

This article was downloaded by: [Hoffman, Aaron M.]

On: 24 November 2009

Access details: Access Details: [subscription number 917057650]

Publisher Routledge

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## International Interactions

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713718605>

## Satisfaction, Alternatives, Investments, and the Microfoundations of Audience Cost Models

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Online publication date: 20 November 2009

**To cite this Article** Hoffman, Aaron M., Agnew, Christopher R., Lehmler, Justin J. and Duncan, Natasha T.(2009) 'Satisfaction, Alternatives, Investments, and the Microfoundations of Audience Cost Models', *International Interactions*, 35: 4, 365 — 389

**To link to this Article:** DOI: 10.1080/03050620903328274

**URL:** <http://dx.doi.org/10.1080/03050620903328274>

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## **Satisfaction, Alternatives, Investments, and the Microfoundations of Audience Cost Models**

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*In this paper, we suggest that the Investment Model of Commitment, developed in social psychology, offers a solution to an important microfoundational issue in audience cost theory. Audience cost models are useful for thinking about the foreign policy behaviors of democratic and nondemocratic states. However, they often assume that citizens reliably penalize leaders who break their foreign policy promises even though the empirical record suggests this is not always the case. We argue that public commitment to foreign policy assets and relationships is a precondition for the application of audience costs. Using the UN and NATO as case studies, we hypothesize that the commitments people develop to international organizations emerge as a function of (1) their satisfaction with the performance of the organization, (2) the investments in those organizations, and (3) an assessment of the alternatives to these associations. Correlational and experimental tests of the model confirm that the strongest individual-level commitments arise when people are highly satisfied with the performance of specific institutions, believe that much has been invested in support of them, and perceive that the alternatives*

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*to particular institutions are poor. Implications for the development of audience cost theory are discussed.*

**KEYWORDS** *audience costs, commitment, international organization, investment model*

A growing literature suggests that foreign policy promises are more likely to be honored when they are issued publicly (Fearon 1994; Mansfield, Milner, and Rosendorff 2002; Schultz 2001a; Lohmann 2003; Smith 1998; Tomz 2007). Leaders who make public promises permit voters to observe their behavior and to hold them accountable for poor performance. Thus, leaders who issue promises openly must take care to make good on their pledges since failure to do so may expose them to penalties (“audience costs”) that jeopardize their political careers.

Audience cost models are appealing because they help predict differences in the observed foreign policy behaviors of democratic and nondemocratic states across a wide range of issues. For instance, audience cost arguments help explain the inclination of democratic governments to delegate control over monetary policy to independent central banks (Broz 2002). Similarly, audience costs help us understand why democratic states tend to be more reliable allies than nondemocratic ones (Leeds 2003). While audience cost arguments appear to give us improved explanatory leverage in these and other cases, both critics and supporters note that the microfoundations of audience cost models are weak (Clare 2007; Schultz 2001a; Smith 1998; Slantchev 2006). Audience cost models assume that voters penalize leaders who renege on their public promises, but the empirical record suggests that domestic audiences can be forgiving (Clare 2007; Schultz 2001a). As a result, audience cost models overstate the public’s willingness to punish leaders who violate their promises. This is a problem because the certainty of punishment is the mechanism leaders use to establish the credibility of their claims; without it, pledges are dismissed as “cheap talk,” making cooperation difficult.

What audience cost models require is a theory that explains the public’s varying taste for penalizing leaders who renege on foreign policy promises. Recent advances in audience cost theory suggest that the public’s willingness to impose penalties depends on the “salience” of the assets at stake (Clare 2007). Yet, beyond this, audience cost models say little about the factors that convince voters that certain foreign policy assets and relationships are worth keeping. This is the aspect of audience cost theory our work addresses. Building on the Investment Model of Individual Commitment, developed by social psychologists (see Rusbult 1980; Rusbult, Martz, and Agnew 1998), we argue that people develop commitments to foreign policy assets and relationships as a function of their: 1) satisfaction with the performance of the assets or relationships in question; 2) sense of the magnitude of investments

made in support of those assets or relationships; and 3) beliefs about the availability of alternatives to these goods.

Although social psychological models are often seen as challenging rational choice approaches (see McDermott 2002), there is no conflict between the two in this case. Whereas some psychological research suggests that people respond differently to the same situations, work on the Investment Model suggests that the underlying dynamics of commitment are consistent across subjects (Le and Agnew 2003). The strongest commitments arise when individuals are satisfied with the performance of specific associations, believe much has been invested in support of those relationships, and perceive that alternatives to an existing asset or relationship are poor. The weakest commitments emerge when satisfaction is low, investments are thought to be small, and alternatives are enticing. By implication, we do not expect the public to penalize leaders when their commitment to an asset or relationship is weak. Only when public satisfaction with foreign policy assets is high, investments in these assets and relationships are thought to be great, and alternatives are considered poor do leaders risk disciplinary action by the public in the event they renege.

We examined the internal validity of these claims using laboratory methods that probed our respondents' attachments to the U.S.'s relationship with the UN and NATO. Audience cost models are prominent in discussions of the credibility of promises made to international organizations, making these associations a useful testing ground for our approach. The results support our model of citizen support for U.S. involvement in the UN and NATO. We conclude that modeling satisfaction with, alternatives to, and investment in international organizations is a viable way to strengthen the microfoundations of existing audience cost approaches.

## AUDIENCE COSTS, COMMITMENTS, AND INTERNATIONAL ORGANIZATIONS

Interest in audience cost models arises from a basic problem that leaders face during the conduct of foreign affairs: convincing others to accept promises as honest reflections of their intentions. Talk is "cheap" in international politics. In well-functioning domestic systems, governments make sure promises are honored, but the international system lacks an analogous third party to ensure that leaders are true to their words. This state of affairs creates a climate of suspicion that interferes with genuine efforts at cooperation. Since promises may be broken, leaders are inclined to doubt the veracity of verbal offers their counterparts make to them—even when those promises are sincere (Keohane 1984). The trouble, then, for leaders interested in delivering on their promises is finding ways to distinguish their truthful utterances from disingenuous ones issued by others (Fearon 1994; Kydd 2006).

