
R <sup>2</sup>	.47			.69		

NOTE: *N* = 110.  
\**p* < .05. \*\*\**p* < .001.

**TABLE 3:** Study 1: Predicted Level of Commitment by Level of Satisfaction, Alternatives, and Investments

Levels of Predictors			Commitment to the War on Terror
Satisfaction	Alternatives	Investments	<i>M</i>
High	Low	High	7.79
High	High	High	7.64
High	Low	Low	7.10
High	High	Low	6.96
Low	Low	High	5.62
Low	High	High	5.47
Low	Low	Low	4.93
Low	High	Low	4.79

NOTE: Low refers to 1 SD below the mean for the respective predictor; High refers to 1 SD above the mean for the respective predictor. Commitment is the predicted commitment level based on a model with all three predictors and all seven control variables. *N* = 110.

the control variables (Cohen & Cohen, 1983), namely, at 1 SD below the mean of a given predictor versus 1 SD above the mean.<sup>2</sup> Table 3 presents the predicted values based on the observed intercept and unstandardized regression coefficients reported in Model 2 of Table 2, along with the means and standard deviations reported in Table 1. As can be seen, the highest commitment to the war on terror occurs for the theoretically defined optimal condition (high satisfaction, low alternatives, high investments) and lowest for the least optimal condition (low satisfaction, high alternatives, and low investments).

Overall, results were consistent with hypotheses with one exception: In multiple regression analyses, quality of alternatives did not contribute above and beyond the other two constructs in accounting for variation in commitment level. The measure of alternatives did not achieve a particularly high level of reliability ( $\alpha = .60$ ), which may

have limited its ability as a predictor variable. The low reliability may reflect the multidimensional nature of the alternatives construct. There are multiple alternatives in this domain, not all of which may be viewed as equally compelling. That said, the partial correlation between alternatives and commitment, although statistically significant, was not particularly strong ( $r = -.21$ ), especially as compared with the strengths of associations obtained for satisfaction level ( $r = .62$ ) and investment size ( $r = .42$ ). In interpersonal contexts, satisfaction has been found to account for the lion's share of variance in commitment (Le & Agnew, 2003), with investments and alternatives generally accounting for less and approximately the same shares of remaining variation in commitment, respectively. It remains to be seen whether the relative weakness of perceived alternatives as a predictor of commitment level is a measurement artifact or a reliable gauge of the variable's connection with commitment in this international context. Assuming it is a reasonable gauge of the general role of perceived alternatives in understanding commitment toward the war on terror, future research might elucidate various specific alternatives to the war and assess the extent to which the possibility of pursuing each alternative affects level of commitment differentially.

Although the results from this initial study were encouraging, the correlational design has limitations. It precludes making causal claims regarding the relations among study variables. The investment model holds that satisfaction level, investment size, and quality of alternatives influence level of commitment, but the presence or direction of effects cannot be determined conclusively from these data. Thus, we designed a second study to test for evidence of a direct causal connection between the specified investment model constructs and commitment to the war on terror.

## STUDY 2

Study 2 was an experiment designed to determine whether the factors specified within the investment model could be manipulated to yield differential levels of commitment, as implied by the model. If the investment model does indeed provide a causal framework for understanding commitment to the war on terror, manipulating its factors should produce differential commitment. Participants were provided with either commitment-promoting or commitment-preventing information, which was crafted to reflect the three factors delineated within the investment model. Study 2 followed a 2 (satisfaction: high vs. low)  $\times$  2 (alternatives: high vs. low)  $\times$  2 (investments: high vs. low) between-subjects factorial design. We were particularly interested in providing additional evidence regarding commitment level for the conditions in which the investment model implies the highest and the lowest levels of commitment. We anticipated that participants would be most committed to the war when satisfaction and investments were described as high and alternatives were described as low (the optimal commitment-promoting condition) and the least committed to the war when satisfaction and investments were described as low and alternatives were described as high (the optimal commitment-preventing condition), with the six conditions combining commitment-promoting and commitment-preventing factors falling in between these two extremes.

