EXAMINING RESPONSES TO THEOLOGICAL AFFILIATION AND DISAFFILIATION: BOUNDARY CONDITIONS AND CAUSAL PROCESSES

by

MELISA A. BARDEN

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ABSTRACT

EXAMINING RESPONSES TO THEOLOGICAL AFFILIATION AND DISAFFILIATION: BOUNDARY CONDITIONS AND CAUSAL PROCESSES

Melisa A. Barden, PhD

The University of Texas at Arlington, 2010

Supervising Professor: Jared B. Kenworthy

The current study was aimed at examining responses toward theological affiliation and disaffiliation for believers in God and non-believers in God. The current study compared the reactions toward each of four possible classifications of the target group member by manipulating the target's past and present theological belief status: ingroup member, joiner, defector, or outgroup member. The sample included 268 undergraduates (believers in God [n = 150]; non-believers in God [n = 118]) at a public university in the southern US. Participants believed another person was also participating in the study and rated the target individual on a variety of overt and covert dependent measures. A main effect for present status was found such that the outgroup members were rated significantly less positively than the ingroup members. This effect was moderated by Ingroup Identification. Group Image Validation and Expectancy Violation served as mediators for the believers in God but not for the non-believers in God. The mediation model was moderated by ingroup identification. Theoretical implications are discussed.

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CHAPTER 1

INTRODUCTION

1.1 Background

When it comes to group memberships, sometimes you have a choice (e.g., religious affiliation, political orientation) and sometimes it seems as though you have none (e.g., ethnicity, eye color, gender). The premise of this research involved those group memberships that allow a choice and examined what happened when individuals utilized that freedom to change groups. The media has acknowledged a handful of recent cases of defection (leaving a particular group) involving religious affiliation, political orientation, and sports teams. For example, Vermont Senator James Jeffords' (Snow, Karl, King, & Garrett, 2001) and Pennsylvania's Arlen Specter's (Dinan & Lengell, 2009) defection from the U.S. Republican Party to become an Independent in 2001 and to join the Democratic Party in 2009, respectively, made national news. Both instances altered which party controlled the Senate and the consequences were discussed via a number of media outlets. Instances of political defection have also recently occurred in Britain, where eight members of Parliament have joined the conservatives after being members of more liberal parties (Dale, 2009). Another example of highly publicized defection is that of Afghani Abdul Rahman who, in 2006, was threatened with the death penalty when he converted from Islam to Christianity (Labott, 2006).

1.1.1 Group Membership Status

Group defection is an important area to research because it has social and psychological consequences for both the individual who is leaving the group and for the remaining group members. Some research has been conducted to examine this concept from the defector's perspective, but research on the group-level processes (i.e., what happens within

the group that was left) is close to nonexistent. The following will elaborate on some of the research that is pertinent to group defection.

Prislin and colleagues' (Prislin & Christensen, 2002; Prislin, Limbert, & Bauer, 2000) research examined the shifting of majority and minority positions based on defection by a group member. When the group lost a member resulting in minority numerical status, compared to when they gained a member, the remaining group members' attitudes toward the group changed from viewing it as similar and attractive to dissimilar and unattractive (Prislin et al., 2000). The authors attributed the group members' negative reactions to the violation of their expectations. When an individual was a group member, the norm was that they would continue to be a group member. Remaining in the group became the expectation. Therefore, when a member decided to leave a particular group, the defection violated that expectation and created a negative experience for the remaining group members.

The subjective group dynamics model has also been relevant to defection research (Marques, Abrams, & Serodio, 2001). According to this model, whether prescriptive group norms (i.e., norms that dictate what should be done by group members) were followed or disregarded could strongly influence how group members reacted toward each other. The norms were there to help validate the values of the group and create positive distinctiveness from other groups (Tajfel & Turner, 1986). When the norms were not upheld by a deviant group member, the consequence was derogation (e.g., Marques et al., 2001). Hutchison and Abrams (2003) examined how participant's level of identification with the group (see also Marques, Yzerbyt, & Leyens, 1988) played a role in the reactions toward ingroup deviants. They argued that individuals who felt a strong identification with the group, compared to those who did not, would be more critical of deviant members because the deviance threatened the positive image of the group. Results indicated that the high identifiers evaluated deviant members significantly more negatively than did those members who acted consistently with the group norms, whereas the low identifiers did not significantly differ in their ratings of the two types of members.

Hutchison and Abrams concluded that the threat posed to the positive image of the group was more substantial and influential to the high identifiers than to the low identifiers.

In a similar vein to deviance, comparisons between reactions to prototypical and non-prototypical group members have been investigated (Jetten, Branscombe, & Spears, 2002; Jetten, Spears, & Manstead, 1997; Schmitt & Branscombe, 2001). One study (Schmitt & Branscombe, 2001) involved the researchers measuring the participants' ingroup identification and randomly assigning participants to conditions where they were told that they were either prototypical or non-prototypical group members (regarding their gender). Compared to the high identifiers who were told they were prototypical members, the high identifiers who were told that they were non-prototypical members liked non-prototypical targets less and prototypical targets more (Schmitt & Branscombe, 2001). Parallel to derogation of deviant ingroup members, this research indicated that non-prototypical targets have been viewed as a threat to the group and responded to more negatively compared to prototypical ingroup members, especially when a high identifier was told he or she was not a prototypical member of the group.

Group defection, specifically, has been examined by Singer, Radloff, and Wark (1963). In this study, group members were exposed to "renegades" (individuals who defected to join another group), "heretics" (non-conforming ingroup members who prevented the group from attaining a goal), and control ingroup and outgroup members. Participants rated fellow ingroup members the most positively, which was unsurprising. However, the participants rated heretics more positively than outgroup members, and the renegades were rated least positively. These findings provided support for my hypothesis that the negativity felt by ingroup members toward defectors goes beyond that felt toward outgroup members or ingroup members who violate norms in the form of deviance.

Game theory research examined the antecedents and consequences of group defection by creating a dilemma-type situation where the participant could choose to cooperate or compete with their partner and either received a low reward or a high reward, respectively

(Batson & Ahmad, 2001; Dawes, McTavish, & Shaklee, 1977; Hauk & Nagel, 2001; Kramer & Brewer, 1984). Participants were given the option to switch from cooperative play to competitive play at any time, which could be viewed as a form of defection. Although most game theory experiments focus on the factors leading up to the individual's defection, Dawes et al. (1977) found the group members' vocal and behavioral responses intriguing enough to mention in their article even though they were not a focal point of the experiment. They noted that the members who had been influenced by their partners' defection had extreme negative feelings and reactions toward the defector. For example, there were requests not to see the person after the experiment and foul language was used when referring to the defector (Dawes et al., 1977).

1.1.2 Ingroup Identification

As seen in Hutchison and Abrams' (2003) study mentioned above, ingroup identification has the potential to moderate group member reactions toward deviant members. Although the current research involved defection, not deviance, I anticipated similarities between the reactions to these two situations. Both scenarios involved a deviant individual who was/is a group member and negative responses toward that individual based on that deviance; however the difference in these situations is the current status of the individual. Regarding deviance, the individual is currently an ingroup member, whereas in the case of defection the individual is no longer an ingroup member. Given that both situations involved responding to deviance, I anticipated that ingroup identification would influence responses to defection in a similar manner to that of deviance.

Social identity theory (Tajfel & Turner, 1986) did not directly postulate reactions toward a group member defecting from the group. However, Tajfel and Turner claimed that when group memberships were important and salient, a threatened positive group image would be protected by the ingroup members. Based on this theory (Tajfel & Turner, 1986) and empirical findings (Hutchison & Abrams, 2003), for the current research I proposed that ingroup members' reactions toward defection would generally be negative. Furthermore, the strength of this

negativity would be dependent on the ingroup members' level of ingroup identification. Those who strongly identified with the group would be more influenced by and aware of a threat to the group image, compared to those with low identification to the group, and would therefore respond to that threat with greater negativity.

1.1.3 Defection Research

Given the minimal empirical work on defection, Barden and Kenworthy (under review) conducted three studies to specifically examine responses toward group defection. They found that participants had more negative emotional reactions when asked about someone defecting from, compared to joining, a group of which they were a member. This effect was especially pronounced for those who had high levels of ingroup identification. Moreover, the authors conducted additional work that focused on defection from a religious affiliation and concluded that defectors were rated more negatively than were ingroup members as a function of increasing ingroup identification.

One important theoretical question that could not be answered using the research by Barden and Kenworthy (under review) was whether the findings could be attributed to a categorization effect. Researchers have concluded group members tend to favor ingroup members and derogate outgroup members (Hewstone, Rubin, & Willis, 2002). Barden and Kenworthy (under review) alluded to the fact that defectors should be viewed more negatively than outgroup members, but without having a control outgroup member to compare to the defector, it is unclear whether this is the case (cf., Singer et al., 1963).

I attempted to shed some light onto this particular question with my current research. However, I needed to determine whether the chosen group category would be sufficient. A pilot study was conducted to address this question.

CHAPTER 2

PILOT STUDY

2.1 Introduction

In the group defection research conducted by Barden and Kenworthy (under review) religious affiliation (e.g., Baptist, Catholic) was chosen as the categorization dimension. The potential issue with using this classification was that it was unclear whether defection was viewed by the participant as the physical abandonment of the particular place of worship or the psychological rejection of the values/beliefs of the religious affiliation. It is not uncommon for individuals to stop attending services when they enter college. This membership change may have been due to moving away from their place of worship or no longer living with parents who insist on their attendance. Even though these individuals no longer attended services, it does not necessarily mean that they defected from their religious affiliation.

For the current study, I used the groups believers in God and non-believers in God, rather than specific religious denominations because an individual's theological belief was something that did not involve a physical component. Within a religious denomination, someone could reject the place of worship or fellow members while still believing in the core values of the religion. Or vice versa, an individual could also classify him or herself as being a 'Lutheran' because he or she is likely to attend church while not believing in the core values of the religion. These examples illustrate how group defection may involve some ambiguity depending on the dimension chosen. For the current study, the group membership chosen (believers in God or non-believers in God) overlaps exactly with the core beliefs of the group. Therefore, it is clear that defection from the group equates to the rejection of the values and beliefs associated with it. I argued that the processes involved in this type of defection would be parallel to those of other group memberships.

Using this dimension also permitted me to dichotomize the entire sample of students rather than having to compare specific denominations that may not be comparable (i.e., that differ in their permeabilities, belief structures, expectations of membership). Along the same lines of the reasoning above, defection from one religious affiliation may constitute something very different from defection from another religious affiliation. Some more permeable groups may view defection indifferently while other groups with more rigid boundaries may interpret it as extreme disloyalty or disrespect. Also, some religious beliefs are strongly associated with the place of worship which would mean that physical defection from the religious affiliation automatically constitutes rejection of the core beliefs. Conversely, some religions include beliefs that can be upheld regardless of the individual's classification (i.e., member or non-member) within the religious affiliation and defection from the group may be a rejection of the place of worship rather than the core beliefs.

Before I could begin forming hypotheses based on group processes, I had to determine whether individuals viewed theological belief as a distinct category similar to gender or political orientation. I did so by conducting an online pilot test to assess the entitativity (Lickel et al., 2000) of the believers in God and non-believers in God groups. Entitativity was coined by Campbell (1958), and it refers to the perception that the group is distinct from other groups, has clear boundaries, similar members within the group, and outcomes that are shared between the members (Lickel et al., 2000).

In this pilot study, I asked participants to categorize themselves within a dimension (e.g., Gender: male or female) and then answer questions pertaining to that particular group membership. There were nine dimensions examined for this study (see Method). This methodology allowed me to gather pertinent information about the specific dimension I was interested in (Theological Belief) as well as to compare the entitativity ratings between the groups.

2.2 Method

2.2.1 Participants

Two hundred students completed the online survey for partial fulfillment of a research requirement. The sample consisted of 71 males and 129 females. The ethnic breakdown was as follows: 29% White, 21% Black, 17% Hispanic, 25% Asian, 2% Pacific Islander, 4% Multiracial, and 2% 'Other.'

2.2.2 Materials and Procedure

Participants provided online consent prior to beginning the online survey. Once they had given consent, they completed two steps for each of the nine group dimensions. The first step was to choose a classification within the group dimension and the second step was to answer questions regarding the classification they had chosen. The nine dimensions were gender, political orientation, theological belief, major, ethnicity, religious affiliation, nationality, eye color, and sexual orientation. The listing was counterbalanced to limit any order effects.

The questions listed after each group were aimed at evaluating perceptions of entitativity (e.g., How likely is it that other individuals would see my group as a distinct entity/group? How similar are members of this group?). To determine perceived group permeability, participants also answered how easy it would be to switch between groups (e.g., from one major to another) and how likely it would be that someone would switch groups. Students were awarded credit upon completion of the survey.

2.3 Results and Discussion

Exploratory factor analysis consistently showed 2 factors for the variables. The seven entitativity items made up one factor and the two permeability factors made up the other factor. For the theological belief variable, the entitativity factor had an eigenvalue of 4.43 and the permeability factor had an eigenvalue of 1.78. The means, standard deviations, and reliabilities for the entitativity and permeability factors for each variable are listed in Table 2.1. Results indicated that the variable of interest for the proposed study (Theological Belief) had the highest

alpha for the entitativity variable (α = 0.90) and one of the highest means (second only to gender). The participants who self-categorized themselves as believers in God and non-believers in God had entitativity alphas of 0.84 (n = 177) and 0.92 (n = 23), respectively. One caveat that should be mentioned is the unequal sample size between the two groups.

Table 2.1 Means, Standard Deviations, Cronbach's Alpha for Entitativity and Permeability, Pilot Study

	M	SD	α	M	SD	α
	Entitativity			Permeability		
1. Gender	5.2	1.0	.78	1.8	1.1	.80
2. Theological belief	5.1	1.4	.90	2.8	1.5	.84
3. Nationality	5.0	1.1	.81	2.5	1.4	.78
4. Sexual Orientation	5.0	1.2	.81	2.6	1.5	.70
5. Religious affiliation	4.9	1.2	.87	3.0	1.6	.80
6. Major	4.8	1.2	.85	4.3	1.5	.67
7. Ethnicity	4.8	1.1	.84	1.9	1.3	.89
8. Political Orientation	4.6	1.1	.84	3.5	1.5	.74
9. Eye Color	3.0	1.4	.87	3.1	1.9	.85

In this study, I examined the theological belief categorization dimension to explore whether individuals saw the classifications within this dimension as group constructs similar to those of more defined groups within the dimensions of political orientation or gender. The findings show that this categorization is similar to other group categorizations. This result gave me support for the use of this group in the current study and to utilize group processes literature to form my hypotheses.

As noted previously, research on the topic of defection is sparse, yet important. There are many real-world, highly-publicized examples of defection that lead to negative reactions by

the remaining group members. It is likely that this negativity influences the remaining group members' lives directly (e.g., a group member may doubt his or her group membership), but it may also be influential indirectly (e.g., a voter may stop supporting a candidate who has publicly derogated a defector). This research is also important from a theoretical point of view in the sense that it is unclear whether individuals will classify defectors as something differently than ingroup deviants or outgroup members.

Given the defector's prior status as an ingroup member, he or she may be viewed as a deviant member and responses may parallel those of the 'black sheep' literature (Marques et al., 1988). The negative reactions toward defectors may also be the result of a mere categorization effect, whereby defectors are seen as outgroup members and therefore derogated. Based on the Singer et al. (1963) study in which the results indicated that defectors were placed in a separate category than ingroup deviants and outgroup members, I argued that defectors in the current study would be responded to the most negatively. Generally speaking, people classify themselves as either believers or non-believers in God, and therefore these groups should be a good starting point to investigate this line of research.