Theoretically, solutions to the problem of suspicion are tied to the ability of leaders to make sacrifices that send unmistakable signals to others about their intentions. These “costly signals” work by raising the penalties associated with renegeing. Using a variety of methods (see Fearon 1997), leaders back their words with deeds designed to provide others tangible evidence of their determination to behave as advertised.

Audience cost models are part of the costly signals tradition. Facing suspicion, leaders of stable democratic countries can establish the truthfulness of their intentions by placing their own political careers at risk. Leaders do this by issuing public statements about their foreign policy intentions. The resulting transparency enables citizens (“domestic audiences”) to observe their leaders’ performance in foreign policy. The public is interested in retaining skillful leaders and uses its window into the foreign policy process to look for signs of ineptitude. Renegeing is an indicator of low skill the public watches for and retains an interest in penalizing (Smith 1998). For this reason, audience cost models suggest that leaders who back away from their stated positions can expect voters to remove them from office in favor of more skilled politicians.

Knowing that they face electoral penalties for renegeing, farsighted leaders can use the prospect of punishment to establish the sincerity of their intentions since failing to follow through with pledges forces politicians to give up that which they value—their own careers. This is the basis for the claim that promises made in front of domestic audiences are more reliable than those made behind closed doors. Yet, for this logic to hold in all situations, voters must reliably penalize leaders who break their foreign policy promises because it is the sureness of punishment that makes issuing public proclamations costly. Otherwise, audience costs cannot be counted upon consistently to make public promises credible.

Empirically, it appears that voters do not invariably punish leaders who renege on foreign policy promises. Sometimes leaders are punished and other times they are let “off the hook.” Work by Partell and Palmer (1999), Schultz (2001a), and Tomz (2007), for instance, shows citizens indeed hold leaders who renege during interstate crises accountable as audience cost models predict. However, other research suggests these costs are imposed inconsistently in the aftermath of interstate confrontations (Chiozza and Goe-mans 2004; Schultz 2001b). This discrepancy between theory and evidence is also apparent in work on the credibility of monetary commitment mechanisms (Broz 2002) and trade liberalization agreements (Mansfield et al. 2002). Broz (2002, 867), for example, assumes that domestic groups stand ready to punish democratic governments that violate promises to respect the independence of central banks, but it is unclear that the public actually does so when leaders politicize these institutions (Freeman 2002).

As Clare (2007) argues, it is more reasonable to assume that the certainty of audience-imposed costs on leaders varies with public prefer-

ences over the assets, relationships, and policies in question. Instead of equating all renegeing with incompetence, Clare argues only those broken promises that significantly harm the public's interests are problematic. Punitive action against leaders is unwarranted unless breaking their promises puts select, valuable assets at risk. If leaders break promises in ways that promote the public's interests, leaders will be supported rather than sanctioned.

In addition to explaining variation in the application of audience costs, focusing on the "salience" (Clare 2007, 735) of goods provides insight into the reasons voters might punish leaders who break foreign policy promises made by predecessors. In the typical audience cost scenario, leaders are accountable for their own promises (e.g., Smith 1998). This makes sense in some cases, but when ties to international organizations are at issue, citizens may be positioned to defend pledges made by previous administrations. Under these circumstances, citizens may conclude that renegeing does not signal incompetence. Instead, the decision to change policy might reflect the recognition that the benefits of membership no longer exceed the costs.

Even though Clare's work clarifies some important issues, the factors that determine the public's valuation of existing foreign policy assets remain unclear in the audience costs literature. What, for example, explains voters' desire to maintain their country's membership in particular international organizations and when are we to expect voters to decide that resigning the state's membership in an international organization is acceptable? Below, we discuss our answer to this question, drawing on the Investment Model of Individual Commitment. The Investment Model is helpful because it is designed to explain the mechanisms that generate individual commitments to particular assets, relationships and/or courses of action. The factors that engender commitments are general ones. Not surprisingly, tests of the Investment Model suggest it can explain varying levels of attachment to a wide range of targets of commitment.

In recommending the Investment Model, we recognize that it is not a panacea for audience cost theory. The Investment Model solves a theoretical issue common to audience cost approaches, but it creates new problems that must be addressed in the future. How, for example, do leaders who receive public promises judge the credibility of those pledges given variation in the willingness of domestic audiences to penalize renegeing? In the usual audience cost set-up, foreign leaders assume that any public promise is insured by the promisor's constituents, but this assumption is unsustainable in light of our argument. Therefore, a puzzle that will remain after we discuss the Investment Model is how foreign leaders figure out whether the citizens of other states are committed to the foreign policy goods at stake. This question is beyond the scope of our current work, but it is one that must be answered as audience cost models develop.

## THE INVESTMENT MODEL OF POLITICAL COMMITMENT

We conceptualize people's regard for foreign policy assets, relationships, and/or strategies as their commitment to these goods. Commitments are psychological in nature. They refer to the subjective sense people derive from their involvement in various associations and arrangements (Agnew, Van Lange, Rusbult, and Langston 1998; Rusbult, Martz, and Agnew 1998). Commitments are associated with the intention to maintain relationships and/or pursue goals over the long term (Arriaga and Agnew 2001; Rusbult and Buunk 1993).

Commitments are the product of the outcomes of relationships or courses of action, which people evaluate using specific performance criteria.<sup>1</sup> Initial work on the social psychology of commitment suggested that the amount of satisfaction one derives from a relationship or course of action is the principle glue that holds social arrangements together. In contrast, the presence of attractive alternatives is the most important disintegrative force. The relative strength of satisfaction and alternatives determine the strength of a person's commitment to the goods in question and help determine whether relationships continue (Adams and Jones 1997; Arriaga and Agnew 2001; Levinger, 1988; Rusbult and Buunk 1993).