### Method

#### Participants

The sample consisted of 175 Purdue University undergraduates (126 males, 49 females). The sample was predominately Caucasian (88%), with some participants indicating they were Asian American (5%), African American (4%), Hispanic American (2%), or Other (1%). The mean age was 19.60 ( $SD = 1.13$ ; range = 18 to 23). A majority of participants (95%) indicated they were U.S. citizens. Eighty-one percent of participants were registered voters; 55% voted in the 2004 presidential election. All participants received credit in partial fulfillment of a requirement for a general psychology course.

#### Materials

*Investment model manipulation.* For the manipulation of the investment model variables, we crossed the three bases of commitment (satisfaction, alternatives, and investments) with two levels of strength (high and low), yielding eight possible combinations. Each combination consisted of a statement indicating high or low satisfaction (“The

United States is extremely pleased with the waging of its ‘war on terror’ because it has destroyed many more terrorist cells than the United States expected based on previous counter-terrorism efforts” vs. “The United States is extremely displeased with the waging of its ‘war on terror’ because it has not destroyed many more terrorist cells than the United States expected based on previous counter-terrorism efforts”), a statement indicating high or low alternatives (“The United States can replace its ‘war on terror’ with non-military counter-terrorism efforts and criminal justice responses because of the ‘war on terror’s’ unique ability to fuel the terrorist networks that threaten U.S. security” vs. “The United States cannot replace its ‘war on terror’ with non-military counter-terrorism efforts or criminal justice responses because of the ‘war on terror’s’ unique ability to defeat the terrorist networks that threaten U.S. security”), and a statement indicating high or low investments (“The United States is staking its valuable reputation on the ‘war on terror’ by vigorously supporting it with critical resources, personnel, and attention from the highest levels of government” vs. “The United States is not staking its valuable reputation on the ‘war on terror’ by vigorously supporting it with critical resources, personnel, and attention from the highest levels of government”). Thus, each experimental condition consisted of a total of three statements, with each of the investment model variables represented once (either high or low in strength). For each participant, the three statements were presented in a random order.

*Manipulation checks.* Participants were presented with three items to assess the degree to which the statements were successful in manipulating each of the three investment model antecedents of commitment. Of these items, one assessed satisfaction, one assessed alternatives, and one assessed investments. For satisfaction, the item was “Based upon the previous statements, the United States is satisfied with waging the ‘war on terror.’” For investments, the item was “Based upon the previous statements, the United States has put a great deal into waging the ‘war on terror’ that the United States would lose if the ‘war’ was discontinued.” For alternatives, the item was “Based upon the previous statements, the United States’ alternatives to waging the ‘war on terror’ are close to ideal (e.g., non-military counter-terrorism efforts or criminal justice responses).” For each participant, these items were presented in a random order. These items were rated on a 9-point scale ranging from 1 (*do not agree at all*) to 9 (*agree completely*).

*Commitment to the war on terror.* Participants were instructed to indicate their own level of commitment to the war on terror. Commitment to the war on terror

was assessed with four items ( $\alpha = .92$ ): “I want the ‘war on terror’ to last as long as necessary,” “I am prepared for the ‘war on terror’ to be waged over a long period of time,” “I am committed to continuing the ‘war on terror’ as long as necessary,” and “I feel very attached to the ‘war on terror’—very strongly linked to its success.” Each of these items was modeled after items contained in the commitment subscale of the Investment Model Scale (Rusbult et al., 1998). The items were rated on a 9-point scale ranging from 1 (*do not agree at all*) to 9 (*agree completely*).

*Other measures.* As in Study 1, the Conservatism–Liberalism Scale (Mehrabian, 1996;  $\alpha = .82$ ) was again administered to assess participants’ political orientations ( $M = 5.50$ ,  $SD = 1.65$ ). Additionally, participants completed the same knowledge ( $M = 4.10$ ,  $SD = 0.88$ ), demographic, and control measures detailed in Study 1. These measures were coded in the same manner as described in the previous study.

### Procedure

Participants were recruited for participation in a study of “perceptions of various international issues.” After obtaining informed consent, we randomly assigned participants to one of the eight possible experimental conditions. All information was presented to participants via a computer program (MediaLab). Participants were provided with the following instructions:

Imagine that a United States Senator from your state is interested in your opinion regarding a number of international issues facing the U.S. Your Senator has provided you with three pieces of information concerning each issue. Please read the information and, based upon it, answer the questions that follow.