CHAPTER 3

CURRENT STUDY

3.1 Current Study Introduction

The current study was conducted in order to examine group defection using the dimension of Theological Belief (believers in God and non-believers in God). Unlike the studies conducted by Barden and Kenworthy (under review) which only consisted of participants who had a religious affiliation such as Baptist, Catholic, and Christian while excluding those who were Atheist or Agnostic, this study utilized participants who believe in God as well as participants who do not believe in God. I argued that the believers and non-believers would respond to the targets in a directionally similar manner, but the responses would differ in strength.

Basing my hypotheses on the majority/minority literature, I expected that the minority (non-believers in God, in this case) would respond more strongly toward joiners and defectors. According to researchers in the domain (Guinote, Brown, & Fiske, 2006; Kenworthy, Hewstone, Levine, Martin, & Willis, 2008; Kenworthy & Miller, 2001), minority members tend to feel more concerned and uneasy regarding their group membership and feel as though they lack control compared to majority members. This uneasiness may be due to a lack of consensual validation for the beliefs and opinions associated with the group membership (Deutsch & Gerard, 1955; Kenworthy & Miller, 2001).

Kenworthy and Miller (2001) argued that minority members, compared to majority members, are more aware of their situation and make more attempts to try and attain information which would serve as validation for those beliefs associated with their minority position. Majority members, on the other hand, would not feel as compelled to seek out

validation because the knowledge that they are in the majority is viewed as validation in itself. This research led me to anticipate that the minority (non-believers in God) compared with the majority (believers in God) would be more aware of a change in number (either by an individual joining or leaving the group) and therefore would respond more positively to a joiner and less positively to a defector.

Kenworthy (2003) examined differences between believers and non-believers in God regarding the attributions they made concerning their own beliefs, the beliefs of ingroup members, and the beliefs of outgroup members. The believers did not differ in their ratings of the ingroup (other believers) and outgroup (non-believers) on levels of internality, externality, and rationality of beliefs. Non-believers, on the other hand, rated the ingroup (other non-believers) as having higher internality, lower externality, and higher rationality compared to the outgroup (believers) ratings (Kenworthy, 2003). The author concluded that non-believers, compared to believers, were more prone to attributional bias that favors the ingroup. This finding provides additional support for my hypothesis that the non-believers, compared to believers, would have stronger responses toward ingroup and outgroup members.

Jackson and Hunsberger (1999) also investigated attitudes toward ingroup and outgroup members within the dimension of religion. In this study, believers and non-believers completed a measure of religiosity. The purpose of the study was to investigate any differences in prejudice toward the outgroup between those who were high, compared to low, in religiosity. Ingroup favoritism and outgroup derogation were present regardless of the participant's level of religiosity. However, the authors noted that ingroup identification may play an important role such that participants on the ends of the spectrum (i.e., very religious or very non-religious) may be more likely to show ingroup favoritism and outgroup derogation (Jackson & Hunsberger, 1999). The current research utilized a measure of ingroup identification to explore whether it would serve as a moderator of the relationship between the status of the target (e.g., joiner, ingroup member, outgroup member, defector) and positive ratings.

Another crucial and theoretically novel question that I addressed with this research was whether defection is more than just a categorization effect. As noted earlier, previous research has shown that individuals will show favoritism toward fellow ingroup members and derogation toward outgroup members (Hewstone et al., 2002). Barden and Kenworthy (under review) compared reactions toward ingroup members and defectors only. Without having a control group (an outgroup member) they were unable to conclude whether the participants responded negatively based on the defection or because the participant classified the target as an outgroup member.

For the current study I suggested that, compared to those who were never a member to begin with, individuals who were once members of a group and have since left the group will be viewed more negatively by a remaining ingroup member. People understand that there are many different group memberships available, and interacting with outgroup members is unavoidable. However, fellow ingroup members are not expected to leave or change groups, and I anticipated that this expectancy violation and invalidation of the core beliefs within the group would elicit a stronger negative reaction compared with someone who was never an ingroup member. The current experimental design allowed for the comparison between reactions toward individuals who were fellow ingroup members, those who were once an ingroup member and have since left (defectors), those who were once an outgroup member and have since joined the ingroup (joiners), and those who were, and continue to be, an outgroup member.

The current study involved a manipulation of the past and the present status of the target. The participants filled out a survey where they indicated which group (i.e., believers in God or non-believers in God) they classified themselves into when they were younger (past status) and which they would currently classify themselves into (present status). Then each participant was given a completed form which they thought had been filled out by a fellow participant in the experiment. The form varied depending on the condition and the participant's

present status such that the 'fellow participant' was either an ingroup member, a joiner, a defector, or an outgroup member. The participant then filled out the dependent measures form and played a computerized strategy game which allowed me to determine the positivity of his/her reaction to the fellow participant.

3.2 Hypotheses

3.2.1 Main Hypotheses

I hypothesized a main effect for present status such that present ingroup members would be rated more positively than present outgroup members (Hypothesis 1). However, there is a general expectation that group memberships would be consistent (see Prislin & Christensen, 2002). Therefore, when an outgroup member makes the decision to defect from the outgroup and join the ingroup, it is more noticeable and validating. I expected ingroup members to view someone new choosing to join the group more positively than someone who has always, and currently is, an ingroup member. Ingroup members were also expected to view someone who was once an ingroup member but has since left (defector) more negatively than an outgroup member who has always been one. Therefore, Hypothesis 2a is a 2-way interaction between past status and present status.

However, based on the positive-negative asymmetry effect (Skowronski & Carlston, 1989; see also Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001), I predicted an interaction such that the simple effect of past status for the present outgroup members would be stronger than the simple effect within the present ingroup members. Negatively-valenced information has been shown to influence a person to a greater degree than did positively-valenced information (see also Pratto & John, 1991). Bad events were more powerful than good events and individuals were more likely to pay attention to negative information regarding someone they had just met compared to positive information (Baumeister et al., 2001). Given this asymmetry, Hypothesis 2b stated that participants would have a stronger response to the negative

information (i.e., that the target is a defector compared to an outgroup member) compared to the positive information (i.e., that the target is a joiner compared to an ingroup member).

Hypothesis 3 was aimed at addressing how the consistency of the participant's group membership would influence the positive ratings of the target. I anticipated that individuals who had always been in their current group would rate ingroup members more positively and outgroup members more negatively compared to individuals who had switched their group membership (Hypothesis 3a). I also expected that individuals who had switched, compared to those who had not, would rate the joiners and defectors more positively because they would relate to them (Hypothesis 3b).

3.2.2. Hypotheses comparing Believers in God and Non-believers in God

Based on the majority/minority literature, I anticipated differences in reactions for the believers in God and the non-believers in God. I hypothesized that the non-believers in God would have a stronger positive reaction toward a current ingroup member and a stronger negative reaction toward a current outgroup member compared to the believers in God because they would be more aware of the group membership and more interested in validating their own group membership (Hypothesis 4a).

I also hypothesized that there would be a 3-way interaction such that the non-believers in God, compared to believers in God, would more strongly differentiate between joiners and ingroup members as well as between defectors and outgroup members (Hypothesis 4b). This expectation was also based on the fact that they would be in the minority position.

3.2.3 Additional hypotheses for each Theological Belief condition

3.2.3.1 Moderators

Within each theological belief condition, I anticipated moderating variables. In the work by Barden and Kenworthy (under review), participant's ingroup identification was employed as a quasi-experimental variable. They found that defectors were rated more negatively as a function of increasing ingroup identification. The more strongly the participants identified themselves as

being a member of the group, the more negatively they responded to someone who had left the group. For the current study, I predicted a categorization effect such that present ingroup members would be rated more positively and present outgroup members would be rated less positively as ingroup identification increased (Hypothesis 5a). Also, compared to the low identifiers, I expected high identifiers to respond more negatively to the defectors compared to the outgroup members and more positively to the joiners compared to the ingroup members (Hypothesis 5b).

I also anticipated that the participant's perception of entitativity within the group would moderate the findings. How strongly the participant viewed the group as a distinct, cohesive unit was expected to play a role in their responses to someone based on that person's past or present status within the group. I expected that present ingroup members would be rated more positively and present outgroup members would be rated less positively as ingroup entitativity increased (Hypothesis 6a). Also, individuals who viewed their group as highly entitative, compared to those who did not, were expected to rate defectors more negatively than outgroup members and joiners more positively than ingroup members (Hypothesis 6b). The reason for this hypothesis was that the defectors and joiners would be viewed as disrupting or solidifying, respectively, the bonds between group members.

3.2.3.2 Mediators

The Group Image Validation scale was created by Barden and Kenworthy (under review) with the expectation that the underlying cause of the negative reactions to the defectors is the threatening of the positive group image. When people join a group to which we belong, it tells us that the group is worthwhile and validates the core beliefs, whereas defection may project the opposite. I predicted that the current study would have similar results to that of Barden and Kenworthy (under review) such that Group Image Validation would mediate the link between the target's present status and the positive ratings. I anticipated that the underlying reason for the defectors to be rated less positively than the outgroup members and the joiners

to be rated more positively than the ingroup members is that the group image is either invalidated or validated, respectively (Hypothesis 7a).

As noted above, minority members are more inclined to seek out information that will serve to validate the beliefs of their group (Kenworthy & Miller, 2001). This line of research led me to anticipate the group image validation factor to be a stronger mediator for the target status to positive rating relationships for the non-believers in God compared to the believers in God. I predicted that non-believers in God would view joiners as greater validation and defectors as greater invalidation compared to believers in God (Hypothesis 8a).

Another variable that I hypothesized would mediate the relationship between the classifications of the target (noted above) and positive rating is Expectancy Violation. Expectancy-Violation Theory (Jussim, Coleman, & Lerch, 1987) proposed that evaluations of those who violate our expectations, compared to those who do not, are more extreme especially when the group is salient. In a study by Bettencourt, Dill, Greathouse, Charlton, and Mulholland (1997, Experiment 1), participants read a scenario involving a male job applicant who was skilled or unskilled and who was either Black or White. They also read a scenario about a college male, giving a speech, who was either involved with a football or speech team, and who was described as either skilled or unskilled. Participants rated the targets on global favorability, expectedness of the target's behavior, and how well the target fit into his ethnic or team stereotype. The authors found that the expectancies of the participants mediated the relationship between the group membership and evaluations of the target for both the ethnic and team categories (Bettencourt et al., 1997).

I also predicted that expectancy violation would mediate the link between the target's present status and the positive ratings (Hypothesis 7b). For the simple effects, I anticipated that joiners would be given more positive ratings than ingroup members. Ingroup members would not violate the participant's expectations because they are acting as expected. However, joiners would violate the expectations of the participant in a positive way, such that the greater violation

of expectancy would lead to more positive ratings. I also hypothesized that defectors would be rated less positively than the outgroup members. I anticipated this relationship would be mediated by the violation of expectations. Individuals who have always been an outgroup member would not violate the participant's expectations (similar to the ingroup members, above). Defectors, who were once ingroup members and have switched to the outgroup would lead to an increase in the participant's expectancy violation and less positive ratings. I expected that this mediator would be stronger for the believers in God, compared to the non-believers in God, given their majority status (Hypothesis 8b).

CHAPTER 4

METHOD

4.1 Participants and Design

Two hundred sixty-eight undergraduates (believers in God [n = 150]; non-believers in God [n = 118]) at a public university in the southern US participated in this study in exchange for partial course credit. After eliminating the participants who reported differing theological beliefs in-person and on the prescreening (n = 19) and those who failed the manipulation check (n = 15), 234 participants remained (believers in God [n = 130]; non-believers in God [n = 104]). The final sample was mostly female (65%; male 35%) and White (47%; Black 12%; Asian 20%; Other 17%; Non-specified 4%). Participants were randomly assigned to one of four conditions of this 2 (past status: ingroup, outgroup) X 2 (present status: ingroup, outgroup) between-subjects factorial design.

4.2 Procedure

Participants completed a mass prescreening at the beginning of the semester. Within the prescreening were items aimed at assessing their theological belief. Participants were asked to categorize themselves as either believers in God or non-believers in God and then answered questions based on their classification.

After completing the prescreening, participants were given the opportunity to sign up for the experiment. They were informed that the experiment would involve examining theological beliefs. Upon their arrival, participants were told that the experiment consisted of themselves and one other participant, but they would remain separate in order to control the amount of personal information exchanged and to keep everything anonymous. In reality, this was just a cover story and no other participant was involved.

The participant was also told that along with researching theological beliefs, the experimenter was interested in how individuals felt while participating in a research study and therefore the participant would be given a mood questionnaire (see Appendix B) at three time periods during the study. The mood questionnaire was based on the Positive and Negative Affect Schedule scale (PANAS; Watson, Clark, & Tellegen, 1988). The experimenter reiterated that there were no correct answers regarding the mood questionnaire and the critical point was for the participant to answer as honestly as possible at each time period. The participant was then given the informed consent document to read over and sign and the first mood questionnaire to fill out, while the researcher went through the motions of attending to another participant. Once consent was obtained, the participant was given an initial questionnaire (see Appendix C) to assess the participant's past and present theological belief status.

The experimenter then collected the completed form in order to ostensibly switch it with the (bogus) other participant's completed form. The experimenter returned with a previously prepared, handwritten (gender-matched), completed questionnaire that the participant was led to believe the other participant had filled out. This questionnaire contained the manipulations of past and present status variables (see Table 4.1).

Table 4.1 Wording for the Condition Manipulation

Participant Status: Non-Believer

		Past	
		Ingroup	Outgroup
Present	Ingroup	Growing up I never believed in God which is why I categorized myself into the 'non-believers' group, and this is still the case. I don't believe that God exists. I currently categorize myself into the 'non-believers' group.	Growing up I believed in God which is why I categorized myself into the 'believers' group, however that is not the case anymore. Recently I came to the conclusion that I don't believe that God exists. I currently categorize myself into the 'non-believers' group.
	Outgroup	Growing up I never believed in God which is why I categorized myself into the 'non-believers' group, however that is not the case anymore. Recently I came to the conclusion that I do believe that God exists. I currently categorize myself into the 'believers' group.	Growing up I believed in God which is why I categorized myself into the 'believers' group, and this is still the case. I believe that God exists. I currently categorize myself into the 'believers' group.

Participant Status: Believer

		Past	
		Ingroup	Outgroup
Present	Ingroup	Growing up I believed in God which is why I categorized myself into the 'believers' group, and this is still the case. I believe that God exists. I currently categorize myself into the 'believers' group.	Growing up I never believed in God which is why I categorized myself into the 'non-believers' group, however that is not the case anymore. Recently I came to the conclusion that I do believe that God exists. I currently categorize myself into the 'believers' group.
	Outgroup	Growing up I believed in God which is why I categorized myself into the 'believers' group, however that is not the case anymore. Recently I came to the conclusion that I don't believe that God exists. I currently categorize myself into the 'non-believers' group.	Growing up I never believed in God which is why I categorized myself into the 'non-believers' group, and this is still the case. I don't believe that God exists. I currently categorize myself into the 'non-believers' group.

The four versions varied in their classification (past: ingroup or outgroup member and present: ingroup or outgroup member) depending on the status of the participant (believer in God or non-believer in God). The participant was told to read over their fellow participant's questionnaire carefully and then fill out the other form based on the information learned about the other participant. The form contained the manipulation check which was used to verify that the participant understood and recognized the status of their fellow participant, the Group Image Validation and Expectancy Violation items, the warmth and competence items, and the items assessing the participant's behavioral likelihood to interact with the target (see below for clarification).