Satisfaction is determined using a kind of cost-benefit analysis in which people weigh experienced rewards against incurred costs to assess the quality of outcomes. The product of this calculation is compared to personal expectations about what constitutes acceptable results, known as the comparison level. Satisfaction is a function of the comparison level and current relational outcomes. Individuals are said to be satisfied with a relationship when outcomes from it surpass what they consider acceptable. When relationship outcomes fall short of the comparison level, dissatisfaction emerges and commitments decline.

Commitments are also influenced by the availability of quality alternatives to a relationship and/or course of action. Alternatives are conceptualized as any arrangement that differs from the status quo, including no relationship at all. When individuals perceive that superior options are available, existing relationships can break down. All things equal, people gravitate to those partners capable of providing them with relatively better outcomes. Absent alternatives, individuals may remain within relationships even if those associations otherwise perform poorly. Thus, alternatives undermine commitments, but only if they are perceived to be available and superior to existing arrangements.

This basic two factor model of commitment was extended by Caryl Rusbult (1980), who proposed that investments are also important for understanding a person's level of commitment. Investments are those concrete (e.g., property) or intangible resources (e.g., time and effort, reputation) that would be lost or diminished if a relationship dissolved (Goodfriend and Agnew 2008). The more one has invested in a relationship or course of action, the more one risks losing if it terminates. Thus, investments bolster commitments.

The resulting three-factor model incorporating satisfaction, alternatives, and investments is referred to by social psychologists as the Investment Model (Rusbult 1980). Although the model suggests that satisfaction level, quality of alternatives, and investment size are the mechanisms that generate commitment, it takes no position about the relative importance of the underlying factors. In other words, the Investment Model does not suggest that any one of the three predictors will be particularly influential in driving commitment. Instead, satisfaction, alternatives, and investments are seen as equal predictors of individual commitment that reinforce one another additively.

Evidence for the Investment Model's basic claim that satisfaction, alternatives, and investments are mechanisms of individual commitment has been demonstrated repeatedly in a wide range of studies focusing on: adult romantic relationships (e.g., Duffy and Rusbult, 1986; Kurdek 1991; Kurdek 1995; Rusbult, Johnson, and Morrow 1986); business partnerships (Ping 1993); and players' attachments to the game of cricket (Carpenter and Coleman 1998). Research also suggests that the Investment Model predicts commitments to more diffuse targets including residential communities (Lyons and Lowery 1989), organizations, such as community colleges (cf. Geyer, Brannon, and Shearon 1987), and medical regimens (Putnam, Finney, Barkley, and Bonner 1994). In foreign policy, the Investment Model has been used to understand commitments to the "War on Terror" (Agnew, Hoffman, Lehmler, and Duncan 2007).

By itself, the Investment Model's ability to understand a wide variety of commitments is encouraging for those interested in augmenting audience cost models with a theory of public preferences over foreign policy goods. Satisfaction, alternatives, and investments look to be general predictors of commitment to a wide variety of targets. Still, the wisdom of using the Investment Model's theoretical architecture to solve microfoundational issues in audience cost models comes as much from the study of public opinion toward foreign policy as it does from social psychological work. The evidence from survey data suggests that satisfaction operates as a commitment-building device among the general public. Polls of Europeans, for example, confirm that satisfaction with the performance of European institutions is an important predictor of the public's interest in furthering European integration (Eichenberg and Dalton 1993). Recent research on "casualty sensitivity" in the U.S. points to similar conclusions: satisfaction with the success of military operations is capable of sustaining the public's support for war even as casualties mount (Gelpi, Feaver, and Reifler 2005/06; Eichenberg 2005).

Polling data also suggests that alerting people to the availability of alternative course of action reduces support for foreign policy actions. The public's commitment to the first Gulf War, for instance, was noticeably weaker when the possibility of nonmilitary solutions to the Iraqi invasion of Kuwait was discussed with respondents (Mueller 1993). Finally, the Investment Model's predictions about the integrative effects of investments also appear

to be borne out in surveys. For example, Tomz's (2007) work on audience costs shows that people are more likely to penalize leaders who break their promises and, as a consequence, squander a state's reputational assets—a finding consistent with the notion that investments build commitments.

While the available polling evidence is consistent with our expectations, it is unclear from the surveys discussed above that any individual Investment Model variable is causally related to commitments controlling for the other two. More generally, it remains to be seen if the Investment Model's causal claims can be demonstrated since the surveys discussed above were not designed to test the relationships between satisfaction, alternatives, investments, and commitments. Controlled experiments can help to sort these questions out.

In the next section, we outline the hypotheses we derived from the Investment Model. Subsequently, we describe the design of laboratory studies we conducted to examine whether the Investment Model constructs are capable of illuminating variation in individual commitments to political institutions such as the UN and NATO. We conclude with a discussion of the results of these tests and their implications for understanding the psychology of individual commitments to international organizations and the design of future audience cost models.

## HYPOTHESES

We focused on the U.S. government's membership in the UN and NATO to examine the Investment Model's capacity to illuminate the mechanisms that drive people's commitments to maintain existing foreign policy relationships. We focused on the UN and NATO for three reasons. First, the UN and NATO are bedrocks of the current international system whose utility to the U.S. has been questioned (see Layne 2005; Wedgewood 2005). If audience cost models are right, public attitudes toward these organizations play a role in determining whether leaders can withdraw from the UN and NATO without suffering significant electoral consequences. Second, the UN and NATO are relatively well-known organizations around which partisan, ideological divides exist (Holsti 2007). Hence, focusing on the UN and NATO enables us to compare the predictive capacity of the Investment Model against an important alternative: ideology explains individual citizen's support for U.S. involvement in international organizations (Wittkopf 1994). Finally, U.S. membership in the UN and NATO are useful proxies for the kinds of foreign policy relationships and assets that audience costs are supposed to protect.

Our first hypothesis is that *satisfaction with the UN and NATO exerts a positive influence on the level of individual commitment toward these organizations*. For example, those who believe that membership in the UN

enables the U.S. to manage international conflicts effectively are more likely to feel satisfied about the UN's performance and, hence, are more likely to be oriented toward maintaining the U.S.'s membership in the world body. Alternatively, those who believe the U.S.'s association with the UN adds little to the U.S.'s ability to deal with international issues are less likely to be satisfied with the UN's performance and less committed to maintaining the U.S.'s status in the organization.