Next, we presented the manipulations. Immediately afterward, participants were presented with the following instruction preceding a 9-point response scale: “Using the scale below as a guide, please select a number for each statement to indicate how much you agree with it.” Participants were then presented with the manipulation check questions and the items assessing their own commitment level. After completing all questions, participants were fully debriefed and thanked for taking part in the study.

## Results and Discussion

### Manipulation Checks

To ensure the specificity of our experimental manipulations, we analyzed whether the manipulation of a

given factor (e.g., satisfaction) resulted in systematic increases in that factor and not in levels of another factor (e.g., investments). To do so, we performed a 2 (satisfaction manipulation)  $\times$  2 (alternatives manipulation)  $\times$  2 (investment manipulation) MANOVA with the three separate manipulation check questions as dependent variables. For the satisfaction manipulation check question, the only significant main effect was for the satisfaction manipulation,  $F(7, 167) = 81.51$ ,  $p < .001$ . Participants in the four high-satisfaction conditions reported higher satisfaction with the war on terror ( $M = 6.31$ ) than participants in the four low-satisfaction conditions ( $M = 3.87$ ). Similarly, for the alternatives manipulation check question, the only significant main effect was for the alternatives manipulation,  $F(7, 167) = 75.89$ ,  $p < .001$ . Participants in the four high-alternatives conditions reported better alternatives to the war ( $M = 5.39$ ) than participants in the four low-alternatives conditions ( $M = 3.18$ ). Finally, for the investment manipulation check question, the only significant main effect was for the investment manipulation,  $F(7, 167) = 18.26$ ,  $p < .001$ . Participants in the four high-investment conditions reported higher investment in the war ( $M = 6.36$ ) than participants in the four low-investment conditions ( $M = 5.12$ ). There were no significant interactive effects for any of the three manipulation check questions. These findings suggest that the three bases of commitment, as postulated in the investment model, were successfully and uniquely manipulated.

### Comparing Commitment-Promoting Versus Commitment-Preventing Conditions

ANCOVA was used to examine the effects of satisfaction, alternatives, and investments on commitment while controlling for the effects of several important variables. More specifically, we controlled for the following seven variables: sex, race, citizenship, voting registration status, participation in the 2004 presidential election, knowledge about the war on terror, and political conservatism. Even in a model containing these potent control variables, contrast analysis confirmed that significantly higher commitment was reported in the high satisfaction/high investment/low alternatives condition versus the low satisfaction/low investment/high alternatives condition,  $F(1, 174) = 4.42$ ,  $p < .05$  (see Table 4 for means by experimental condition). Thus, there was a significant difference in levels of commitment to the war on terror between the optimal commitment-promoting condition and the optimal commitment-preventing condition.

This significant difference was not supported by the existence of three separate main effects. Instead, there was a significant three-way interaction among the three investment model variables,  $F(1, 174) = 4.64$ ,  $p < .05$ .

**TABLE 4:** Study 2: Commitment Mean Level and Standard Deviation by Experimental Condition

Experimental Condition			Commitment to the War on Terror	
Satisfaction	Alternatives	Investments	<i>M</i>	<i>(SD)</i>
High	Low	High	5.34	(0.49)
High	High	High	4.31	(0.51)
High	Low	Low	3.85	(0.51)
High	High	Low	4.22	(0.47)
Low	Low	High	4.01	(0.53)
Low	High	High	4.70	(0.40)
Low	Low	Low	4.41	(0.51)
Low	High	Low	3.51	(0.49)

NOTE: *N* = 175.

As can be seen in Table 4, the six combinations of the three predictor variables between the two optimal levels had observed levels of commitment that fell in between the most commitment-promoting and the most commitment-preventing conditions. In ANCOVA models including all covariates, the conditions combining commitment-promoting and commitment-preventing factors were not consistently significantly different from the two optimal conditions. Although the level of commitment in the optimal commitment-promoting condition was significantly higher than in the six conditions combining commitment-promoting and commitment-preventing factors,  $F(1, 174) = 4.79$ ,  $p < .05$ , the level of commitment in the optimal commitment-preventing condition was not significantly lower than in those six conditions,  $F(1, 174) = .87$ ,  $p < .36$ . In other words, the combination of three commitment-promoting factors exerted a significantly greater effect than the existence of two or one commitment-promoting factors. Thus, although the net sum of the effects across variables was the same as in Study 1, the experimental design generated it in a different way through the interaction of the three factors. We consider these findings further in the next section.