The experimenter then collected the questionnaire and the rating form and gave the mood questionnaire a second time. The participant was also given the strategy game instructions which included the point breakdown (see Appendix F). After allowing approximately 5 minutes for the participant to complete the mood questionnaire and read over the strategy game instructions, the researcher explained the game. Participants were told that they would be playing a real-time strategy game with their fellow participant in order to attain the greatest amount of points possible. Throughout the game, participants alternated between the role of "chooser" and "divider." As chooser, she or he decided between a high trust response and a low trust response. For the high trust option, a small amount of points (60) would be guaranteed to both players while the other player would be given the opportunity to split a large amount of points (200) between both players. For the low trust option, a larger amount of points (100) would be guaranteed, and the other player would divide a smaller amount of points (80). If the divider allocated the points evenly, the high trust option would equate to a greater amount of points. However, in both alternatives, the other participant (the divider) could choose to keep all of the points, making the first option a high-risk, high-trust strategy and the second option a low-risk, low-trust strategy. As divider, the participant decided what percentage of the points to allocate to her or himself, and what percentage to allocate to the other participant without

knowing the exact amount of points being allocated. The participants played 12 rounds of this game, six rounds in each role.

For the feedback, the participant was told that after four rounds, he or she would learn the choices/percentages of the other player. The feedback consisted of the trial number along with the percentage the other player assigned to him or herself or the choice and guaranteed points for each player (depending on the role assigned to each trial). The researcher confirmed that the participant understood the game and did not have any additional questions, and then left the room.

After the trials of the computer game were completed, the participant was given the mood questionnaire a last time and a form which the participant was told was a quality control measure for the department. In reality, this form (see Appendix H) was used to verify that the participant believed the cover story, which stated that they were reading about, rating, and playing a computer game with an actual person. It was important to ask this indirectly in order to get an honest answer without concern that the participant was lying to not seem gullible. The participant was then fully debriefed and excused.

4.3 Materials

4.3.1 Ingroup Identification

Six items on the prescreening measured the participant's ingroup identification, based on previous research (e.g., Brown, Condor, Mathews, Wade, & Williams, 1986; Cassidy & Trew, 2001; Luhtanen & Crocker, 1992) using 7-point Likert scales (*1 = strongly disagree* to *7 = strongly agree;* see Appendix A for all items). One factor was extracted from the factor analysis with the items all loading > .85 and accounted for 79.2% of the variance (eigenvalue = 4.8). A single measure of ingroup identification was computed ($\alpha = .95$).

4.3.2 Ingroup Entitativity

Utilizing 7-point Likert scales (*1 = not at all [likely, important, similar]* to *7 = very [likely, important, similar]* see Appendix A for all items), the participants answered seven items in the

prescreening to assess their perception of ingroup entitativity (Lickel et al., 2000; the same items used in the pilot study). All items loaded > .50 and accounted for 60.7% of the variance (eigenvalue = 4.2). The items were averaged to form a single composite of ingroup entitativity (α = .89).

4.3.3 Mediation Variables

Participants completed nine Group Image Validation items and four Expectancy Violation items (based on Biernat, Vescio, & Billings, 1999; see Appendix D). Each of the items utilized a 7-point Likert scale (*1 = strongly disagree* to *7 = strongly agree*). One factor was extracted from the Group Image Validation items. The items loaded > .5 and accounted for 65.8% of the variance (eigenvalue = 5.9). The negative item was reverse-coded and averaged with the remaining items so a higher number indicates greater image validation (α = .93). The four Expectancy Violation items also loaded onto one factor with all items loading > .59 and accounting for 58.0% of the variance (eigenvalue = 2.3). Two items were reverse-coded such that a higher number equates to greater violation of the participant's expectation (α = .76).

4.3.4 Positive Rating

The participant rated their fellow participant on 7-point scales (*1 = not at all* to *7 = very much)* representing where he/she believed their fellow participant would fall on the warmth and competence dimensions (Fiske, Cuddy, & Glick, 2006). Although warmth and competence were expected to emerge as separate factors, according to the factor analysis this was not the case. The items loaded > .50 and accounted for 46.2% of the variance (eigenvalue = 5.1). After reverse-coding the two negative items, a single composite of Positive Rating was computed (α = .87).

4.3.5 Friendship Rating

Along with the Positive Rating items, the participants answered seven questions on 7-point scales (*1 = not at all likely* to *7 = very likely*) regarding their preferences for interacting with the other participant on a friendship level (see Appendix E for all items). The purpose of the

seven items was to make the target person less abstract by having the participant think of him or her in relation to their day-to-day life. One factor emerged with the items loading > .47 and accounting for 54.6% of the variance (eigenvalue = 3.8). One negative item was reverse-coded such that a higher score indicated a greater desire to interact with the other person in a friendly manner (α = .86).

4.3.6 Strategy Game

A behavioral measure was utilized based on a computerized game similar to that of Takahashi et al. (2008). The computerized game was included to add a behavioral component to the dependent measures. The paper-pencil self-report dependent measures that the participant filled out before playing the game gave a general idea of the participant's responses. However, social desirability is always a concern with overt measures. Individuals may want to rate someone very low, but will compensate in order to project the image of a nice, accepting person. In an attempt to tap into the true nature of how the person feels toward the target, they played a game seemingly unrelated to the dependent measures. This measure allowed for the assessment of whether they had positive feelings toward the target (utilizing the high trust options of the game and dividing the points evenly) or if they had distrusting/negative feelings toward the target (choosing the low trust options and dividing the points unevenly) with limited concern about social desirability given the covert nature of the measure.

The game consisted of 12 rounds in which the participant was assigned to the Chooser role and the Divider role evenly. The participant was given feedback three times throughout the game. The majority of the feedback was that the other player chose the high-trust option and divided the points evenly (50% to each), but there were a few instances where the other player gave 60% to him or herself and chose the low-trust option (see Appendix G for the trial/point breakdown). Liebrand, Wilke, Vogel, and Wolters (1986) conducted a study to investigate feedback in a social dilemma game. The participants were given feedback regarding the other members' choices every three trials. The authors determined that the participants who were

'cooperators' were not influenced by whether the other members cooperated or defected, but the 'defectors' were. They noted that it was as though the participants who wanted to defect were looking for a reason to defect as well. Given the findings of this study, I chose to give feedback after four trials to ensure that some responses would be unaffected by feedback. Also, the game was set up with mostly cooperative feedback (choosing the high-trust option or allotting 50%) with a few instances of defection (choosing the low-trust option or not splitting the points evenly) to give those individuals who wanted to defect an excuse to do so. Given that feedback information was presented for the first time after the participant had held both roles twice, another measure was computed that only included the scores from the first round to investigate the responses without any influence from the feedback.

The Chooser data was coded such that for each round, the participant chose the high-trust option (coded as 1) or the low-trust option (coded as 2). To calculate the Chooser data for the entire game, the sum of all six rounds was computed (totals could range from 6-12) and then it was reverse-scored (subtracted by 13) such that a higher number indicated higher trust. A parallel protocol was used to determine the Chooser first round data, in which only the two scores from the first round were added together and reverse-scored.

For the Divider data, every time the participant was in the divider role, he or she determined the percentage of points allocated to the self. To compute the scores, the percentages were averaged together and then reverse-scored such that a higher number indicated a greater average percentage of points allocated to the other participant. The composites were calculated this way in order to stay consistent with the other dependent measures where higher numbers indicate more positivity toward the target.

4.3.7 Mood Scale

To explore the mood scale, a factor analysis was conducted at each time point. Rather than splitting into positive and negative items, the clusters indicated four factors. The factors were deemed positive mood (*interested*, *excited*, *strong*, *enthusiastic*, *proud*, *inspired*,

determined, *active*), negative mood (*distressed*, *upset*, *hostile*, *irritable*), anxious mood (*scared*, *nervous*, *jittery*, *afraid*), and guilt mood (*guilty*, *ashamed*). Reliabilities were computed for each mood factor at each time point. The alphas are listed in Table 4.2. Only the positive mood score had sufficient alphas (>.70) across time periods, so that will be the only mood score discussed.

Table 4.2 Cronbach's Alpha for the Mood Scales at each Time Point, All Participants

Mood	Time 1	Time 2	Time 3
Positive	0.85	0.89	0.90
Anxious	0.72	0.64	0.58
Negative	0.54	0.70	0.50
Guilt	0.51	0.55	0.73

CHAPTER 5

RESULTS

5.1 All Participants

Based on the assumption that participants in both groups (believers in God and non-believers in God) would respond to the target person in a similar manner across conditions, first the entire sample was investigated. The overall means, standard deviations, Cronbach's alpha, and intercorrelations among variables in this experiment can be found in Table 5.1.

Table 5.1 Means, Standard Deviations, Cronbach's Alpha, and Intercorrelations Among Variables, All Participants

	M	SD	α	1	2	3
1. Theo. Belief	--	--	--	--		
2. Past	--	--	--	0.02	--	
3. Present	--	--	--	0.02	0.05	--
4. Identification	4.51	1.81	0.95	0.53**	0.04	0.03
5. Entitativity	4.02	1.59	0.89	0.61**	-0.03	-0.02
6. Pos. Rating	5.09	0.81	0.87	0.01	0.02	0.27**
7. Friend. Rating	5.25	1.03	0.86	0.12	-0.16*	0.05
8. GIV	3.93	1.43	0.93	-0.02	0.06	0.82**
9. EV	3.39	1.27	0.76	0.15*	0.01	0.12

	4	5	6	7	8	9
1. Theo. Belief						
2. Past						
3. Present						
4. Identification	--					
5. Entitativity	0.77**	--				
6. Pos. Rating	-0.02	-0.02	--			
7. Friend. Rating	-0.01	0.05	0.44**	--		
8. GIV	-0.04	-0.03	0.36**	0.14*	--	
9. EV	0.13	0.09	-0.30**	-0.14*	-0.32**	--

Ingroup Identification and Ingroup Entitativity[1] were coded with higher numbers indicating greater identification and entitativity respectively, and thus interpretation of any main effects is straightforward. Both continuous variables were centered in order to reduce multicollinearity in the higher-order models. Interactions were interpreted using simple slopes analysis (Aiken & West, 1991).

I conducted a series of regression analyses for the Positive Rating and Friendship Rating variables. For the models reported below, the past status variable was entered as -1 (outgroup member) and 1 (ingroup member), so that positive coefficients indicate more positive ratings toward a past ingroup member, whereas negative coefficients indicate more positive ratings toward a past outgroup member. The present status variable was entered as -1 (outgroup member) and 1 (ingroup member), so that positive coefficients indicate more positive ratings for a present ingroup member and negative coefficients indicate more positive ratings for present outgroup members.

Regression models were tested sequentially for the Positive and Friendship Rating measures. First, the main effect terms (past status, present status) were entered on step one. Then, the 2-way interaction term was entered in the second step[2]. An interaction is signified by a significant effect for the cross-product term, and a significant change in R^2 with the addition of the interaction term to the model.

5.1.1. Hypothesis 1: Main effect for Present Status

In the first model, $R^2 = 0.08$, $F(2, 223) = 9.08$, $p < 0.01$, there was a main effect for present status, ($B = 0.22$, $t(222) = 4.24$, $p < 0.01$, $sr^2 = 0.07$) such that the Positive Rating was

[1] Although ingroup identification and ingroup entitativity are highly correlated, two separate factors emerged in the factor analysis. Therefore, they will be discussed as separate factors throughout the paper.

[2] These models did not utilize the continuous variables (ingroup identification and ingroup entitativity) because they were confounded with theological belief (i.e., believers in God had higher levels of ingroup identification and ingroup entitativity compared to the non-believers in God).

higher for present ingroup members compared to present outgroup members, supporting hypothesis 1 for the full sample.

The regression analysis for Friendship Rating was conducted in a similar manner. In the first model, $R^2 = 0.03$, $F(2, 231) = 3.36$, $p < 0.05$, the main effect for present status was not significant ($B = 0.06$, $t(230) = 0.82$, $p = 0.41$), which did not support hypothesis 1.

5.1.2. Hypothesis 2a: Past and Present Interaction

For Positive Rating, the statistical interaction between past status and present status was not significant, $B = 0.04$, $t(222) = 0.74$, $p = 0.46$ (see Figure 5.1). This finding did not support hypothesis 2a. The addition of the interaction term did not result in a significant change to the model ($\Delta R^2 = 0.002$, $p = 0.46$).

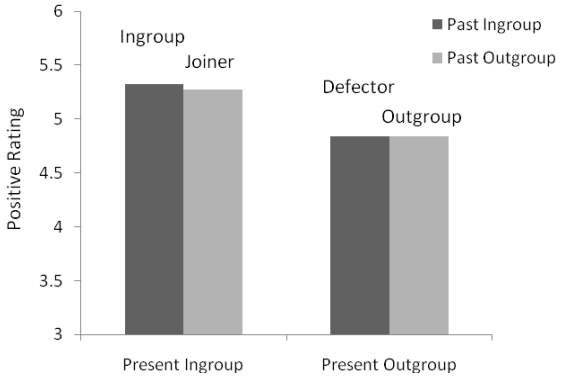

Figure 5.1 Mean Positive Rating as a function of Present Status and Past Status, All Participants

As with positive rating, the statistical interaction between past status and present status using the Friendship Rating was not significant, $B = -0.05$, $t(230) = -0.67$, $p = 0.50$, $sr^2 = 0.02$ and the addition of the interaction term did not result in a significant change to the model ($\Delta R^2 = 0.002$, $p = 0.50$), which also did not support hypothesis 2a. Whether the target was an ingroup or outgroup member in the past did not seem to make a difference to the participants.

5.1.3. Hypothesis 2b: Stronger reactions from negative information compared to positive information

The non-significant interactions between past and present status led to a lack of support for hypothesis 2b for both dependent variables.

5.1.4. Hypothesis 3a: Individuals who did not switch, compared to those who switched, would rate present ingroup members more positively and present outgroup members more negatively

Given that one of the key points of this research was to investigate reactions toward target individuals who have switched group memberships, it was important to take into consideration whether the participant had switched groups. Current non-believers in God were more likely to have switched groups than believers in God (43% versus 2%, respectively). In order to investigate whether this finding had an effect, regression analyses were conducted with Positive and Friendship Ratings using past status, present status, and the switch variable. For the Positive Rating variable, there was a significant interaction between present status and switch (B = 0.30, t(226) = 2.34, $p < 0.03$, sr^2 = 0.02; see Figure 5.2). This result supported Hypothesis 3a such that the participants who did not switch rated the present ingroup members more positively and present outgroup members more negatively than the participants who switched groups in the past.

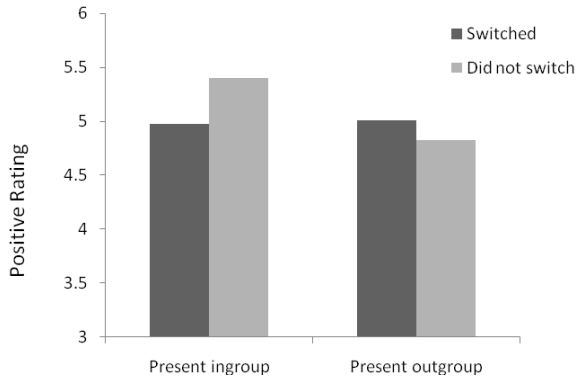

Figure 5.2 Mean Positive Rating as a function of Present Status and the Switch variable, All Participants

For the Friendship Rating variable, the interaction between present status and switch (B = 0.29, t(226) = 1.73, $p < 0.09$, $sr^2 = 0.01$) was only marginally significant, but directionally similar to the Positive Rating variable.