Our second hypothesis is that *an inverse relationship exists between perceived alternatives to the UN and NATO and individual commitment to these organizations*. Alternatives could be other organizations or the appeal of unilateral action. Compelling alternatives to the UN and NATO should degrade individuals' sense of commitment to these organizations, while poor alternatives should strengthen the bonds to the UN and NATO.

Hypothesis three suggests that *the perceived size of investment in the UN and NATO will influence reported commitment levels*. Investments are not only tangible resources, such as financial dues, but also intangible resources, such as time, effort, and reputation. The more people think that these resources have been invested in the UN and NATO, the more likely they will want to maintain the U.S.'s relationship with these organizations.

The fourth hypothesis is *that all three predictor constructs (i.e., satisfaction, alternatives, and investments), when considered as a set, should predict unique variance in commitment to the UN and NATO*. Finally, to the extent that the Investment Model's specified antecedents do indeed cause commitment, our fifth hypothesis is that manipulating levels of satisfaction, alternatives, and investments should result in corresponding increases or decreases in commitment. Specifically, *people will be most committed to NATO and the UN when satisfaction and investments are described as high and alternatives are described as poor. People will be least committed to NATO and the UN when satisfaction and investments are described as low and alternatives are described as good. Additionally, conditions containing optimal (i.e., commitment-promoting) levels of two or more of the Investment Model constructs should yield significantly higher commitment than conditions featuring only one or no optimal level of a predictor*. A summary of these hypotheses appears in Table 1.

## RESEARCH

We conducted two laboratory-based studies to assess whether commitments to the UN and NATO are shaped by assessments of satisfaction, alternatives, and investments. In Study 1, subjects were asked to rate statements expressing their personal satisfaction with, sense of alternatives to, and concept of investments made in the UN and NATO. Responses to these statements were then correlated with subjects' own reported levels of commitment to the

**TABLE 1** Investment Model Hypotheses

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Hypothesis one:	Satisfaction with the UN and NATO exerts a positive influence on the level of individual commitment toward these organizations.
Hypothesis two:	An inverse relationship exists between perceived alternatives to the UN and NATO and individual commitment to these organizations.
Hypothesis three:	The perceived size of investment in the UN and NATO will influence reported commitment levels.
Hypothesis four:	Considered as a set, all three variables (i.e., satisfaction, alternatives, and investments), will predict unique variance in commitment to the UN and NATO.
Hypothesis five:	People will be most committed to NATO and the UN when satisfaction and investments are described as high and alternatives are described as poor. People will be least committed to NATO and the UN when satisfaction and investments are described as low and alternatives are described as high.
Hypothesis five (b):	Conditions containing optimal (i.e., commitment-promoting) levels of two or more of the Investment Model constructs should yield significantly higher commitment than conditions featuring one or zero optimal predictors.

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UN and NATO. In Study 2, subjects were asked to read fictional statements by Senators from their home state about satisfaction with, alternatives to, and investments in the UN and NATO. The statements were manipulated in order to provide evidence for a causal connection between the Investment Model variables and participants' levels of commitment to these organizations. In both studies, subjects were denied incentives to provide the "right" answers to our questions (see Plott and Zeiler 2005), making it harder for our intuitions to be borne out by our data.

Laboratory experiments are appropriate when the research goal is to establish causal connections among theoretical variables (McDermott 2002). In this sense, laboratory experiments are akin to formal models in that both are useful for establishing the internal validity of theoretical claims. As we argued above, existing polling work appears to show that satisfaction, alternatives, and investments influence public support for a variety of foreign policy issues in ways the Investment Model leads us to expect. Still, the polls were not designed to determine the causal relationships between satisfaction, alternatives, investments and commitments to foreign policy targets, the subject of our research.

## Study 1

In Study 1 we gauged the degree to which our subjects' own assessments of satisfaction, alternatives, and investments predicted their level of commitment to the U.S. government's relationship with the UN and NATO. We adapted

items in the Investment Model scale (Rusbult, Martz, and Agnew 1998) to address these organizations.

#### PARTICIPANTS

The sample consisted of 110 undergraduates (77 males, 33 females). Caucasians dominated the sample (74%), but Asian Americans (15%), African Americans (5%), and "Other[s]" (6%) were also represented. The mean age was 19.63 ( $SD=1.16$ ; range=18 to 23). Participants received credit for their involvement in 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 used a computer program to administer the measures listed below to participants.

*Commitment to NATO.* Based on the Rusbult et al. (1998) Investment Model Scale, we created several four-item measures to tap the model's constructs as they relate to NATO. For satisfaction ( $\alpha = .81$ ), the items were: "I feel satisfied with the U.S.-NATO relationship," "The relationship between the U.S. and NATO is much better than the U.S.'s other international relationships," "The relationship between the U.S. and NATO is close to ideal," and "The relationship between the U.S. and NATO does a good job of satisfying the U.S.'s international security needs."

For alternatives ( $\alpha = .52$ ), the following items were used: "The alliances other than NATO that the U.S. might join are not very appealing," "The U.S.'s alternatives to NATO are close to ideal," "The U.S.'s alternatives to NATO are attractive," and "The U.S.'s international security needs easily could be fulfilled by an alternative alliance."

For investments ( $\alpha = .77$ ), the items were: "The U.S. has put a great deal into its relationship with NATO that it would lose if the relationship were to end," "Many aspects of U.S. policy have become linked to NATO and the U.S. would lose all of this if the alliance ended," "The U.S.'s relationships with other countries would be complicated if the U.S. were to end its association with NATO," and "Compared to other members, the U.S. has invested a great deal in the NATO alliance."

Finally we assessed each subject's commitment to NATO ( $\alpha = .63$ ) with these items: "I want the U.S.-NATO relationship to last a very long time," "I am committed to the U.S. maintaining its relationship with NATO," "I would not feel very upset if the U.S.-NATO relationship were to end in the near future," and "It is likely that I would support the U.S. forming a competing alliance (i.e., not with NATO) within the next year." All of the items were rated on a nine-point scale ranging from 0 (*do not agree at all*) to 8 (*agree completely*).