## GENERAL DISCUSSION

Why are some people committed to the war on terror? We approached this question from a social psychological perspective, turning to a well-known and empirically supported model of interpersonal commitment, the investment model (Rusbult, 1980; Rusbult et al., 1998). According to this model, feelings of commitment are fueled by three independent factors: satisfaction level, investment size, and quality of alternatives. We conducted two studies to assess the applicability of the investment

model in understanding commitment to the war on terror waged by the United States.

Consistent with predictions, in Study 1 the investment model constructs were all found to be significantly associated with commitment to the war on terror. More specifically, satisfaction with, alternatives to, and investments in the war on terror were all found to independently predict levels of commitment. These significant associations were found even after partialing out the effects of several important control variables, including political conservatism and general knowledge about the war on terror.

In Study 2, we experimentally manipulated the hypothesized antecedents of commitment to the war on terror. Experimental studies of the investment model are rare, and the current study is the first to simultaneously manipulate all three investment model constructs in an attempt to influence the level of commitment. In line with predictions, we found that participants were most committed to the war when satisfaction and investments were described as high and alternatives were described as low. In contrast, participants were least committed to the war when satisfaction and investments were described as low and alternatives were described as high. As in Study 1, these effects were evident even when several important covariates were included in the model. Moreover, the relatively weak effects for alternatives in Study 1 were not evident in the results of Study 2.

Several differences between the results of Study 1 and Study 2 are worth noting. In Study 1, the difference between the two extreme conditions—one optimally promoting commitment (high satisfaction, low alternatives, high investments) and one optimally preventing commitment (low satisfaction, high alternatives, low investments)—was carried by three parallel main effects. In Study 2, it was carried by a significant interaction. This difference was mainly driven by the mixed conditions between the two extremes. In Study 1, the differences followed an additive pattern in which having two commitment-promoting conditions was associated with higher commitment than having only one commitment-promoting condition; in Study 2, these mixed conditions tended to cluster together and were not consistently significantly different from each other.

Such a difference has not been demonstrated previously, as no previous research has attempted to manipulate the investment model variables simultaneously. One possibility for the difference is that perhaps our three-sentence manipulation simply was not nuanced enough to allow people to distinguish clearly among the mixed information conditions. However, the findings from the

manipulation checks argue against this possibility. Another possibility is that participants in Study 2 were provided with somewhat contradictory (vs. consistent) information within a given condition; the extreme conditions provided information consistently, promoting or preventing commitment, whereas the mixed conditions provided inconsistent information. The mixed information may have induced a state of ambivalent commitment, thus preventing the emergence of main effects. It is interesting to note that contradictory information may undermine a “pro” versus “anti” commitment message. Although this is speculative, what remains clear is the significant difference between the extreme conditions. Overall, the two studies provide evidence for significant links between the investment model variables and the commitment to the war on terror and, more generally, for the model’s applicability in the international realm.

Beyond demonstrating predictive value above and beyond variables traditionally considered by political scientists, it is important to consider the theoretical extension afforded by considering an investment model analysis in this domain. The investment model approach to understanding individuals’ commitment to an international policy such as the war on terror differs markedly from both past political science efforts and general attitude approaches offered by social psychologists (Fishbein & Ajzen, 1975; Krosnick & Petty, 1995; Wittkopf, 1990). Despite the fact that many (if not most) political issues involve commitments over a substantial period, past public opinion research has tended to conceptualize key dependent variables such as support for military action as static, cross-sectional attitudes. Yet commitment is clearly conceptually distinct from attitude and is relevant to many policy issues. For example, one can imagine a person who possesses a relatively positive overall attitude toward the war on terror but who is not committed to long-term military intervention.

In some respects, commitment may be construed as analogous to attitude strength (Krosnick, Boninger, Chuang, Berent, & Carnot, 1993; Krosnick & Petty, 1995). Parallels between commitment and one dimension of attitude strength in particular, attitude importance, can and have been drawn. Boninger, Krosnick, and Berent (1995), in fact, have described attitude importance as conceptually similar to relationship commitment, stating that “attaching personal importance to an attitude represents a substantial commitment (Abelson, 1988), not unlike a long-term commitment to an interpersonal relationship with another person” (p. 62). Past research has examined different predictors of attitude importance, including self-interest, social identification, and value relevance (Boninger et al., 1995). Given the lack of fundamental overlap between these predictor constructs and those contained in the investment model, it would be

instructive for future research to examine such constructs as additional predictors of commitment in the international (as well as the interpersonal) realm, alongside the investment model variables.