5.1.5. Hypothesis 3b: Individuals who had switched, compared to those who did not, would rate the joiners and defectors more positively

The 3-way interaction between past status, present status, and switch was not significant for the Positive Rating (B = 0.09, t(226) = 0.68, p = 0.50), thus Hypothesis 3b was not supported. However it is interesting (at least directionally; see Figure 5.3) that those who had switched did not vary in their ratings of the different classifications compared to those who had not switched. This finding provides some evidence that the switchers may not be fully committed to their current ingroup.

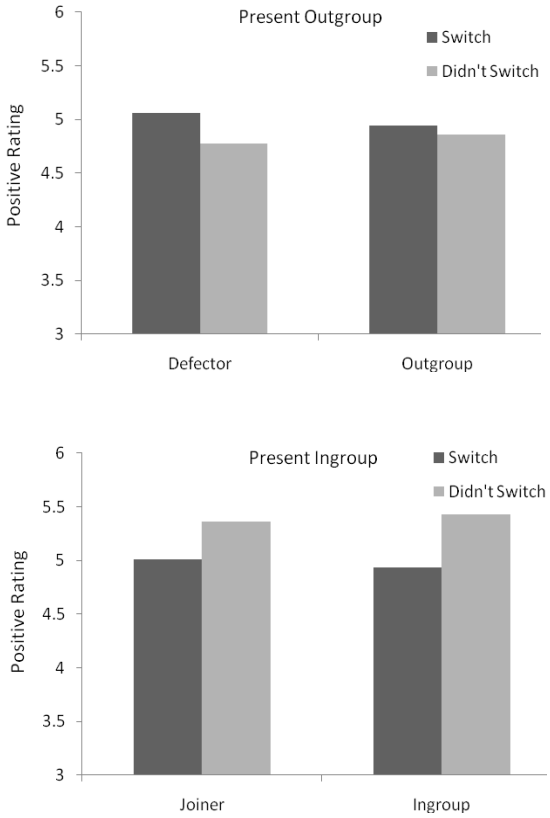

Figure 5.3 Mean Positive Rating as a function of Past Status and the Switch Variable for Present Outgroup members (top) and Present Ingroup members (bottom), All Participants

The 3-way interaction was not significant for the Friendship Rating (B = 0.10, t(226) = 0.62, p = 0.54). Because of the significant interactions based on the switch variable, for the remaining analyses, it will be used as a control variable for both the believers and non-believers in God.

5.1.6. Hypothesis 4a: Non-believers in God would have stronger positive and negative reactions to the present ingroup and outgroup members, respectively

The next step was to investigate whether adding the theological belief variable influenced the results. For these regression analyses, the main effect terms (past status, present status, and theological belief) were entered together first. The three cross-product

interaction terms were entered in the next step. The 3-way interaction term was entered in the third, and final, step.

For the Positive Rating variable, the interaction between present status and theological belief was significant (B = 0.23, t(225) = 2.17, p = 0.03, sr^2 = 0.02; see Figure 5.4), however the directionality of the interaction was in the opposite direction of my prediction. The believers in God differentiated between the present ingroup and outgroup members to a greater degree than did the non-believers in God.

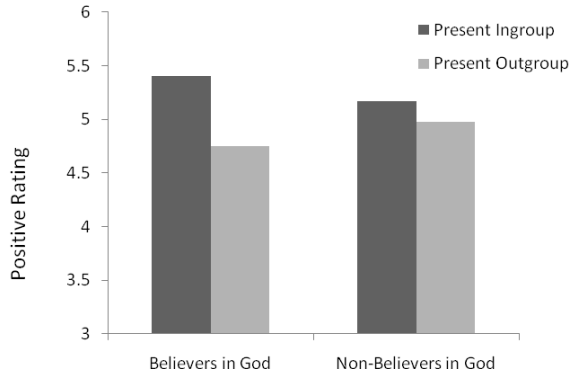

Figure 5.4 Mean Positive Rating as a function of
Present Status and Theological Belief, All Participants

For the Friendship Rating variable, the 2-way interaction between present status and Theological belief was non-significant and the addition of the terms did not change the model significantly (ΔR^2 = 0.01, p = 0.76).

5.1.7. Hypothesis 4b: Non-believers in God would have stronger positive and negative reactions to the joiners and defectors, respectively

For Positive Rating, the 3-way interaction between past status, present status, and theological belief was not significant, B = -0.04, t(225) = -0.36, p = 0.72, see Figure 5.5. The addition of the three-way interaction did not result in a significant change to the model (ΔR^2 = 0.001, p = 0.72). Hypothesis 4b was not supported, such that the non-believers God rated the outgroup members and defectors more positively compared to the believers in God and the

ingroup members and joiners less positively compared to the believers in God. This was in opposition to the expectation.

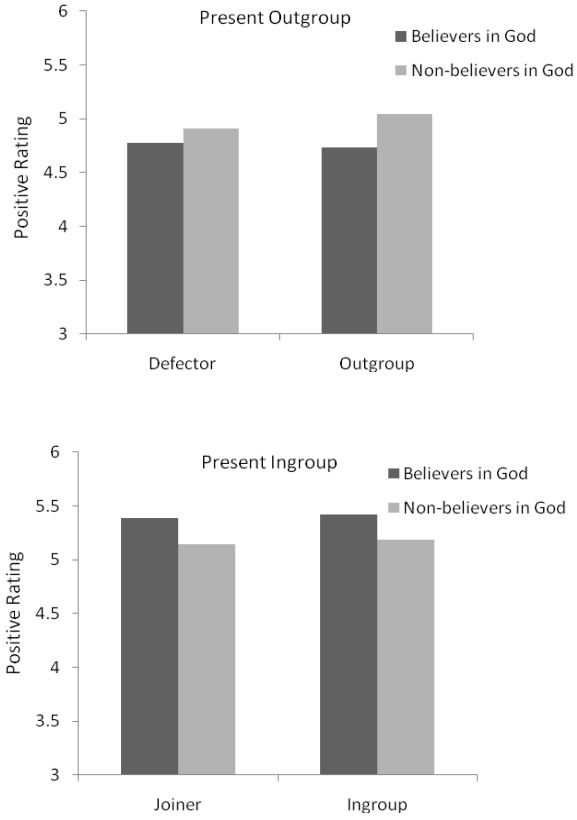

Figure 5.5 Mean Positive Rating as a function of Past Status and Theological Belief for Present Outgroup members (top) and Present Ingroup members (bottom), All Participants

Adding the 3-way interaction also did not change the model ($\Delta R^2 = 0.01$, $p = 0.26$) and it, too, was non-significant for the Friendship Rating. Given that responses differed based on the participant's theological belief classification, the remaining results investigated the hypotheses separately for both groups.

5.2 Believers in God

The overall means, standard deviations, Cronbach's alpha, and intercorrelations among variables in this sub-sample (n = 130) can be found in Table 5.2. The dependent measures for the following analyses were Positive Rating and Friendship Rating as well as the

measures from the strategy game. Regarding the strategy game, the results will be discussed in terms of the chooser role and the divider role, either as the aggregate of the entire game or just examining the first round (before feedback was given). The means and standard deviations for the dependent measures and the mood scale are listed in Table 5.3.

Table 5.2 Means, Standard Deviations, Cronbach's Alpha, and Intercorrelations Among Variables, Believers in God

	M	SD	α	1	2	3	4	5	6
1. Past	--	--	--	--					
2. Present	--	--	--	0.08	--				
3. Identification	5.37	0.14	0.94	-0.02	-0.05	--			
4. Entitativity	4.89	0.11	0.83	-0.11	-0.03	0.68**	--		
5. Pos. Rating	5.10	0.08	0.89	0.05	0.37**	-0.03	-0.02	--	
6. Friend. Rating	5.36	0.09	0.87	-0.19*	-0.01	0.03	0.08	0.47**	--
7. GIV	3.90	0.14	0.95	0.14	0.88**	-0.07	-0.03	0.47**	0.11
8. EV	3.55	0.12	0.78	-0.08	-0.53**	0.01	0.00	-0.52**	-0.30**
9. Chooser role	3.76	1.55		-0.22*	-0.06	-0.08	-0.07	0.00	0.06
10. Divider role	38.74	14.01		-0.17	0.06	0.00	0.11	0.02	-0.05
11. Chooser R1	1.96	0.81		-0.21*	-0.09	0.01	-0.03	-0.10	-0.04
12. Divider R 1	37.01	17.87		-0.08	0.02	-0.16	-0.09	0.04	-0.02
13. Pos. Mood T1	2.90	0.81	0.87	-0.03	-0.14	-0.09	0.06	-0.04	0.16
14. Pos. Mood T2	3.26	0.88	0.90	-0.81	-0.10	0.01	0.09	0.04	0.28**
15. Pos. Mood T3	3.00	0.92	0.90	-0.07	-0.11	0.03	0.04	0.02	0.13

	7	8	9	10	11	12	13	14	15
7. GIV	--								
8. EV	-0.63**	--							
9. Chooser role	-0.05	-0.04	--						
10. Divider role	0.00	0.04	0.36**	--					
11. Chooser R1	-0.15	0.06	0.77**	0.31**	--				
12. Divider R 1	0.03	-0.07	0.29**	0.78**	0.26**	--			
13. Pos. Mood T1	-0.13	-0.05	0.15	-0.04	0.16	0.06	--		
14. Pos. Mood T2	-0.03	-0.07	0.19*	0.05	0.16	0.15	0.79**	--	
15. Pos. Mood T3	-0.08	-0.13	0.18*	0.01	0.16	0.15	0.78**	0.81**	--

Table 5.3 Means and Standard Deviations, Mood Scale and Dependent Measures at each Time Point, Believers in God

	Variable	Time 1	Time 2	Time 3
Joiner	Positive Mood	2.82 (0.78)	3.30 (0.87)	3.08 (0.86)
	Positive Rating		5.39 (0.68)	
	Friendship Rating		5.54 (0.94)	
	Chooser			4.10 (1.70)
	Divider			41.90 (13.70)
Ingroup Member	Positive Mood	2.76 (0.81)	3.07 (0.78)	2.76 (0.85)
	Positive Rating		5.42 (0.79)	
	Friendship Rating		5.20 (0.92)	
	Chooser			3.31 (1.35)
	Divider			37.39 (13.69)
Outgroup Member	Positive Mood	3.02 (0.84)	3.36 (0.91)	3.05 (0.98)
	Positive Rating		4.73 (0.91)	
	Friendship Rating		5.57 (0.95)	
	Chooser			4.13 (1.58)
	Divider			40.36 (12.91)
Defector	Positive Mood	3.02 (0.83)	3.34 (0.96)	3.16 (1.00)
	Positive Rating		4.78 (0.98)	
	Friendship Rating		5.15 (1.16)	
	Chooser			3.57 (1.48)
	Divider			35.26 (15.52)

5.2.1. Hypothesis 1: Main effect for Present Status

The first analyses examined the Positive Rating dependent measure. First, Ingroup Identification was included with the past and present status variables. In the first model, R^2 = 0.20, $F(4, 114) = 7.21$, $p < 0.01$, there was a significant main effect for present status, ($B = 0.34$, $t(110) = 4.51$, $p < 0.01$, $sr^2 = 0.14$) such that present ingroup members were rated more positively than the present outgroup members. For the next analysis, Ingroup Entitativity was included with the past and present status variables. In the first model, $R^2 = 0.19$, $F(4, 117) = 6.65$, $p < 0.01$, there was a significant main effect for present status, ($B = 0.35$, $t(113) = 4.54$, $p < 0.01$, $sr^2 = 0.15$).

Identical analyses were conducted to investigate the Friendship Rating dependent measure. The model utilizing past status, present status, and Ingroup Identification was explored first. In this model, there were no significant effects. There were also no significant effects within the model utilizing Ingroup Entitativity with the past and present status variables.

The next model used the chooser data from the entire game and ingroup identification (R^2 = 0.05, F(4, 111) = 1.43, p = 0.23) and the main effect was not significant. When examining the chooser data from the first round, (R^2 = 0.03, F(4, 110) = 0.83, p = 0.51), there were no main effects. Next, ingroup entitativity was examined with the chooser data from the entire game (R^2 = 0.06, F(4, 114) = 1.91, p = 0.11) and the main effect was not found to be significant. Finally, the main effect was not significant when ingroup entitativity was examined with the chooser data from the first round (R^2 = 0.04, F(4, 113) = 1.31, p = 0.27).

Analyses were conducted to examine the divider data using past status, present status, and both Ingroup Identification and Ingroup Entitativity. It was found that none of the regression analyses were significant, therefore they will not be discussed.

5.2.2. Hypothesis 2a: Past and Present Interaction

None of the models had significant interactions between past status and present status and therefore this hypothesis was not supported. Participants seemed to only focus on the present status of the target individual and not whether they had always been a member of that particular group.

5.2.3. Hypothesis 2b: Stronger reactions from negative information compared to positive information

Given the lack of significant past status by present status interactions, participants did not respond more negatively to defectors compared to outgroup members or more positively to joiners compared to ingroup members. Therefore, I could not compare the strength of these differences so there is no support for this hypothesis.

5.2.4. Hypothesis 5a: Present ingroup members would be rated more positively and present outgroup members would be rated less positively as ingroup identification increased

For Positive Rating, the statistical interaction between present status and Ingroup Identification was marginally significant (B = 0.10, t(110) = 1.87, $p < 0.07$, $sr^2 = 0.02$). Given the marginally significant 2-way interaction, I explored the simple effects of Ingroup Identification on Positive Rating within the present status condition. Dummy codes were used such that the ingroup member and outgroup member were coded as 1, 0 (respectively) when comparing the outgroup member condition and 0, 1 (respectively) when comparing the ingroup member condition. Ingroup Identification did not predict Positive Rating for the present ingroup members (B = 0.09, t(115) = 1.24, p = 0.22) or the present outgroup members (B = -0.11, t(115) = -1.43, p = 0.16; See Figure 5.6). Directionally speaking, as ingroup identification increased, positive ratings of the present ingroup member increased and decreased for the present outgroup members.

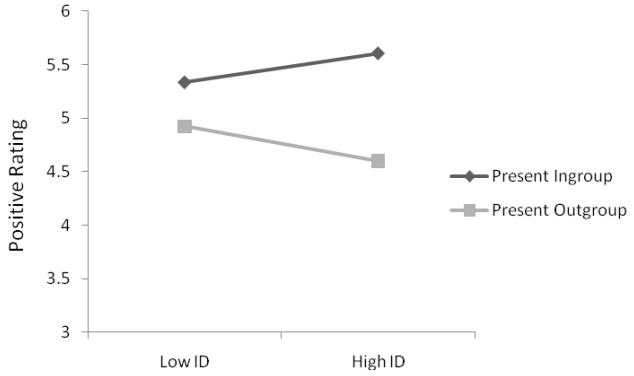

Figure 5.6. Simple slopes of Positive Rating regressed onto Ingroup Identification, as a function of Present Status

For the round one chooser data, the interaction between present status and Ingroup Identification was marginally significant (B = -0.09, t(106) = -1.79, $p < 0.08$, $sr^2 = 0.03$). I examined the simple effects of Ingroup Identification on the Chooser first round data for the present status condition. The simple effect of Ingroup Identification on the Chooser first round

data was not significant for present ingroup members (*B* = -0.09, *t*(111) = -1.33, *p* = .19) or present outgroup members (*B* = 0.10, *t*(111) = 1.37, *p* = 0.17; see Figure 5.7). Interestingly, however, the direction of the results are opposite in the behavioral measure compared to the attitude ratings. As ingroup identification increases, trust increased for the present outgroup and decreased for the present ingroup.