*Commitment to the UN.* We also created several parallel items to tap the model's constructs as they relate to the UN. For satisfaction ( $\alpha = .83$ ), the items were: "I feel satisfied with the U.S.-United Nations relationship," "The relationship between the U.S. and the United Nations is much better than the U.S.'s other international relationships," "The relationship between the U.S. and the United Nations is close to ideal," and "The relationship between the U.S. and the United Nations does a good job of satisfying the U.S.'s international security needs."

The following items ( $\alpha = .57$ ) were used to measure alternatives: "The organizations other than the United Nations with whom the U.S. might become involved are not very appealing," "The U.S.'s alternatives to the United Nations are close to ideal," "The U.S.'s alternatives to the United Nations are attractive," and "The U.S.'s international security needs easily could be fulfilled by another international organization."

For investments ( $\alpha = .74$ ), the items were: "The U.S. has put a great deal into its relationship with the United Nations that it would lose if the relationship were to end," "Many aspects of U.S. policy have become linked to the United Nations and the U.S. would lose all of this if it were to withdraw from the organization," "The U.S.'s relationships with other countries would be complicated if the U.S. were to end its association with the United Nations," and "Compared to other members, the U.S. has invested a great deal in the United Nations."

Last, for commitment to the UN ( $\alpha = .75$ ), the items were: "I want the U.S.-United Nations relationship to last a very long time," "I am committed to the U.S. maintaining its relationship with the United Nations," "I would not feel very upset if U.S. involvement in the United Nations were to end in the near future," and "It is likely that I would support the U.S. joining a competing organization (i.e., not the UN) within the next year." All of the items were rated on a nine-point scale ranging from 0 (*do not agree at all*) to 8 (*agree completely*).

*Political orientation.* Many polls of Americans show partisan differences on questions about U.S. foreign policy with conservatives tending to support unilateral policies and liberals favoring multilateralism. We controlled for the political orientation of respondents to account for the possibility that their answers were influenced by their own political preferences using the following item: "I cannot ever see myself voting to elect conservative candidates." This item was drawn from previous research assessing college students' political orientations (Mehrabian 1996). This item was rated on a nine-point scale ranging from 0 (*do not agree at all*) to 8 (*agree completely*) and reverse-scored so that higher scores indicate conservatism, while lower scores indicate liberalism.

*Political knowledge.* We also created a measure to assess participants' overall knowledge of NATO and the UN. As Delli Carpini and Keeter (1996) point out, average citizens do not have a wealth of political knowledge and

younger citizens tend to be among the least informed. To account for the possibility that our questions produced the observed results because subjects were ill-informed about the UN and NATO, we developed a ten-item political knowledge test focused on the international organizations in question. The measure consisted of ten multiple choice items (five regarding NATO, five regarding the UN). The NATO items included the following: "What does the acronym NATO stand for?" "Which of the following terms best describes NATO?" "True or False: NATO's membership recently expanded to include former allies of the Soviet Union, such as Estonia." "NATO has twenty-six member countries. Which of the following is NOT a member of NATO?" "NATO was formed in approximately what year? 1950, 1960, 1970, or 1980?"

The UN items included the following: "What is the name of the current Secretary General of the United Nations?" "How many countries are permanent members of the United Nation's Security Council?" "True or False: In comparison to other member nations, Japan owes the largest amount of back dues to the United Nations." "The United Nations is made up of six major suborganizations. Which of the following is NOT one of them?" "True or False: Decisions by the UN General Assembly are binding on the UN members." Responses to each item were coded as "0" (incorrect) or "1" (correct). A total international knowledge score was obtained by summing the number of correct responses. Overall scores on this measure were continuous, potentially ranging from 0 (no correct responses) to 10 (all correct responses).

*Demographic measures.* Finally, participants completed several demographic questions, which included questions about age, gender, and race/ethnicity. Participants were also asked to indicate whether they voted in the 2004 Presidential election. Responses to this question were coded as either "yes" (1) or "no" (2).

## RESULTS

Recapping our earlier discussion, the five hypotheses examined in this research are as follows: 1) satisfaction with the UN and NATO exerts a positive influence on the level of individual commitment toward these organizations; 2) an inverse relationship exists between perceived alternatives to the UN and NATO and individual commitment to these organizations; 3) the perceived size of investment in the UN and NATO will influence reported commitment levels; 4) all three predictor constructs (i.e., satisfaction, alternatives, and investments), when considered as a set, should predict unique variance in commitment to the UN and NATO; 5) people will be most committed to NATO and the UN when satisfaction and investments are described as good and alternatives are described as poor. People will be least committed to NATO and the UN when satisfaction and investments are

**TABLE 2** Study 1: Partial Correlations among Investment Model Variables

	Commitment	Satisfaction	Alternatives	Investments
Commitment		.55*	-.17	.35*
Satisfaction	.49*		.12	.51*
Alternatives	-.25*	.12		.03
Investments	.54*	.41	-.06	

Note: Values above the diagonal represent correlations for NATO, while values below the diagonal represent correlations for the UN. All values are controlling for political conservatism, knowledge of international alliances, participation in the 2004 presidential election, and gender.

\* $p < .05$ .  $N = 110$

described as low and alternatives are described as high. Additionally, conditions containing optimal (i.e., commitment-promoting) levels of two or more of the Investment Model constructs should yield significantly higher commitment than conditions featuring only one or no optimal level of a predictor. By and large, all of these hypotheses were supported for both the UN and NATO.

Table 2 presents partial correlations of satisfaction, alternatives, investments and commitment by international target. We computed partial correlations to control for possible effects due to gender, political orientation (conservatism/liberalism), political involvement (voting behavior in 2004 election), and international knowledge. This allowed us to rule out the possibility that these factors could explain the observed associations. Results revealed that both satisfaction ( $r = .55, p < .01$ ) and investments ( $r = .35, p < .01$ ) were significantly correlated and alternatives ( $r = -.17, p < .10$ ) were marginally correlated with commitment to NATO. Similarly, satisfaction ( $r = .49, p < .01$ ), investments ( $r = .54, p < .01$ ), and alternatives ( $r = -.25, p < .01$ ) were all significantly correlated with commitment to the UN. This pattern of results provides strong support for our predictions.