Moreover, within the attitude literature, normative and behavioral beliefs have been shown repeatedly to underlie the formation of behavioral intentions, a proximal cognitive determinant of action (Ajzen & Fishbein, 1980; Sheppard, Hartwick, & Warshaw, 1988). Whereas various types of beliefs have been demonstrated to be associated with behavior, the investment model contains beliefs that are distinct from those considered by extant belief-based models. In particular, the specified bases of commitment included in the investment model introduce the novel concept of investments into the international policy domain, specifically, and the attitude domain, generally. Consistent with general psychological findings concerning loss aversion (e.g., Kahneman & Tversky, 1979), individuals would rather remain in a given situation than face the loss of accrued resources. Although the power of investments to compel continuation of a line of action has been demonstrated repeatedly in the interpersonal domain (e.g., see Rusbult & Martz, 1995, on the power of investments to keep women in abusive relationships), it has not previously been demonstrated in the international domain.

Finally, commitment has been conceptualized, at least in part, as a behavioral intention (Arriaga & Agnew, 2001; Rusbult & Bunnk, 1993). As such, it should not be surprising that commitment has been found to be a powerful predictor of behavior, just as are behavioral intentions (Le & Agnew, 2003; Sheppard et al., 1988). However, past research has demonstrated empirically that the effect of relationship commitment on behavior (e.g., on subsequent relationship dissolution) is not wholly driven by the intentional component of relationship commitment (Arriaga & Agnew, 2001). Nevertheless, it remains important for future research to demonstrate empirically the added value of the investment model approach in models that include measures tapping traditional attitudinal constructs.

Overall, the present findings add to our understanding of factors that contribute to commitment toward a given policy, the war on terror. The model might also be fruitfully applied to understanding other international targets of commitment. For example, commitment toward international alliances such as the North Atlantic Treaty Organization (NATO), international trade agreements such as the North American Free Trade Agreement (NAFTA), and organizations such as the United Nations might all be examined within the context of the model.

The investment model helps explain what political scientists call “audience costs,” the propensity for citizens to punish leaders who fail to keep national promises

(Fearon, 1994). An emerging body of research shows that leaders pay a price at home for backing away from commitments made by their governments (e.g., Bueno de Mesquita, Smith, Siverson, & Morrow, 2003). However, it is unclear why citizens want their leaders to be promise keepers given that breaking agreements often brings short-term rewards. The answer provided by the investment model is that the process of establishing international commitments often generates a commitment process at the domestic level among ordinary citizens. This is an important point for leaders to recognize, as it suggests that actions taken in the international realm have the potential to constrain the conduct of future policy whether leaders intend to tie their own hands or not.

We see the current results as a step toward understanding antecedents of commitment toward an international policy using concepts traditionally offered to understand interpersonal relations. It would be useful and important to obtain evidence from a general U.S. population sample to replicate the effects reported here. At the same time, the present results provide initial evidence regarding the process underlying commitment to policy. Moreover, the results support the feasibility of broadening the targets of commitment traditionally considered within the context of the investment model and suggest the importance of applying relational models to understanding broader social concerns.

## NOTES

1. We also computed a model to determine the amount of variance accounted for by the three investment model variables in predicting commitment level without including the control variables. The three variables account for nearly two thirds of the variance in commitment level ( $R^2 = .62$ , with alternatives again yielding a nonsignificant beta). This proportion of variance is consistent with that found in previous investment model studies (see Le & Agnew, 2003, for meta-analytic findings).

2. We used the following equation to obtain predicted values of commitment, where the regression coefficients were those observed in Model 2 of Table 2 and the values for satisfaction, alternatives, and investments were set to 1 SD above or below the mean (see means and standard deviations reported in Table 1):

$$\text{Commitment} = 2.53 + .54 (\text{Satisfaction}) - .05 (\text{Alternatives}) + .26 (\text{Investments})$$

For example, to report the level of commitment for high satisfaction, low alternatives, and high investments, we substituted 6.68 for satisfaction, 3.29 for alternatives, and 6.98 for investments.