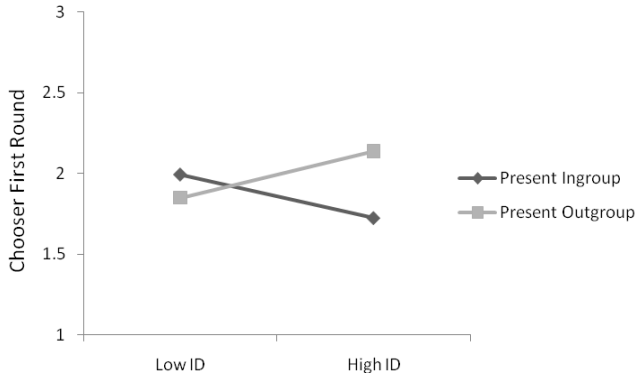

Figure 5.7. Simple slopes of Chooser First Round regressed onto Ingroup Identification, as a function of Present Status

5.2.5. Hypothesis 5b: High identifiers, compared to the low identifiers, would respond more negatively to the defectors compared to the outgroup members and more positively to the joiners compared to the ingroup members

The 3-way interaction for Positive Rating was not significant (*B* = -0.07, t(110) = -1.41, *p* = 0.16) and the addition of the interaction term did not significantly change the model (ΔR^2 = 0.01, *p* = 0.16). Although the 3-way interaction was not significant, I explored the hypothesized simple effects of Ingroup Identification on Positive Rating for past ingroup and outgroup members in the present ingroup and outgroup conditions separately. Specifically, I graphed the outgroup member and defector (both present outgroup members) together and the ingroup member and the joiner (both present ingroup members) together. In the present ingroup condition, Ingroup Identification did not predict Positive Rating for either ingroup members or joiners (*B* = 0.08, *t*(110) = 0.76, *p* = 0.45, and *B* = 0.10, *t*(110) = 0.95, *p* = 0.34, respectively). In the present outgroup condition, Ingroup Identification predicted Positive Rating for outgroup

members (B = -0.22, t(110) = -2.28, p < 0.03), but not for the defectors (B = 0.04, t(110) = 0.31, p = 0.75; see Figure 5.8.

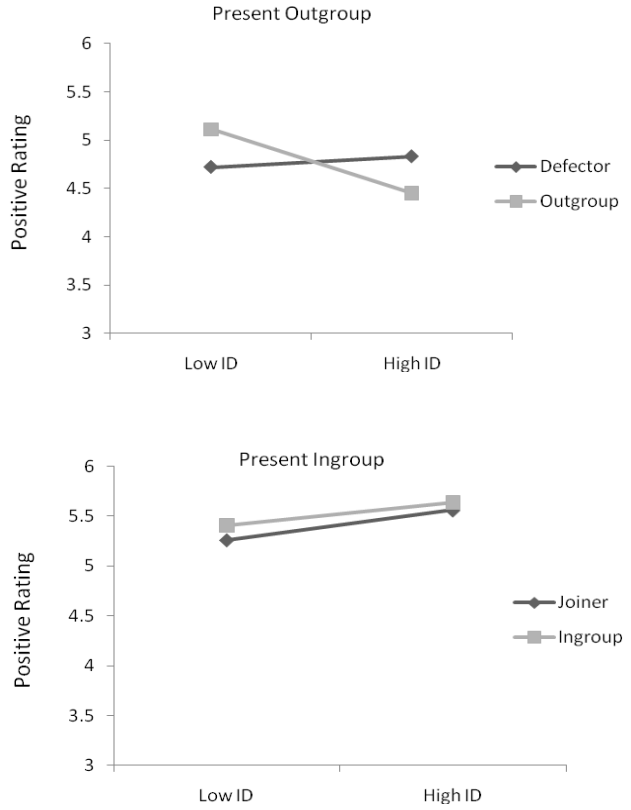

Figure 5.8. Simple slopes of Positive Rating regressed onto Ingroup Identification, as a function of Past Status, for Present Outgroup members (top) and Present Ingroup members (bottom)

The 3-way interaction was marginally significant for the chooser data (B = 0.16, t(107) = 1.74, p < 0.09) and the addition of the interaction term changed the model marginally significantly (ΔR^2 = 0.03, p < 0.09). Simple slopes analyses were conducted to investigate this interaction. In the present ingroup condition, Ingroup Identification did not predict the Chooser data for either ingroup members or joiners (B = -0.06, t(107) = -0.36, p = 0.72, and B = -0.29, t(107) = -1.46, p = 0.15, respectively). In the present outgroup condition, Ingroup Identification also did not predict the Chooser data for outgroup members or defectors (B = 0.19, t(107) = 1.02, p = 0.31 and B = -0.23, t(107) = -1.18, p = 0.24, respectively; see Figure 5.9). Similar to

that of the first round data, as identification increased, trust for the present ingroup (joiners and ingroup members) decreased. For the present outgroup, trust decreased for the defector, but increased for the outgroup member.

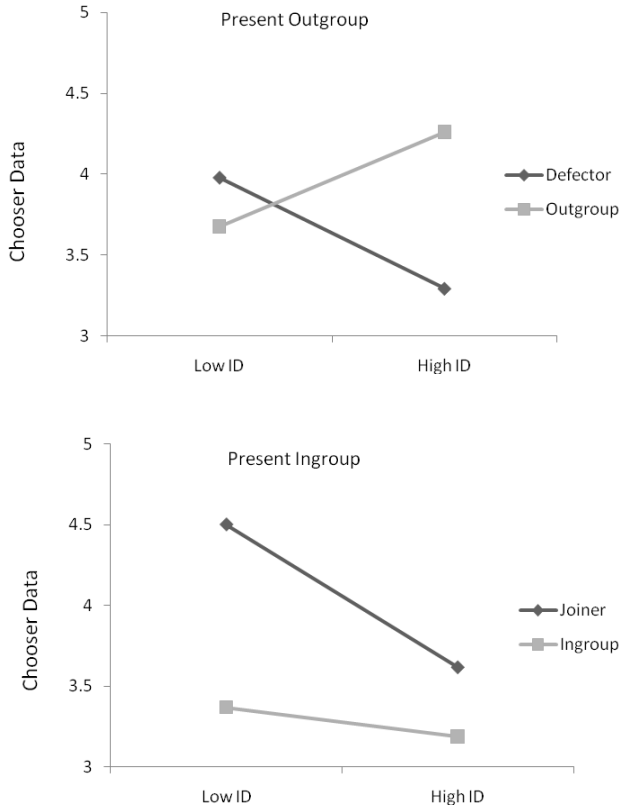

Figure 5.9. Simple slopes of Chooser Data regressed onto Ingroup Identification, as a function of Past Status, for Present Outgroup members (top) and Present Ingroup members (bottom)

Examining the data alternatively, for high ingroup identifiers, the simple effect of past status was marginally significant for the present outgroup members (defectors and outgroup members; B = -0.48, $t(107)$ = -1.74, $p < 0.09$), but not for the present ingroup members (joiners and ingroup members; B = -0.22, $t(107)$ = -0.73, p = 0.47). In the low ingroup identification condition, the simple effect of past status was significant for the present ingroup members (B = -0.57, $t(107)$ = -2.08, $p < 0.05$) but not for the present outgroup members (B = 0.15, $t(107)$ = 0.54, p = 0.60).

The addition of the 3-way interaction also significantly changed the model for the chooser round 1 data ($\Delta R^2 = 0.06$, $p < 0.01$) and the 3-way interaction was significant ($B = 0.13$, $t(106) = 2.76$, $p < 0.01$). Given the significant 3-way interaction, simple slopes analyses were performed. In the present ingroup condition, Ingroup Identification predicted the Chooser first round data for the joiner condition ($B = -0.23$, $t(106) = -2.16$, $p < 0.04$) but not for the ingroup condition ($B = 0.03$, $t(106) = 0.39$, $p = 0.70$). In the present outgroup condition, Ingroup Identification also predicted the Chooser first round data for outgroup members ($B = 0.21$, $t(106) = 2.07$, $p < 0.05$) but not for defectors ($B = -0.06$, $t(106) = -0.65$, $p = 0.52$; see Figure 5.10). The findings were directionally similar to the first round data.

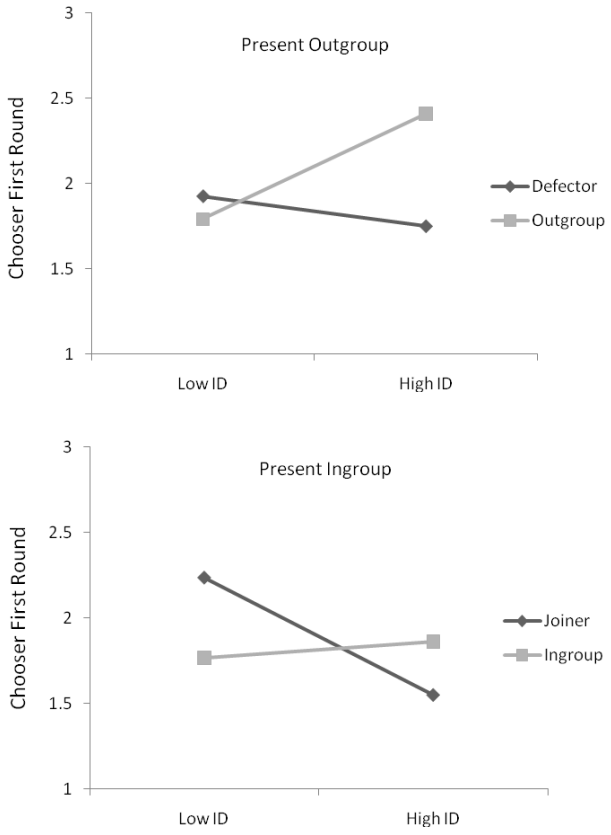

Figure 5.10. Simple slopes of Chooser First Round regressed onto Ingroup Identification, as a function of Past Status, for Present Outgroup members (top) and Present Ingroup members (bottom)

Similar to the previous model, for high ingroup identifiers, the simple effect of past status was significant for the present outgroup members (defectors and outgroup members; B = -0.33, $t(106)$ = -2.29, $p < 0.03$), but not for the present ingroup members (joiners and ingroup members; B = 0.16, $t(106)$ = 1.09, p = 0.28). In the low ingroup identification condition, the simple effect of past status was marginally significant for the present ingroup members (B = -0.23, $t(106)$ = -1.76, $p < 0.09$) but not for the present outgroup members (B = 0.07, $t(106)$ = 0.46, p = 0.65).

5.2.6. Hypothesis 6a: Present ingroup members would be rated more positively and present outgroup members would be rated less positively as ingroup entitativity increased

None of the interactions between present status and ingroup entitativity were found to be significant. Ratings of entitativity did not seem to influence the participant's reactions toward the target individuals and therefore this hypothesis was not supported.

5.2.7. Hypothesis 6b: Individuals who viewed their group as highly entitative, compared to those who did not, would rate defectors more negatively than outgroup members and joiners more positively than ingroup members

Similar to Hypothesis 6a, there were no significant 3-way interactions while using ingroup entitativity and thus this hypothesis was also not supported.

5.3 Non-believers in God

The overall means, standard deviations, Cronbach's alpha, and intercorrelations among variables in this sub-sample (n = 104) can be found in Table 5.4. As with the believers in God, the means and standard deviations of positive mood and the main dependent measures for each of the target statuses are listed in Table 5.5.

Table 5.4 Means, Standard Deviations, Cronbach's Alpha, and Intercorrelations Among Variables, Non-believers in God

	M	SD	α	1	2	3	4	5	6
1. Past	--	--	--	--					
2. Present	--	--	--	0.02	--				
3. Identification	3.46	0.16	0.91	0.11	0.11	--			
4. Entitativity	2.92	0.13	0.80	0.07	-0.05	0.63**	--		
5. Pos. Rating	5.07	0.07	0.84	-0.03	0.13	-0.07	-0.11	--	
6. Friend. Rating	5.12	0.10	0.85	-0.13	0.10	-0.20*	-0.15	0.41**	--
7. GIV	3.96	0.12	0.90	-0.09	0.75**	0.04	-0.01	0.13	0.19
8. EV	3.18	0.11	0.72	0.12	0.44**	0.08	-0.04	0.07	0.02
9. Chooser role	3.60	0.16		0.02	0.16	0.00	-0.22*	0.04	0.00
10. Divider role	35.33	1.54		-0.03	0.14	0.01	-0.09	0.06	0.18
11. Chooser R1	1.80	0.07		-0.05	0.12	0.06	-0.17	0.07	0.05
12. Divider R 1	34.39	2.00		0.03	0.15	-0.07	-0.21*	0.07	0.16
13. Pos. Mood T1	2.77	0.76	0.82	0.01	0.05	0.02	0.09	0.14	0.36**
14. Pos. Mood T2	2.97	0.85	0.89	0.07	0	0.07	0.09	0.28**	0.40**
15. Pos. Mood T3	2.75	0.93	0.91	0.12	-0.03	-0.11	-0.12	0.32**	0.40**

	7	8	9	10	11	12	13	14	15
7. GIV	--								
8. EV	0.27**	--							
9. Chooser role	0.12	0.07	--						
10. Divider role	0.20*	0.08	0.44**	--					
11. Chooser R1	0.09	0.06	0.75**	0.25*	--				
12. Divider R 1	0.24*	0.09	0.43**	0.77**	0.30**	--			
13. Pos. Mood T1	0.06	-0.02	-0.11	0	-0.05	-0.06	--		
14. Pos. Mood T2	0.06	0.02	-0.04	0.02	0.03	-0.10	0.83**	--	
15. Pos. Mood T3	0.04	-0.06	-0.12	0.01	-0.04	0	0.71**	0.79**	--

Table 5.5 Means and Standard Deviations, Mood Scale and Dependent Measures at each Time Point, Non-believers in God

	Variable	Time 1	Time 2	Time 3
Joiner	Positive Mood	2.85 (0.67)	2.94 (0.86)	2.60 (0.77)
	Positive Rating		5.15 (0.73)	
	Friendship Rating		5.50 (0.92)	
	Chooser			3.77 (1.42)
	Divider			39.27 (13.67)
Ingroup Member	Positive Mood	2.77 (0.76)	3.00 (0.78)	2.86 (1.03)
	Positive Rating		5.19 (0.66)	
	Friendship Rating		4.95 (1.17)	
	Chooser			3.96 (1.87)
	Divider			35.63 (17.16)
Outgroup Member	Positive Mood	2.69 (0.71)	2.88 (0.79)	2.69 (0.86)
	Positive Rating		5.05 (0.73)	
	Friendship Rating		5.02 (1.10)	
	Chooser			3.37 (1.52)
	Divider			32.33 (14.17)
Defector	Positive Mood	2.81 (0.91)	3.07 (0.98)	2.87 (1.05)
	Positive Rating		4.91 (0.68)	
	Friendship Rating		5.00 (1.02)	
	Chooser			3.28 (1.81)
	Divider			34.16 (17.68)

5.3.1. Hypothesis 1: Main effect for Present Status

For the first analysis using Positive Rating, Ingroup Identification was included with the past and present status variables. In the first model, $R^2 = 0.04$, $F(4, 93) = 0.84$, $p = 0.50$, there was a marginally significant main effect for present status, ($B = 0.12$, $t(89) = 1.69$, $p < 0.10$, $sr^2 = 0.03$) such that the non-believers rated present ingroup members more positively than present outgroup members.

For the next analysis, Ingroup Entitativity was included with the past and present status variables. In the first model, $R^2 = 0.04$, $F(4, 94) = 0.84$, $p = 0.50$, the main effect of present status was not significant. Identical analyses were conducted to investigate the Friendship

Rating and Strategy Game dependent measures. None of the main effects of present status were significant.