Hypothesis 4 specifies that satisfaction, alternatives, and investments each explain unique variance in observed levels of commitment to NATO and the UN. This hypothesis was largely supported for both international targets, as can be seen below in Tables 3 and 4. In a model that includes only the Investment Model variables to predict commitment to NATO (see Table 3, Model 3), both satisfaction ( $\beta = .53, p < .01$ ) and alternatives ( $\beta = -.22, p < .01$ ), were significant predictors, accounting for nearly two-fifths of the explained variance. Investments, however, was not a statistically significant predictor when assessed alongside satisfaction and alternatives.

These associations remained largely unchanged when controlling for gender, political orientation, political involvement, and international knowledge (see Table 4, Model 2). Additionally, including these control variables did not improve the amount of variance explained beyond that produced by the Investment Model variables alone ( $p = .50$ ). In a model that included only the Investment Model variables relating to the UN, (see Table 4,

**TABLE 3** Study 1: Multiple Regression Results Predicting Commitment to NATO

Predictor Variables	Model 1	Model 2	Model 3
Conservatism	.12	.02	
Knowledge	-.18	.05	
Voted in 2004 Election	.02	-.14	
Gender	.13	.07	
Satisfaction Level		.54**	.53**
Quality of Alternatives		-.23**	-.22**
Investment Size		.08	.11
$R^2$	.05	.40	.38

Note: All values except  $R^2$  represent standardized beta weights.  $N = 110$ .

\*\* $p < .01$ .

**TABLE 4** Study 1: Multiple Regression Results Predicting Commitment to UN

Predictor Variables	Model 1	Model 2	Model 3
Conservatism	-.02	.05	
Knowledge	-.23*	-.05	
Voted in 2004 Election	-.02	.09	
Gender	-.08	-.04	
Satisfaction Level		.39**	.40**
Quality of Alternatives		-.27**	-.28**
Investment Size		.38**	.36**
$R^2$	.07	.50	.48

Note: All values except  $R^2$  represent standardized beta weights.  $N = 110$ .

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

Model 3), satisfaction ( $\beta = .40$ ,  $p < .01$ ), alternatives ( $\beta = -.28$ ,  $p < .01$ ), and investments ( $\beta = .36$ ,  $p < .01$ ) were all significant predictors of commitment, accounting for nearly half of the explained variance ( $R^2 = .48$ ). These associations are significant even when controls for gender, political orientation, political involvement, and international knowledge are introduced. Similar to the NATO analysis, controlling for these variables did not lead to a significant increase in explained variance above and beyond the Investment Model variables ( $p = .40$ ).

## Study 2

Study 1 was useful for establishing that reported levels of commitment covary with subjects' self-reports about their own satisfaction with, sense of investment in, and beliefs about alternatives to the UN and NATO. Study 2 is designed to examine if there is a causal relationship between the Investment Model constructs and reported levels of commitment to the UN and NATO. We examined this question by manipulating experimentally participants' perceived levels of satisfaction, alternatives, and investments toward the UN

and NATO. We expected that participants would be most committed to these international organizations when satisfaction and investments are high, while alternatives are low. The least committed participants would be those who are exposed to statement expressing low satisfaction and low investments and describing high quality alternatives to these institutions (Hypotheses 5 and 5b).

#### PARTICIPANTS

The sample consisted of 194 undergraduates (143 males, 51 females). Participants were predominantly Caucasian (88%); some indicated that they were Asian American (6%), African American (4%), Hispanic American (2%), or "Other" (1%). The mean age was 19.59 ( $SD = 1.15$ ; range = 18 to 24). All participants received credit for a general psychology course.

#### EXPERIMENTAL DESIGN AND MATERIALS

*NATO manipulation.* For the manipulation of the Investment Model variables as they relate to NATO, we crossed the three bases of commitment (satisfaction, alternatives, and investments) with two levels of strength (high, low), yielding eight experimental conditions. Each condition consisted of one statement indicating high or low satisfaction ("The United States is extremely pleased with its relationship with the NATO alliance because it vastly outperforms what the United States expects from international alliances" vs. "The United States is extremely displeased with its relationship with the NATO alliance because it vastly underperforms what the United States expects from international alliances"), one statement indicating high or low investments ("The United States is staking its valuable reputation on its relationship with the NATO alliance by providing it with enormous resources, personnel and logistic support" vs. "The United States is not staking its valuable reputation on its relationship with the NATO alliance by providing it with enormous resources, personnel and logistic support"), and one statement indicating high or low alternatives ("The United States has many international partners who could replace the NATO alliance because NATO lacks unique strategic value to the United States" vs. "The United States has no international partners who could replace the NATO alliance because of NATO's unique strategic value to the United States"). Thus, each condition consisted of a total of three statements, with each of the Investment Model variables represented once. Participants were assigned to one of the eight conditions randomly. A random procedure was also used to determine the order in which the statements were presented to participants.

*UN manipulation.* For the manipulation of the Investment Model variables as they relate to the UN, we followed the same procedure described above for NATO. Each condition consisted of one statement indicating high

or low satisfaction (“The United States is extremely pleased with its relationship with the United Nations because the UN vastly outperforms what the United States expects from international organizations” vs. “The United States is extremely displeased with its relationship with the United Nations because the UN vastly underperforms what the United States expects from international organizations”), one statement indicating high or low investments (“The United States is staking its valuable reputation on its relationship with the United Nations by providing it with enormous resources, personnel and logistic support” vs. “The United States is not staking its valuable reputation on its relationship with the United Nations by providing it with enormous resources, personnel and logistic support”), and one statement indicating high or low alternatives (“The United States can replace its relationship with the United Nations by associating itself with other international organizations because contact with United Nations’ members is not critical for the United States” vs. “The United States cannot replace its relationship with the United Nations by associating itself with other international organizations because contact with United Nations’ members is critical for the United States”). In other words, each condition consisted of a total of three statements, with each of the Investment Model variables represented once. Participants were assigned to one of the eight conditions randomly. Note that target of commitment was a within-subject factor: each participant provided responses with respect to both NATO and the UN; we determined randomly whether questions about the UN or NATO were asked first.