## REFERENCES

- Abelson, R. P. (1988). Conviction. *American Psychologist*, 43, 267-275.
- Adams, J. M., & Jones, W. H. (1997). The conceptualization of marital commitment: An integrative analysis. *Journal of Personality and Social Psychology*, 72, 1177-1196.
- Agnew, C. R., Van Lange, P. A. M., Rusbult, C. E., & Langston, C. A. (1998). Cognitive interdependence: Commitment and the mental representation of close relationships. *Journal of Personality and Social Psychology*, 74, 939-954.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Upper Saddle River, NJ: Prentice Hall.
- 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.
- Boninger, D. S., Krosnick, J. A., & Berent, M. K. (1995). Origins of attitude importance: Self-interest, social identification, and value relevance. *Journal of Personality and Social Psychology*, 68, 61-80.
- Bueno de Mesquita, B., Smith, A., Siverson, R. M., & Morrow, J. D. (2003). *The logic of political survival*. Cambridge, MA: MIT Press.
- Carpenter, P. J., & Coleman, R. (1998). A longitudinal test of elite youth cricketers' commitment. *International Journal of Sport Psychology*, 29, 195-210.
- Carpenter, P. J., & Scanlan, T. K. (1998). Changes over time in determinants of sport commitment. *Pediatric Exercise Science*, 10, 356-365.
- Choice, P., & Lamke, L. (1999). Stay/leave decision-making in abusive dating relationships. *Personal Relationships*, 6, 351-368.
- Cohen, J., & Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Davis, L., & Strube, M. J. (1993). An assessment of romantic commitment among Black and White dating couples. *Journal of Applied Social Psychology*, 23, 212-225.
- Duffy, S. M., & Rusbult, C. E. (1986). Satisfaction and commitment in homosexual and heterosexual relationships. *Journal of Homosexuality*, 12, 1-23.
- Farrell, D., & Rusbult, C. E. (1981). Exchange variables as predictors of job satisfaction, job commitment, and turnover: The impact of rewards, costs, alternatives, and investments. *Organizational Behavior and Human Performance*, 28, 78-95.
- Fearon, J. D. (1994). Domestic political audiences and the escalation of international disputes. *American Political Science Review*, 90, 715-735.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Geyer, P. D., Brannon, Y. S., & Shearon, R. W. (1987). The prediction of students' satisfaction with community college vocational training. *Journal of Psychology*, 121, 591-597.
- Goodfriend, W., & Agnew, C. R. (2002, February). *Tangible and intangible investments: A longitudinal study of their association with relationship longevity*. Poster session presented at the annual meeting of the Society of Personality and Social Psychology, Savannah, GA.
- Grote, N. K., Frieze, I. H., & Schmidt, L. C. (1997). Political attitudes and the Vietnam war: A study of college-educated men of the Vietnam generation. *Journal of Applied Social Psychology*, 27, 1673-1693.
- Hurwitz, J., & Peffley, M. (1987). How are foreign policy attitudes structured? A hierarchical model. *American Political Science Review*, 81, 1099-1120.
- Johnson, M. P. (1991). Commitment to personal relationships. *Advances in Personal Relationships*, 3, 117-143.
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47, 263-291.
- Kelley, H. H., & Thibaut, J. W. (1978). *Interpersonal relations: A theory of interdependence*. New York: John Wiley.
- Kelman, H. C. (1965). *International behavior: A social-psychological analysis*. New York: Holt, Rinehart & Winston.
- Koslowsky, M., & Kluger, A. (1986). Commitment to participation in musical activities: An extension and application of the investment model. *Journal of Applied Social Psychology*, 16, 831-844.
- 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.
- Krosnick, J. A., & Petty, R. E. (1995). Attitude strength: An overview. In R. E. Petty & J. A. Krosnick (Eds.), *Attitude strength: Antecedents and consequences* (pp. 1-24). Mahwah, NJ: Lawrence Erlbaum.