5.3.2. Hypotheses 2a and 2b

Parallel to the believers in God, none of the past status by present status interactions were significant and therefore hypotheses 2a and 2b were not supported.

5.3.3. Hypothesis 5a: Present ingroup members would be rated more positively and present outgroup members would be rated less positively as ingroup identification increased

For the Positive Rating model, the addition of the 2-way interaction terms significantly changed the model (ΔR^2 = 0.16, p < 0.01). The statistical interaction between present status and Ingroup Identification was significant (B = 0.18, t(89) = 4.06, p < 0.01, sr^2 = 0.15). Given the significant 2-way interaction, I explored the simple effects of Ingroup Identification on Positive Rating within the present status condition. Dummy codes were used such that the ingroup member and outgroup member were coded as 1, 0 (respectively) when comparing the outgroup member condition and 0, 1 (respectively) when comparing the ingroup member condition. Ingroup Identification predicted Positive Rating for the present ingroup members (B = 0.12, t(94) = 2.13, p < 0.04) and for the present outgroup members (B = -0.22, t(94) = -3.62, p < 0.01; see Figure 5.11). Similar to the believers in God, as ingroup identification increased, positive ratings increased for present ingroup members and decreased for present outgroup members.

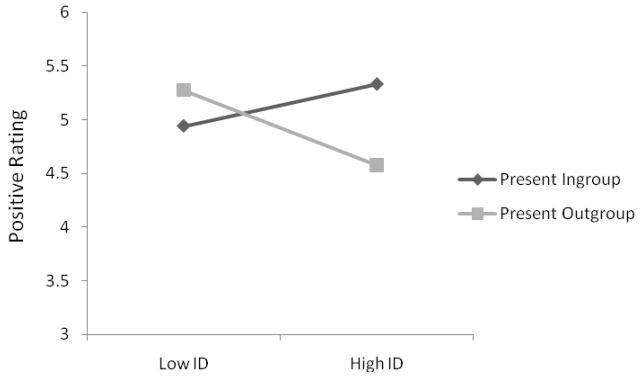

Figure 5.11. Simple slopes of Positive Rating regressed onto Ingroup Identification, as a function of Present Status

For the Friendship Rating model, the addition of the 2-way interaction terms significantly changed the model (ΔR^2 = 0.08, p < 0.04) and the interaction between present status and Ingroup Identification was significant (B = -0.19, t(89) = 2.75, p < 0.01). Given the significant 2-way interaction, I explored the simple effects of Ingroup Identification on Friendship Rating within the present status condition. Ingroup Identification predicted Friendship Rating for the present outgroup members (B = -0.31, t(94) = -3.21, p < 0.01) but not for the present ingroup members (B = 0.01, t(94) = 0.07, p = 0.95; see Figure 5.12). As ingroup identification increased, friendship ratings stayed consistent for present ingroup members and decreased for present outgroup members.

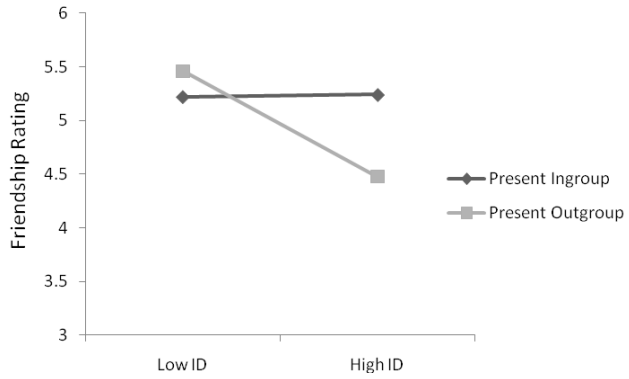

Figure 5.12. Simple slopes of Friendship Rating regressed onto Ingroup Identification, as a function of Present Status

There were no significant present status X ingroup identification interactions using any of the strategy game dependent measures.

5.3.4. Hypothesis 5b: High identifiers, compared to the low identifiers, would respond more negatively to the defectors compared to the outgroup members and more positively to the joiners compared to the ingroup members

For the Positive Rating variable, the 3-way interaction between present status, past status, and ingroup identification was not significant (B = -0.01, t(89) = -0.31, p = 0.76) and the addition of the interaction term did not significantly change the model (ΔR^2 = 0.00, p = 0.76). Although the 3-way interaction was not significant, I explored the hypothesized simple effects of

Ingroup Identification on Positive Rating for past ingroup and outgroup members in the present ingroup and outgroup conditions separately. In the present ingroup condition, Ingroup Identification did not predict Positive Rating for joiners (B = 0.11, t(89) = 1.22, p = 0.23), but was marginally significant for the ingroup members (B = 0.13, t(89) = 1.69, p < 0.10). In the present outgroup condition, Ingroup Identification predicted Positive Rating for outgroup members and defectors (B = -0.27, t(89) = -2.79, p < 0.01 and B = -0.18, t(89) = -2.29, p < 0.03, respectively; see Figure 5.13).

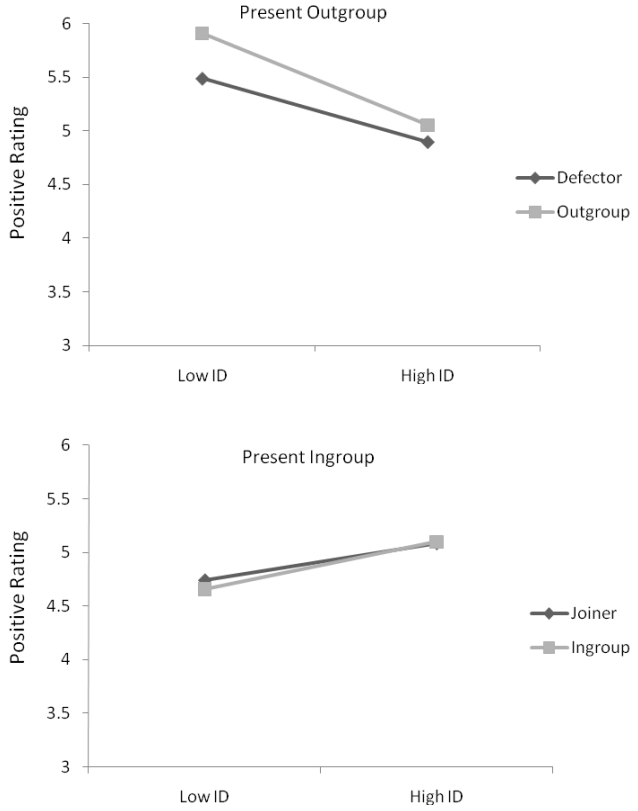

Figure 5.13. Simple slopes of Positive Rating regressed onto Ingroup Identification, as a function of Past Status, for Present Outgroup members (top) and Present Ingroup members (bottom)

The 3-way interaction using Friendship Rating was not significant (B = -0.05, t(89) = -0.77, p = 0.44) and the addition of the interaction term did not significantly change the model

(ΔR^2 = 0.01, p = 0.44). Examining the 3-way interaction, in the present ingroup condition, Ingroup Identification did not predict Friendship Rating for joiners or ingroup members (B = 0.07, t(89) = 0.52, p = 0.61 and B = 0.04, t(89) = 0.26, p = 0.80, respectively). In the present outgroup condition, Ingroup Identification predicted Friendship Rating significantly for outgroup members and marginally significantly for defectors (B = -0.41, t(89) = -3.12, p < 0.01 and B = -0.23, t(89) = -1.67, p = 0.10, respectively; see Figure 5.14). As ingroup identification increased, friendship ratings stayed consistent for present ingroup members (although higher for joiners compared to ingroup members) and decreased for present outgroup members.

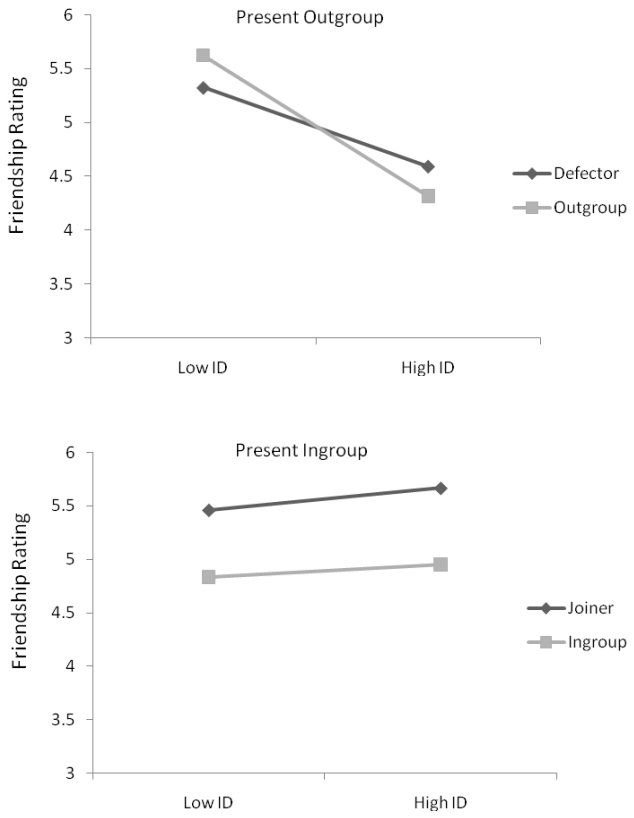

Figure 5.14. Simple slopes of Friendship Rating regressed onto Ingroup Identification, as a function of Past Status, for Present Outgroup members (top) and Present Ingroup members (bottom)

In the first model using the chooser data from the first round and ingroup identification, the addition of the 3-way interaction term significantly changed the model ($\Delta R^2 = 0.04$, $p < 0.05$) and the 3-way interaction was significant ($B = 0.09$, t(88) = 2.01, $p < 0.05$). I investigated the hypothesized simple effects of Ingroup Identification on the chooser data from the first round for past ingroup and outgroup members in the present ingroup and outgroup conditions separately. In the present ingroup condition, Ingroup Identification did not predict the round one chooser data for either ingroup members or joiners ($B = 0.08$, $t(88) = 0.99$, $p = 0.33$, and $B = -0.11$, $t(88) = -1.11$, $p = 0.27$, respectively). In the present outgroup condition, Ingroup Identification did not predict round one chooser data for outgroup members or defectors ($B = 0.15$, $t(88) = 1.44$, $p = 0.16$, and $B = -0.03$, $t(88) = -0.40$, $p = 0.69$, respectively; see Figure 5.15). Similar to that of the believers in God, trust for the outgroup member increased as a function of increasing ingroup identification.

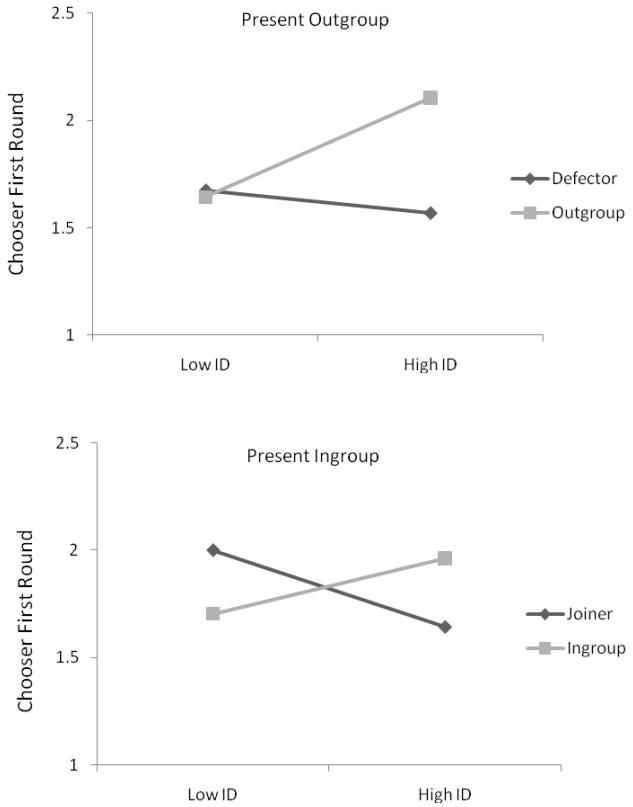

Figure 5.15. Simple slopes of Chooser First Round regressed onto Ingroup Identification, as a function of Past Status, for Present Outgroup members (top) and Present Ingroup members (bottom)

In this model, for the high identifiers, the simple effect of past status was marginally significant for the present outgroup members (defectors and outgroup members; B = -0.27, t(88) = -1.79, p = 0.08), but not for the present ingroup members (joiners and ingroup members; B = 0.16, t(88) = 1.16, p = 0.25). In the low ingroup identification condition, the simple effect of past status was not significant for the present ingroup or outgroup members (B = -0.15, t(88) = -0.95, p = 0.34 and B = 0.02, t(88) = 0.11, p = 0.91; respectively).

5.3.5. Hypothesis 6a: Present ingroup members would be rated more positively and present outgroup members would be rated less positively as ingroup entitativity increased

For the model using Positive Rating, the addition of the 2-way interaction terms did not significantly change the model (ΔR^2 = 0.04, p = 0.28). The interaction between present status

and Ingroup Entitativity was marginally significant (B = 0.10, t(90) = 1.75, p < 0.09). Given the significant 2-way interaction, I explored the simple effects of Ingroup Entitativity on Positive Rating within the present status condition. Ingroup Identification predicted Positive Rating for the present outgroup members (B = -0.28, t(95) = -1.924, p = 0.05) but not for the present ingroup members (B = 0.03, t(95) = 0.37, p = 0.71; see Figure 5.16).

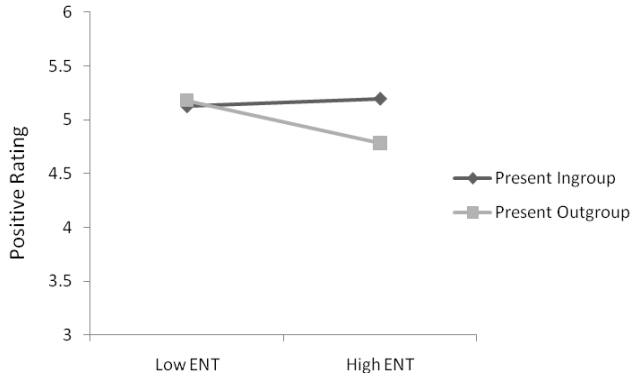

Figure 5.16. Simple slopes of Positive Rating regressed onto Ingroup Entitativity, as a function of Present Status

For the Friendship Rating model, the addition of the 2-way interaction terms significantly changed the model (ΔR^2 = 0.10, p < 0.02) and the interaction between present status and Ingroup Entitativity was significant (B = 0.26, t(90) = 3.06, p < 0.01). I examined the simple effects of Ingroup Entitativity on Friendship Rating within the present status condition. Ingroup Entitativity predicted Friendship Rating for the present outgroup members (B = -0.22, t(93) = -2.91, p < 0.01) but not for the present ingroup members (B = -0.07, t(93) = -0.96, p = 0.34; see Figure 5.17).