*Manipulation check.* Participants were presented with three items to assess the degree to which our manipulations influenced the bases of commitment to NATO, and three parallel items to assess the success of our manipulations of the bases of commitment to the UN. Of the items, one assessed satisfaction, one assessed investments, and one assessed alternatives. For satisfaction, the item was “Based upon the previous statements, the United States is satisfied with its relationships with NATO/the United Nations.” For investments, the item was “Based upon the previous statements, the United States has put a great deal into its relationship with NATO/the United Nations that it would lose if the relationship were to end.” For alternatives, the item was, “Based upon the previous statements, the United States’ alternatives to its relationship with NATO/the United Nations are close to ideal (e.g., finding another international alliance/associating itself with other international organizations).” For each participant, these items were presented in a random order. Responses were rated on a nine-point scale ranging from 0 (*do not agree at all*) to 8 (*agree completely*). Results of the manipulation checks are presented below.

*Commitment to NATO and the UN.* Commitment to NATO was measured using the following four items ( $\alpha = .94$ ): “I want our relationship with NATO to last a very long time,” “I feel very attached to our relationship—very strongly linked to NATO,” “I am oriented toward the long-term future

of our relationship with NATO,” and “I am committed to maintaining our relationship with NATO.” Commitment to the UN was also assessed with four items ( $\alpha = .95$ ): “I want our relationship with the United Nations to last a very long time,” “I feel very attached to our relationship—very strongly linked to the United Nations,” “I am oriented toward the long-term future of our relationship with the United Nations,” and “I am committed to maintaining our relationship with the United Nations.” All of the commitment items were rated on a nine-point scale ranging from 0 (*do not agree at all*) to 8 (*agree completely*).

*Other measures.* The same conservatism/liberalism item was again administered to assess individuals’ political orientations. Participants also completed the international knowledge and demographic measures used in Study 1.

#### PROCEDURE

College undergraduates were recruited for participation in a study of “perceptions of various international issues.” After obtaining informed consent, we presented participants with instructions using a computer program. Participants were first instructed to do the following: “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 randomly assigned participants to one of the eight possible NATO or eight possible UN conditions. Immediately afterwards, participants completed the manipulation check questions and indicated their current level of commitment to NATO or the UN, as appropriate. Afterwards, participants received the following instructions: “Now, imagine that your Senator would like you to consider a different international issue. On the following screens, you will again be presented with three separate pieces of information, followed by a few questions.” Participants were then randomly assigned to a second experimental condition concerning the other international target. That is, if participants read about NATO first, they read about the UN second, and vice versa. Finally, the remaining dependent measures were presented. After completing all questionnaires, participants were debriefed.

#### MANIPULATION CHECKS

Participants in the four high satisfaction conditions reported significantly higher satisfaction than those participants in the four low satisfaction conditions for both NATO,  $F(7,186) = 156.17$ ,  $p < .001$ , and the UN,  $F(7,186) = 206.70$ ,  $p < .001$ . Similarly, participants in the four high alternatives conditions reported significantly higher alternatives than those participants in the four

low alternatives conditions for both NATO,  $F(7,186) = 40.16, p < .001$ , and the UN,  $F(7,186) = 31.01, p < .001$ . Finally, participants in the four high investment conditions reported significantly higher investment than those participants in the four low investment conditions for both NATO,  $F(7,186) = 24.93, p < .001$ , and the UN,  $F(7,186) = 8.20, p < .01$ . This suggests that the Investment Model constructs were manipulated successfully.

## RESULTS

To begin, we used analysis of variance (ANOVA) to test the prediction that participants were most committed to NATO and to the UN when satisfaction and investments were described as high while alternatives were described as low relative to when satisfaction and investments were described as low and alternatives were described as high. Consistent with Hypothesis 5, significantly higher commitment was reported in the high satisfaction/high investment/low alternatives condition versus the low satisfaction/low investment/high alternatives condition for both NATO,  $F(7,186)=13.09, p < .001$ , and the UN,  $F(7,186)=4.30, p < .05$ . Means for all conditions appear in Table 5.

Next, we tested whether participants were most committed to NATO and the UN when two or more of the Investment Model variables were optimal for commitment promotion (e.g., high satisfaction, low alternatives) relative to models containing only one of the constructs. As expected, participants reported higher commitment when at least two of the Investment Model variables were optimal for commitment promotion versus when one or less of the variables were optimal for both NATO,  $F(7,186) = 3.47, p = .064$ , and the UN,  $F(7,186) = 5.76, p < .05$ .

Finally, analysis of covariance (ANCOVA) was used to control for the effects of gender, participation in the 2004 presidential election, knowledge

**TABLE 5** Study 2: Mean Levels of Commitment by Experimental Condition and International Target

Experimental Condition			NATO	UN
Satisfaction	Alternatives	Investments		
High	Low	High	6.14 (0.34)	6.97 (0.41)
High	High	High	5.94 (0.37)	6.03 (0.43)
High	Low	Low	5.59 (0.37)	6.57 (0.43)
High	High	Low	5.99 (0.37)	5.49 (0.43)
Low	Low	High	6.00 (0.36)	5.10 (0.43)
Low	High	High	5.86 (0.30)	5.59 (0.42)
Low	Low	Low	5.64 (0.36)	4.96 (0.39)
Low	High	Low	4.32 (0.37)	5.86 (0.35)

Note: Numbers represent mean levels of commitment, while values in parentheses represent standard errors.  $N = 194$ .

about international alliances, and political conservatism. This allowed us to rule out the possibility that these other variables were responsible for the observed effects. Even in a model containing these control variables, both analyses yielded the same results. That is, significantly higher commitment was still reported in the high satisfaction/high investment/low alternatives condition versus the low satisfaction/low investment/high alternatives condition for both NATO,  $F(7,186) = 11.62, p < .001$ , and the UN,  $F(7,186) = 3.94, p < .05$ . Additionally, participants still tended to report higher commitment when at least two of the Investment Model variables were optimal versus when one or less of the variables were optimal for both NATO,  $F(7,186) = 3.23, p = .074$ , and the UN,  $F(7,186) = 5.07, p < .05$ .