- Kurdek, L. A. (1991). Correlates of relationship satisfaction in cohabiting gay and lesbian couples: Integration of contextual, investment, and problem-solving models. *Journal of Personality and Social Psychology, 61*, 910-922.
- Kurdek, L. A. (1995). Assessing multiple determinants of relationship commitment in cohabiting gay, cohabiting lesbian, dating heterosexual, and married heterosexual couples. *Family Relations, 44*, 261-266.
- Le, B., & Agnew, C. R. (2003). Commitment and its theorized determinants: A meta-analysis of the investment model. *Personal Relationships, 10*, 37-57.
- Lehmiller, J. J., & Agnew, C. R. (2006). Marginalized relationships: The impact of social disapproval on romantic relationship commitment. *Personality and Social Psychology Bulletin, 32*, 40-51.
- Lehmiller, J. J., & Agnew, C. R. (in press). Perceived marginalization and the prediction of romantic relationship stability. *Journal of Marriage and Family*.
- 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.
- Lin, Y. W., & Rusbult, C. E. (1995). Commitment to dating relationships and cross-sex friendships in America and China. *Journal of Social and Personal Relationships, 12*, 7-26.
- Loehlin, J. C. (1992). *Latent variable models: An introduction to factor, path, and structural equations* (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum.
- Lyons, W. E., & Lowery, D. (1989). Citizen responses to dissatisfaction in urban communities: A partial test of a general model. *Journal of Politics, 51*, 841-868.
- MacCallum, R. C., Wegener, D. T., Uchino, B. N., & Fabrigar, L. R. (1993). The problem of equivalent models in applications of covariance structure models. *Psychological Bulletin, 114*, 185-199.
- Mehrabian, A. (1996). Relations among political attitudes, personality, and psychopathology assessed with new measures of libertarianism and conservatism. *Basic and Applied Social Psychology, 18*, 469-491.
- Oliver, N. (1990). Rewards, investments, alternatives and organizational commitment: Empirical evidence theoretical development. *Journal of Occupational Psychology, 63*, 19-31.
- Ping, R. A., Jr. (1993). The effects of satisfaction and structural constraints on retailer exiting, voice, loyalty, opportunism, and neglect. *Journal of Retailing, 69*, 320-352.
- Ping, R. A., Jr. (1997). Voice in business-to-business relationships: Cost-of-exit and demographic antecedents. *Journal of Retailing, 73*, 261-281.
- Putnam, D. E., Finney, J. W., Barkley, P. L., & Bonner, M. J. (1994). Enhancing commitment improves adherence to a medical regimen. *Journal of Consulting and Clinical Psychology, 62*, 191-194.
- Raedeke, T. D. (1997). Is athlete burnout more than just stress? A sport commitment perspective. *Journal of Sport and Exercise Psychology, 19*, 396-417.
- Rusbult, C. E. (1980). Commitment and satisfaction in romantic associations: A test of the investment model. *Journal of Experimental Social Psychology, 16*, 172-186.
- Rusbult, C. E., Arriaga, X. B., & Agnew, C. R. (2001). Interdependence in close relationships. In M. Clark & G. Fletcher (Eds.), *The Blackwell handbook of social psychology: Vol. 2. Interpersonal processes* (pp. 359-387). Oxford, UK: Basil Blackwell.
- 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. (1995). Remaining in an abusive relationship: An investment model analysis of nonvoluntary dependence. *Personality and Social Psychology Bulletin, 21*, 558-571.
- Rusbult, C. E., Martz, J. M., & Agnew, C. A. (1998). The investment model scale: Measuring commitment level, satisfaction level, quality of alternatives, and investment size. *Personal Relationships, 5*, 357-391.
- Schmidt, G. W., & Stein, G. L. (1991). Sport commitment: A model integrating enjoyment, dropout, and burnout. *Journal of Sport and Exercise Psychology, 13*, 254-265.
- Sheppard, B. H., Hartwick, J., & Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modification and future research. *Journal of Consumer Research, 15*, 325-343.
- Thibaut, J. W., & Kelley, H. H. (1959). *The social psychology of groups*. New York: John Wiley.
- Wittkopf, E. R. (1990). *Faces of internationalism: Public opinion and American foreign policy*. Durham, NC: Duke University Press.
- Zaller, J. (1994). Strategic politicians, public opinion, and the Gulf crisis. In W. L. Bennett & D. L. Paletz (Eds.), *Taken by storm: The media, public opinion, and U.S. foreign policy in the Gulf war* (pp. 250-276). Chicago: University of Chicago Press.

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