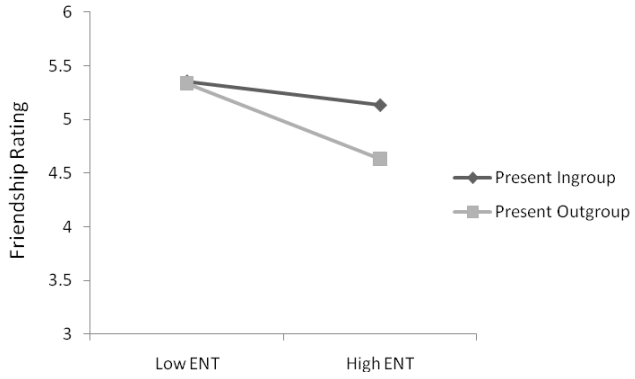

Figure 5.17. Simple slopes of Friendship Rating regressed onto Ingroup Entitativity, as a function of Present Status

For both Positive and Friendship Ratings, as ingroup entitativity increased, the ratings stayed consistent for present ingroup members and decreased for present outgroup members.

5.3.6. Hypothesis 6b: Individuals who viewed their group as highly entitative, compared to those who did not, would rate defectors more negatively than outgroup members and joiners more positively than ingroup members

For the Friendship Rating, the 3-way interaction was not significant (B = 0.00, $t(90)$ = -0.01, p = 0.99) and the addition of the interaction term did not significantly change the model (ΔR^2 = 0.00, p = 0.99). Although it was not significant, I explored the findings. In the present ingroup condition, Ingroup Entitativity did not predict Friendship Rating for joiners or ingroup members (B = -0.10, $t(90)$ = -1.03, p = 0.31 and B = 0.00, $t(90)$ = 0.94, p = 0.94, respectively). In the present outgroup condition, Ingroup Entitativity predicted Friendship Rating for outgroup members (B = -0.24, $t(90)$ = -2.29, p < 0.03) but not for defectors (B = -0.18, $t(90)$ = -1.60, p = 0.12; see Figure 5.18).

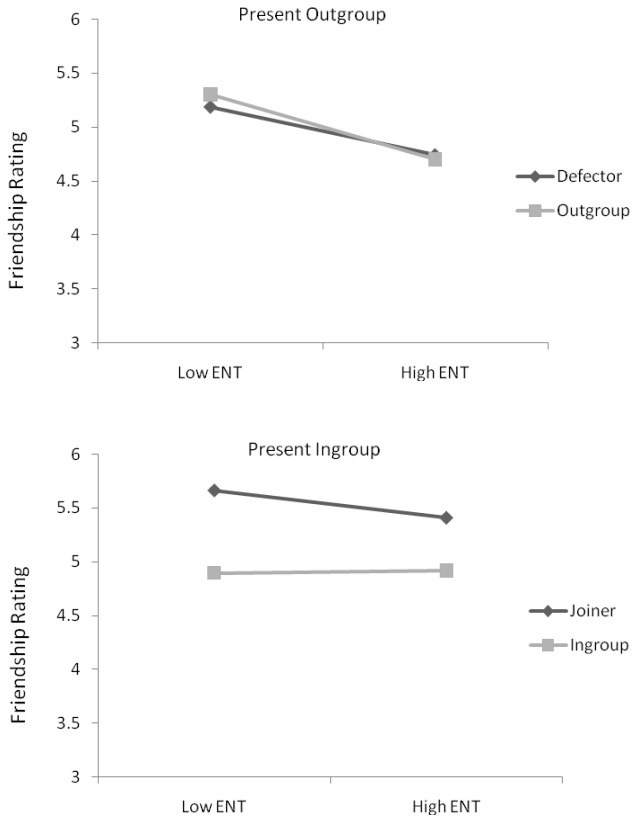

Figure 5.18. Simple slopes of Friendship Rating regressed onto Ingroup Entitativity, as a function of Past Status, for Present Outgroup members (top) and Present Ingroup members (bottom)

CHAPTER 6

ADDITIONAL RESULTS

6.1 Mediation Models

6.1.1. Hypothesis 7a and 7b: Group Image Validation and Expectancy Violation would mediate the link between the target present status and the positive ratings as well as between the simple effects of present status

It was predicted that Group Image Validation (GIV) and Expectancy Violation (EV) would mediate the relationship between the target's present status and Positive Rating. For the believers in God, when investigating the path of present status to Positive Rating, the relationship was found to be highly significant. The relationship between present status and GIV was also significant such that there were higher GIV scores for the ingroup members. The relationship between present status and EV was significant in the opposite direction, such that outgroup members predicted higher EV scores. When present status, GIV, and EV were all entered as predictors of Positive Rating, the mediated effect of present status as a predictor dropped to a non-significant negative value (B = -0.17, p = 0.22; see top of Figure 6.1). When a Sobel test was performed (Preacher & Hayes, 2004), it was found that the decrease was significant for GIV (z = 2.47, $p < 0.02$) and EV (z = 3.39, $p < 0.01$) supporting hypotheses 7a and 7b for the believers in God. When investigating the link between the simple effects and Positive Rating, the mediation was not found to be significant for either GIV or EV.

The same procedure was used to investigate the mediation model in the non-believers in God. The relationship between present status and Positive Rating was non-significant and the addition of the mediator variable did not significantly change it (see bottom of Figure 6.1) which did not support hypotheses 7a and 7b for non-believers in God. Parallel to the believers

in God, the mediation models were also non-significant for the relationships between the simple effects and Positive Rating.

6.1.2. Hypothesis 8a and 8b: The mediation models will differ between Believers in God and Non-believers in God

Given the lack of mediation for the non-believers in God, these hypotheses were not supported.

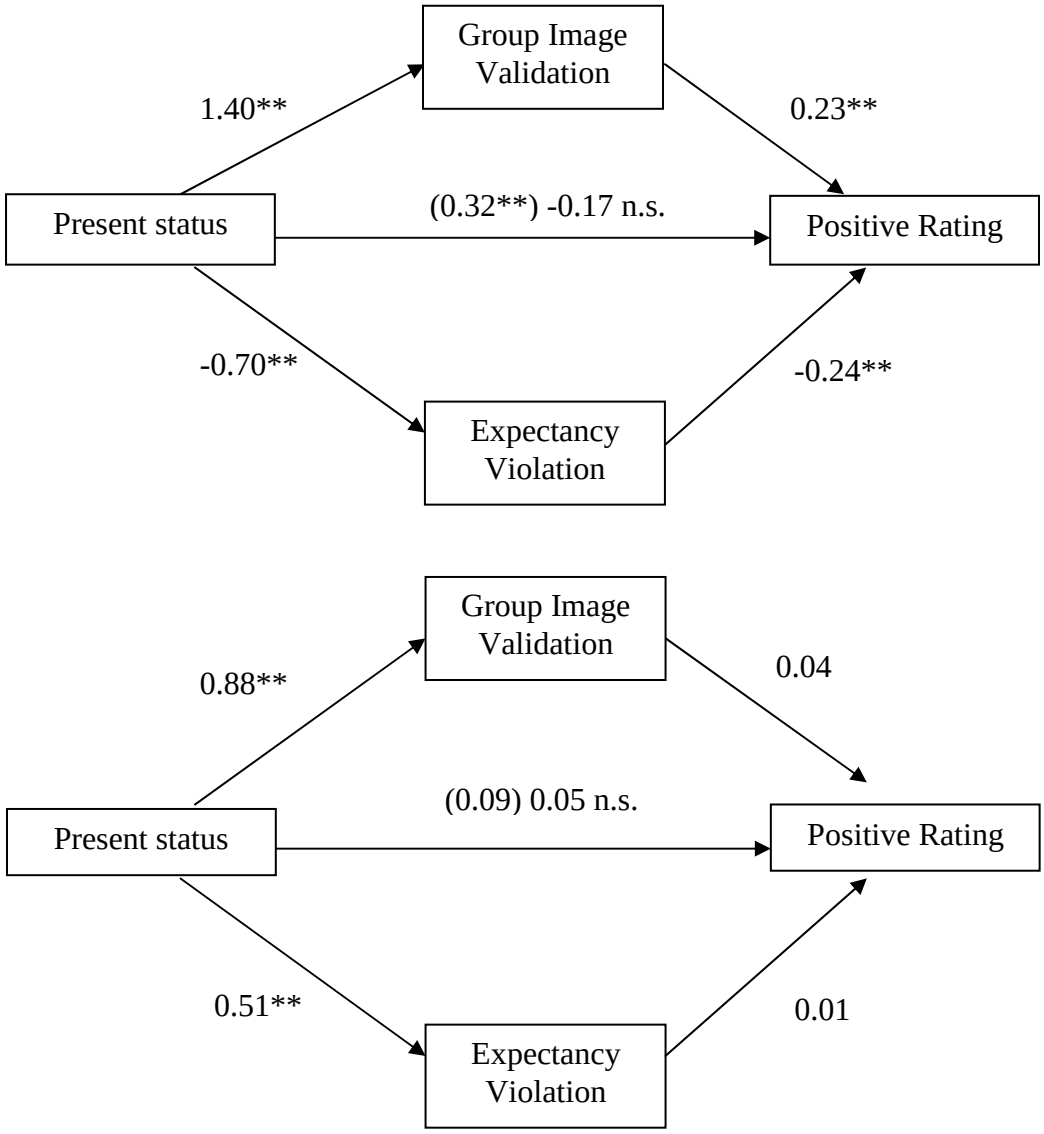

Figure 6.1. Mediation models for Believers in God (top) and Non-Believers in God (bottom)

6.2 Moderated Mediation

Given the significant present status X Ingroup Identification interactions described previously, it was hypothesized that the mediation model may itself be moderated by Ingroup Identification (Preacher, Rucker, & Hayes, 2007). The mediated effect between present status and Positive Rating was hypothesized to differ depending on the level of ingroup identification.

As shown in Table 6.1, this was found to be the case for the believers in God. Mediation of the present status effects only occurred at high and mean, but not low, levels of Ingroup Identification for Group Image Validation. For Expectancy Violation, the mediation was present at low levels, but stronger at the mean and high levels of Ingroup Identification. The mediation model for Group Image Validation and Expectancy Violation remained non-significant regardless of the level of Ingroup Identification for the non-believers in God.

Table 6.1 Moderated Mediation for Believers in God and Non-believers in God

Believers in God			Indirect Effect	Standard Error	z-score	*p*
	GIV	Low ID	0.22	0.18	1.19	0.23
		Mean ID	0.57	0.15	3.96	< 0.01
		High ID	0.99	0.24	4.11	< 0.01
	EV	Low ID	0.15	0.07	2.13	< 0.05
		Mean ID	0.23	0.06	4.14	< 0.01
		High ID	0.32	0.09	3.39	< 0.01

Non-believers in God			Indirect Effect	Standard Error	z-score	*p*
	GIV	Low ID	0.18	0.13	1.36	0.17
		Mean ID	0.08	0.08	1.05	0.30
		High ID	0.00	0.10	0.02	0.98
	EV	Low ID	-0.04	0.04	-0.92	0.36
		Mean ID	-0.02	0.03	-0.50	0.61
		High ID	0.02	0.06	0.39	0.70

CHAPTER 7

MOOD SCALES

7.1 Believers in God

I used regression techniques to examine whether I could predict a change in the positive mood score based on the condition of the participant. The focus was on time 1 (the baseline) and time 2 (directly after filling out the dependent measures) because this is when the participant had just read about the 'other participant's' group status and should be feeling the consequential change in positive mood. In order to examine this change, the second positive mood score was regressed onto the participant's first positive mood score and the standardized residuals were saved to create a positive mood change score.

For the first set of analyses, I regressed the positive mood change score (i.e., the standardized residuals) onto present status, past status, ingroup identification, and all the interactions. There were no significant main effects or interactions. For the second set of analyses, I used Ingroup Entitativity in place of Ingroup Identification. There were also no significant main effects or interactions in this model.

The means and standard deviations of positive mood at each time point are listed above in Table 6. To reiterate, positive mood was measured three times throughout the study, positive rating and friendship rating were measured after reading the manipulations but before time 2, and the strategy game was conducted directly before time 3.

7.1 Non-believers in God

I used the same regression techniques as earlier to examine the positive mood score of the non-believers in God. The means and standard deviations of positive mood at each time point are listed above in Table 8. For the first set of analyses, I regressed the positive mood

change score (i.e., the standardized residuals) onto present status, past status, ingroup identification, and all the interactions. The interaction between present status and ingroup identification was marginally significant (B = 0.12, t(89) = 1.86, p < 0.07, sr^2 = 0.04). Positive mood change predicted Positive Rating for the present ingroup members (B = 0.18, t(89) = 2.0, p < 0.05) but not for the present outgroup members (B = -0.05, t(89) = -0.58, p = 0.56; see Figure 7.1).

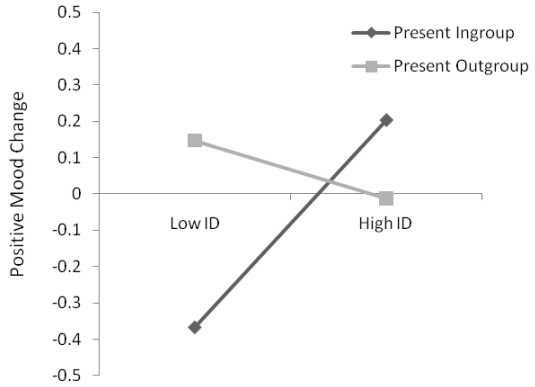

Figure 7.1. Simple slopes of Positive Mood Change regressed onto Ingroup Identification, as a function of Present Status

For the second set of analyses using Ingroup Entitativity, there was a marginally significant interaction between present status and ingroup entitativity for the positive mood score (B = 0.14, t(89) = 1.70, p < 0.10, sr^2 = 0.03). Positive mood change did not predict Positive Rating for the present ingroup members (B = 0.14, t(89) = 1.29, p = 0.20) or the present outgroup members (B = -0.12, t(89) = -1.02, p = 0.31; see Figure 7.2).

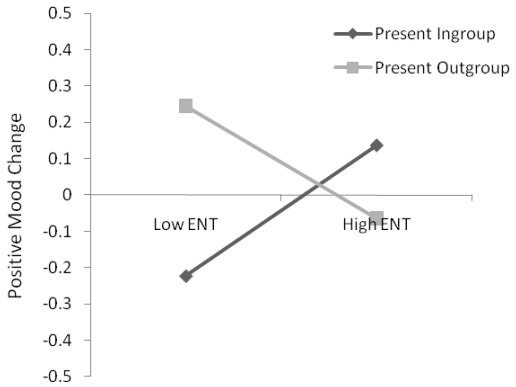

Figure 7.2. Simple slopes of Positive Mood Change regressed onto Ingroup Entitativity, as a function of Present Status

CHAPTER 8

DISCUSSION

8.1 General Discussion

The main premise of this research was to investigate the responses toward individuals based on their group membership status. Past research (Hewstone et al., 2002) has indicated that a categorization effect would be present which was replicated in both samples (believers in God and non-believers in God). My aim was to take this expectation further to examine the novel concept of responses to individuals who had a fluctuating group membership status. I anticipated the categorization effect would be exacerbated by this fluctuation such that ingroup members would be rated more positively if they had recently joined, and outgroup members would be rated more negatively if they recently defected. This expectation received some support and will be discussed further below.

Another novel aspect of this research was to compare believers in God with non-believers in God. Typical research in the religion domain excludes non-believers on the basis that they lack membership in a religious group or that there are relatively few of them to sample. However, I sought to explore whether their group membership in the non-believer category was, indeed, a group membership that would lead to parallel responses to the believer category.

8.2 Theoretical Contributions

Based on research conducted by Hewstone et al. (2002), I anticipated a categorization effect such that participants would rate ingroup members more favorably compared to outgroup members (hypothesis 1). For both believers in God and non-believers in God (marginally), participants rated ingroup members more positively than outgroup members and therefore my expectation was supported. Given that the non-believers in God effect was only marginally

significant, this finding provides some evidence that there may be different group processes based on the group membership. One possible explanation is that non-believers do not have as strong of an attachment to the group (identification scores were lower compared to the believers in God) and that led to the weaker categorization effect.