## GENERAL DISCUSSION

Taken together, studies 1 and 2 suggest that satisfaction, alternatives, and investments are central to the production of individual commitments to the UN and NATO. Study 1 showed that people's own sense of satisfaction with the performance of the UN or NATO, judgment about the level of investments in the UN and NATO, and sense of the quality of alternatives to these organizations were all significantly associated with reported levels of commitment. These results persist even when controls for gender, conservatism, political knowledge, and participation in the 2004 election were introduced.

Based on our subjects' responses in the first study, we were also able to explore the explanatory power of the Investment Model constructs. For both the UN and NATO, the Investment Model constructs explained 48% and 38% of the variance in commitment to each of the respective targets. These results are between 6.5 and 8 times larger than models that only control for gender, conservatism, political knowledge, and participation in the 2004 election. Including measures of the Investment Model constructs appears to provide substantial explanatory benefits. The one caveat is that in models predicting commitment to NATO, investments did not produce statistically significant results when considered along with the other Investment Model predictors. It appears that this unexpected result was caused by collinearity with the measure of satisfaction (see Table 2).

In Study 2, we tested whether experimental manipulations of the Investment Model variables produced expected changes in levels of commitment to the UN and NATO. The results suggest causal connections between the Investment Model variables and commitment to international organizations and alliances. People in the high satisfaction/high investments/low alternatives condition reported significantly higher levels of commitment than subjects in the low satisfaction/low investments/high alternatives condition. That is, those who the Investment Model predicts

should have the strongest commitments consistently expressed greater attachment to the UN and NATO than subjects we anticipated would have the weakest commitments to these organizations. This result is obtained even when controls are introduced.

Study 2 also suggests that psychological commitments to international organizations are driven by multiple factors: models that used only one of the Investment Model constructs underperformed those that included two or more. The “salience” (Clare 2007) of foreign policy assets operates along multiple dimensions. It is worth noting that the results from Study 2 are robust even when the analysis is restricted to the most politically knowledgeable participants (i.e., those scoring 5 or higher on our political knowledge scale). That is, significantly higher commitment was reported in the high satisfaction/high investment/low alternatives condition versus the low satisfaction/low investment/high alternatives for both the UN (contrast  $p < .10$ ) and NATO (contrast  $p < .001$ ). Political knowledge is a predictor of political participation (Delli Carpini and Keeter 1996). By implication, our results suggest that the Investment Model variables predict commitment levels among those who are most likely to use their votes to penalize leaders who violate longstanding agreements. This is the voting demographic leaders must worry about when they contemplate the costs and benefits of renegeing on past promises.

Some may worry about the generalizability of findings based on a convenience sample of college students. However, it would be a mistake to dismiss the findings as peculiar to the subject pool we used. First, available evidence does not clearly support the notion that undergraduates are poor proxies for older Americans when it comes to understanding the dynamics of public opinion. Holsti (2007), for example, concludes that generational differences are at best inconsistent in accounting for the dynamics of opinion in the United States. Existing polls using national probability samples provide further support for the Investment Model constructs. Second, studies of the Investment Model have successfully predicted commitment levels not just in college sophomores, but also in adults. The research described above surely needs additional confirmation as to its generalizability, but satisfaction, alternatives, and investments appear to be robust predictors of commitments regardless of either who is asked or the targets of attention they are asked about.

## CONCLUSION

Audience cost models are important theoretically because they establish a link between the public in democratic societies and the credibility of foreign policy promises. Therefore, these models hold the promise of explaining observed differences between democratic and nondemocratic states in

world affairs. Leaders who abrogate public promises are subject to penalties administered by voters who police ineptitude by elected officials by voting them out of office. The prospect of these penalties restrains leaders from backing away from their pledges, solidifying the credibility of promises made to others and giving democracies an edge in interstate bargaining (Fearon 1994).

Yet, like many important arguments about international relations, the microfoundations of audience cost arguments require more theoretical work. Audience cost models rest on the assumption that voters always penalize leaders who renege, but the empirical record suggests that voters administer penalties selectively. Consequently, audience cost models offer little explanatory leverage with respect to the varying preferences voters have for promise-keeping and tend to overestimate the actual credibility of public promises issued by leaders. The inflexibility of underlying audience cost assumptions constitutes an important limitation on the capacity of these models to successfully predict international interactions.

We think the Investment Model provides a partial solution to this microfoundational problem by offering an answer to questions about the conditions under which citizens are likely to value the foreign policy goods and relationships at stake when leaders consider renegeing. Specifically, this research suggests that leaders face the prospect of audience imposed penalties if they abandon relationships that the public believes perform satisfactorily, have received significant investments, and have few competitors. In contrast, when the people think that relational outcomes are poor, that little has been invested in relationships, and that more appealing associations are available, leaders are unlikely to suffer if they change course.

Thinking beyond theory and about public policy more generally, our research suggests that leaders who decide certain national commitments are no longer desirable can influence faith in those ties. Audience cost models suggest leaders are stuck with the commitments they inherit or make because the public's preference for maintaining those assets are seen as fixed. However, leaders can either strengthen or weaken public support for foreign policy positions, which they clearly try to do by framing issues for the public. The key is crafting messages that highlight the costs or benefits of particular courses of action, the level of investment in particular positions, and the availability of alternatives to the status quo. Leaders who highlight just one of these dimensions may be less effective in their efforts and, perhaps, less likely to remain in office.

## NOTE

1. This perspective draws on insights from Interdependence Theory (see Kelley and Thibaut 1978; Rusbult, Arriaga, and Agnew 2001; Thibaut and Kelley 1959).

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