From there, it was important to disentangle the findings that included ingroup identification. The hypothesis (5a) was based on Social Identity Theory (Tajfel & Turner, 1986), which suggests that the more an individual identifies with a group, the more they will try to protect the group's positive image. Ingroup Identification should therefore intensify the categorization effect. This interaction was the most consistent finding throughout this research. As ingroup identification increased, positive rating and friendship rating trended upward for ingroup members and downward for outgroup members.

As mentioned above, one of the main aims of this research was to explore the effects of fluctuating group membership status. I anticipated that the past status of the target would influence the positivity toward him or her. Furthering the research by Barden and Kenworthy (under review), the current research utilized ingroup members, joiners, defectors, and outgroup members. The prediction was that joiners and defectors would be rated differently than their ingroup member and outgroup member counterparts (hypothesis 2a). Neither sample found unequivocal support for this notion. However, the addition of ingroup identification led to some clarification regarding this (lack of an) effect.

For most of the dependent measures, the 3-way interaction between present status, past status, and ingroup identification was not significant. However, in order to explore the trends of these variables I graphed them and computed the simple effects. For the positive and friendship ratings, ingroup members and joiners had more positivity associated with them as ingroup identification increased, while outgroup members and defectors had less positivity associated with them. The simple effect of ingroup identification for the outgroup member was significant most often (see Figures 8, 10, 13, 14, 18). Participants seemed to view outgroup

members more negatively than defectors, which was surprising. One possible reason for this finding is that the participants may view the defector's group membership as less concrete (i.e., the defector may come back to the group at some point) and therefore the defector was not quite viewed as a fully outgroup member.

Interestingly, that finding differed between the overt measure and the covert behavioral measure. The difference between the ratings for the defector and outgroup member in the strategy game when the participant was a high identifier was significant in the anticipated direction. As ingroup identification increased, participants were significantly (marginally for the non-believers) less inclined to choose a trusting option for defectors compared to outgroup members (see Figures 9, 10, 15). Following the reasoning for the above overt measures, the defector may still be somewhat liked, but given his/her fluid group memberships, the participant did not deem the target as trustworthy during the strategy game.

Another finding where there was a difference between the believers in God and non-believers in God involved the mediation models. Based on Barden and Kenworthy (under review), Group Image Validation was expected to serve as the underlying cause of the differing reactions toward the targets. Ingroup members would be rated more positively and outgroup members would be rated less positively because the targets would be serving as validation or invalidation, respectively, of the group. Expectancy Violation was added such that the participant's expectations regarding the targets would be supported or violated by ingroup members or outgroup members, respectively, which would lead to differing positive reactions. For the believers in God, Group Image Validation did serve as a mediator. This finding corresponded with the research by Barden and Kenworthy because both samples involved individuals who grouped themselves into a category based on a belief in God. Expectancy Violation was also a significant mediator between present status and positive rating. In the population of this sample, believers in God have majority status (approximately 10:1 to non-

believers in God) and therefore it was likely somewhat of a shock to learn that the target was not an ingroup member which led to less positive responses toward the target.

Group Image Validation did not serve as a mediator for the non-believers in God. Given that the non-believers did not seem to view themselves as a cohesive unit (Entitativity scores for Believers in God: $M = 4.89$, $SD = 0.11$ and Non-believers in God: $M = 2.92$, $SD = 0.13$, $F(217) = 131.07$, $p < .01$), this result is not surprising. Rather, a measure addressing individual characteristics such as similarity to the target may have served as a mediator. Expectancy violation was also not a significant mediator. Perhaps this was because they were unaware of their minority status (e.g., they overestimated the amount of non-believers in God) and had equal expectations of the target individual being a believer or non-believer in God.

8.3 Novel Contributions

As stated throughout this paper, this topic of fluid group affiliation and disaffiliation has not been examined systematically in the past. Although the hypotheses were not all supported completely, I argue that the findings are a valid contribution to the field. First, it was established that individuals tend to focus their attention on the present status of the person and somewhat disregard the past status. They focus mainly on whether the person is currently an ingroup or outgroup member and treat him or her accordingly.

Additionally, this research illustrates that the directional trends of the joiner and defector statuses are parallel to the ingroup and outgroup members, respectively. That is, until ingroup identification is examined. The expected differences between the four status conditions are more pronounced when exploring the different levels of identification with the group.

Another novel contribution is the inclusion of non-believers in God. Too often, they are viewed as non-group members rather than members of a group that does not believe in God. Future research should not ignore this group, but instead use them as a valid comparison group to their believers in God counterpart. As noted previously, non-believers in God had significantly lower ingroup identification and entitativity scores compared to believers in God. However, although

lower, the ratings of the non-believers did form a normal distribution, with a number of individuals identifying strongly with a perceived highly entitative group.

Lastly, this research incorporates a variety of dependent measures. There was the overt ratings of the individual (Positive Rating), an overt behavioral measure (Friendship Rating), and a covert behavioral measure (strategy game). Each measure gave important information that, when taken together, gave a more complete picture of the results.

8.4 Limitations and Future Directions

One limitation to the current research is the group category utilized. Although theological belief was deemed worthy for the current research from the pilot work, I would expect stronger results from a category with more distinct boundaries (e.g., a religious denomination, a college major, a fraternity/sorority). Also, a smaller group may be better because group member consistency would be more of an issue. For example, a group of 100 people would be more affected by a joiner or defector compared to a multi-million member group (such as believers in God). I am also interested in investigating a group in which the consequences of joining or defecting are not as far-reaching. In some individuals' opinions, joining or leaving the group 'believers in God' may result in an afterlife in heaven or eternal damnation, respectively.

Another limitation is the sample size. Given the minority status of the non-believers in God, it was difficult to recruit participants for this experiment. A larger sample would have given credence to my conclusions, especially those that compared the non-believers to the believers in God.

A final limitation is the quasi-disregard of the participant's past status. As noted above, approximately half of the non-believers switched their group membership. An interesting extension of this project would be to delve in deeper to examine how the participant's past influences how they respond to the target's who have switched (both ending up as a joiner as well as a defector) and stayed consistently in a group. A measure of similarity may serve as a

moderator such that the more the participant views him or herself as similar to the target, the more positive the target will be rated. I would anticipate that those individuals who have switched in the past would view themselves as more similar to the targets who switched regardless of their current group.

Those are just a few of the many directions that this topic can extend to. It is my hope that researchers will begin to see the validity in this topic and examine it using many different types of groups.

APPENDIX A

PRESCREENING ITEMS

Entitativity items:

1. How likely is it that other individuals would see my group (Believers in God or Non-Believers in God) as a distinct entity/group?
2. How important is this group membership to YOU?
3. How important do you think this group membership is to other fellow group members?
4. How much interaction is there among your group's members?
5. How likely is it that members of your group have goals that they are working toward together?
6. How likely is it that members of your group have common outcomes? In other words, to what degree do the outcomes of one group member affect fellow group members?
7. How similar to each other are members of your group (Believers in God or Non-Believers in God)?

Ingroup Identification Items:

1. Belonging to this group (Believers in God or Non-Believers in God) is an important reflection of who I am.
2. Belonging to this group (Believers in God or Non-Believers in God) is an important part of my self-image
3. Belonging to this group (Believers in God or Non-Believers in God) is central to my sense of who I am.
4. I feel strong ties to others members of my group (Believers in God or Non-Believers in God).
5. I identify with other members of my group (Believers in God or Non-Believers in God).
6. I like belonging to my group (Believers in God or Non-Believers in God).

APPENDIX B

POSITIVE AND NEGATIVE AFFECT SCALE (PANAS)

The scale consists of a number of words that describe different feelings and emotions. Read each item and then circle the appropriate number that describes how you feel at this moment.

	Very slightly or not at all	A little	Moderately	Quite a bit	Extremely
interested	1	2	3	4	5
distressed	1	2	3	4	5
excited	1	2	3	4	5
upset	1	2	3	4	5
strong	1	2	3	4	5
guilty	1	2	3	4	5
scared	1	2	3	4	5
hostile	1	2	3	4	5
enthusiastic	1	2	3	4	5
proud	1	2	3	4	5
irritable	1	2	3	4	5
alert	1	2	3	4	5
ashamed	1	2	3	4	5
inspired	1	2	3	4	5
nervous	1	2	3	4	5
determined	1	2	3	4	5
attentive	1	2	3	4	5
jittery	1	2	3	4	5
active	1	2	3	4	5
afraid	1	2	3	4	5

APPENDIX C

QUESTIONNAIRE

Individuals tend to categorize themselves in many different groups. Generally speaking, most people can categorize themselves into the group **Believers in God** or **Non-Believers in God** when it comes to theological belief. This study will be investigating interactions between members of these two groups. In this study, some participants will interact with someone who belongs to the same group, and others will interact with someone from the other group. Please answer the following questions regarding your personal membership in either of these groups.

Growing up (ages 12-18 years old), which group would you have categorized yourself into? (circle one)

Believers in God Non-Believers in God

Currently, which group would you categorize yourself into? (circle one)

Believers in God Non-Believers in God

Please use the following space for any clarification regarding your answers above.

_____

_____

_____

_____

_____

_____

APPENDIX D

MANIPULATION CHECK AND MEDIATION ITEMS

At the present time, which group would ***you*** categorize yourself into? (circle one)

Believers in God Non-Believers in God

At the present time, which group would ***your fellow participant*** categorize him/herself into? (circle one)

Believers in God Non-Believers in God

Has ***your fellow participant*** always categorized him/herself into this group? (circle one)

Yes No

The following questions will ask you about how your fellow participant makes you think and feel about the group you categorize yourself into (**Believers in God** or **Non-Believers in God**). For each item, pick a response that represents your best guess about your fellow participant.

After learning about this person…

		Strongly Agree	**Agree**	**Moderately Agree**	**Neutral**	**Moderately Disagree**	**Disagree**	**Strongly Disagree**
1.	**This person demonstrates the correctness of my group's views and ideals.**	□	□	□	□	□	□	□
2.	**This person is a good reflection of who we are as a group.**	□	□	□	□	□	□	□
3.	**This person strengthens the image of my group.**	□	□	□	□	□	□	□
4.	**This person makes my group look bad.**	□	□	□	□	□	□	□
5.	**I was not surprised when I read about this person's present group membership.**	□	□	□	□	□	□	□
6.	**This person seems to be the ideal group member.**	□	□	□	□	□	□	□
7.	**This person's present group membership was consistent with my expectation.**	□	□	□	□	□	□	□
8.	**This person makes my group look good.**	□	□	□	□	□	□	□
9.	**This person is a good reflection of what group members are like.**	□	□	□	□	□	□	□
10.	**This person violated my expectations of the group he/she would belong to.**	□	□	□	□	□	□	□
11.	**This person has a lot in common with most members of my group.**	□	□	□	□	□	□	□
12.	**This person demonstrates the value of my group.**	□	□	□	□	□	□	□
13.	**I was surprised when I read about this person's present group membership.**	□	□	□	□	□	□	□

APPENDIX E

POSITIVE RATING AND FRIENDSHIP RATING ITEMS

Based on the information you just learned about your fellow participant, please **circle the number** representing where you think he or she would fall on the following dimensions.

	Not at all			Somewhat			Very Much
Warm	1	2	3	4	5	6	7
Competent	1	2	3	4	5	6	7
Good-Natured	1	2	3	4	5	6	7
Capable	1	2	3	4	5	6	7
Unintelligent	1	2	3	4	5	6	7
Friendly	1	2	3	4	5	6	7
Efficient	1	2	3	4	5	6	7
Well-intentioned	1	2	3	4	5	6	7
Skillful	1	2	3	4	5	6	7
Untrustworthy	1	2	3	4	5	6	7
Confident	1	2	3	4	5	6	7

What is the likelihood that I would:

	Not at all likely			Somewhat Likely			Very Likely
Try to become friends with this person	1	2	3	4	5	6	7
Study with this person if he or she asked	1	2	3	4	5	6	7
Talk to this person in class	1	2	3	4	5	6	7
Spend time getting to know this person	1	2	3	4	5	6	7
Avoid this person	1	2	3	4	5	6	7
Be interested in what this person has to say	1	2	3	4	5	6	7
Get to know this person after the study is over	1	2	3	4	5	6	7

APPENDIX F

STRATEGY GAME INSTRUCTIONS

Instructions for the computer game:

You will now play a strategy game with your fellow participant.

For this game, you will alternate between 2 roles for 12 rounds of the game. You will be the 'chooser' for 6 rounds and the 'divider' for 6 rounds in a randomized order. You will be given feedback regarding which choice the other participant chose and how he/she divided the points for each trial after every 4 trials of the game.

The **'CHOOSER'** role allows you to choose the point structure utilized, and the **'DIVIDER'** role allows you to decide how the chosen points will be divided.

The purpose is to earn as many points as you can. Remember, you will be given feedback after every 4 trials, but you will be kept anonymous.

CHOOSER: You will choose whether you and your fellow participant will:

a) Each earn 60 points and your fellow participant (the 'divider') will be given the power to divide 200 points however he/she chooses

b) Each earn 100 points and your fellow participant (the 'divider') will be given the power to divide 80 points however he/she chooses.

DIVIDER: Your fellow participant will make the choice above and you will be asked to divide the points. You will not be told whether you will be dividing 200 or 80 points, thus you will choose a percentage of the total amount that will go to you (with the remaining percentage going to your fellow participant).

Only the experimenter will know how each participant responds even after the study has concluded.

After all 12 rounds are finished, the game is over.

APPENDIX G

STRATEGY GAME SETUP

	Participant's Role	Feedback regarding the choices/point division by the other participant
Trial 1	Chooser	
Trial 2	Chooser	
Trial 3	Divider	
Trial 4	Divider	
		Trial 1: allotted 50% to him/herself
		Trial 2: allotted 60% to him/herself
		Trial 3: picked Choice A with a guaranteed 60 points to each player
		Trial 4: picked Choice A with a guaranteed 60 points to each player
Trial 5	Chooser	
Trial 6	Divider	
Trial 7	Chooser	
Trial 8	Chooser	
		Trial 5: allotted 50% to him/herself
		Trial 6: picked Choice B with a guaranteed 100 points to each player
		Trial 7: allotted 60% to him/herself
		Trial 8: allotted 50% to him/herself
Trial 9	Divider	
Trial 10	Chooser	
Trial 11	Divider	
Trial 12	Divider	
		Trial 9: picked Choice A with a guaranteed 60 points to each player
		Trial 10: allotted 50% to him/herself
		Trial 11: picked Choice A with a guaranteed 60 points to each player
		Trial 12: picked Choice A with a guaranteed 60 points to each player

APPENDIX H

“QUALITY CONTROL” (SUSPICION PROBE)

Quality Control for Research in the Psychology Department

1. How many of the following types of studies have you participated in (not counting this one):

   In-person studies _____

   Online studies (including the prescreening) _____

2. What was this particular study about?

3. Were you given a consent document? (circle one) Yes No

4. Would you have changed anything about this study?

5. Were you uncomfortable at any time? (Yes/No) _____ If yes, please explain:

6. Were you suspicious at any time? (Yes/No) _____ If yes, please explain:

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BIOGRAPHICAL INFORMATION

Melisa earned her BA in Psychology from Niagara University in 2005. She then went on to join Dr. Kenworthy's lab at the University of Texas at Arlington. She earned her MS in Experimental Psychology in 2008 and her PhD in Psychology in 2010. Starting in the Fall of 2010, she will be joining the faculty of Walsh University in North Canton, Ohio as a tenure-track Assistant Professor.