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Conflict and threat between pre-existing groups: An application of identity to bias, persuasion and belief perseverance

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CONFLICT AND THREAT BETWEEN PRE-EXISTING GROUPS: AN APPLICATION OF IDENTITY TO BIAS, PERSUASION AND BELIEF PERSEVERANCE

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DISSERTATION

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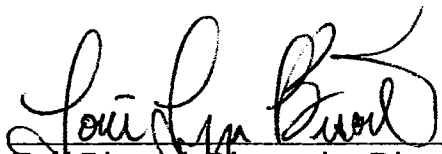

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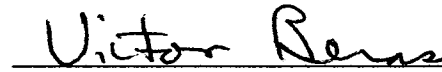

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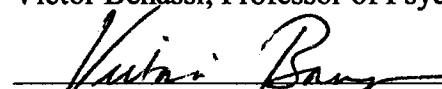

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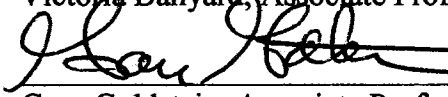

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DEDICATION

The author wishes to primarily dedicate this dissertation to his wife, Alexa Laythe, whose patience, love, and support in daily life contributed as much to this dissertation as I did. The author also wishes to dedicate this document to a long time friend, Benjamin Jones, his grandmother, Helen Kirtley, and his parents, Robert and Marie Laythe, all of whom have walked with me for many years through many storms and troubles. My deepest gratitude goes to you all.

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ABSTRACT

CONFLICT AND THREAT BETWEEN PRE-EXISTING GROUPS: AN APPLICATION OF IDENTITY TO BIAS, PERSUASION AND BELIEF PERSEVERANCE

by

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The current research examines the role of identity in the context of threat towards further understanding bias, persuasion, and belief perseverance in what is defined as IRT (Immediately Relevant Threat) conditions. Using pre, middle, and post measurements, four groups of differing ideological student organizations across 4 university or college campuses were presented critical messages that were varied by the source being either an in-group or out-group presenter of the message. Messages were also varied by either presenting a message that criticized the entire group or only a few of its members. With the use of hierarchical linear modeling and conventional ordinary least square statistics, results indicated general and specific effects of source of the message and the inclusiveness of criticism towards predicting bias, persuasion, and belief perseverance in environmental settings. Findings and their practical applications are discussed.

CHAPTER I

INTRODUCTION

Imagine a coffee shop scenario where you witness two different social clubs meeting over a recent issue that has occurred between them. Although polite at first, as time passes you can see that things are not going well. Voices raise in harsh criticism of past behavior, fists pound into the table, personal attacks are made, and suddenly the two groups rise from the table and quickly go their separate ways. When you go over to ask one of the conversants what went wrong, his simple reply is, "We didn't see things the same way; we were right, and they were wrong." This scenario explained from social identity (Tajfel & Turner, 1979) or self- categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) would suggest that hostility between groups is a result of the personal relevance of the situation to each group's sense of identity. More specifically, each group's sense of social identity (i.e., the sense-of-self derived from group membership) was threatened. In order to maintain a positive group image and group identity, each group engaged in derogation of each other (Haslam & Wilson, 2000; Haslam, Oakes, Reynolds, & Turner, 1999; Tajfel & Turner, 1979; Turner et al., 1987). The above scenario is a description of a realistic conflict situation, as opposed to early conclusions derived from social identity, which represent findings from a laboratory employing a variant of the minimal group paradigm (MGP; Brewer, 1979; Tajfel, Billig, Bundy, & Flament, 1971). MGP was a laboratory design that created artificial in-groups

(i.e., the group to which a participant belongs) and out-groups (i.e., the group to which the participant does not belong) while controlling for environmental factors that usually provide cues to an individual's group membership. Because environmental group cues were not present, the random assignment to a particular group represented the only cue from which participants derived group identity (Bourhis, Sachdev, & Gagnon, 1994; Tajfel et al., 1971). The results of these studies demonstrated significant in-group bias in minimal conditions, supporting a theory that in-group bias requires little environmental context (Brewer, 1979; Tajfel et al., 1971).

Subsequent examinations of social identity from a self-categorization perspective (Turner et al., 1987) have examined group membership with less stringent conditions than MGP, generally allowing the social cues for which MGP controls. More specifically, researchers allow for group categorizations such as nationality, gender, or school membership (Haslam, Oakes, Turner, & McGarty, 1995; Oakes, Turner, & Haslam, 1991) to examine in-group bias. Likewise, other researchers have examined groups with specific ideologies and agendas (Crisp , Hewstone & Cairns, 2001; Islam & Hewstone, 1993), but these examinations represent broad religious groups, such as Islam, or broad conceptions of the Hindu faith. None of these identity studies or previous MGP studies necessarily represent the natural association between an individual and a *personally chosen* membership group, such as a club or professional organization. Previous researchers have not examined the influence of social identity within a realistic and immediately relevant threat condition (e.g. Immediate and Relevant Threat, IRT). In other words, bias and evaluations of threat messages have not been examined when (a) in-group beliefs are based on personally and previously chosen participant membership,

(b) the nature of a presented message directly criticizes the personal behavior of a target group, increasing relevance, and (c) the evaluation and consequence of a presented message are immediate.

Personally chosen groups differ radically from laboratory MGP groups in that the latter often uses a token or monetary exchange to determine favoritism (Brewer, 1979). Similarly, personally chosen groups are more specific than the broad categorizations such as gender or nationality that represent large inclusive group membership. Personally chosen groups often contain a specific set of ideals, norms, and morays that promote a specific view of the world, a specific agenda, and specific expectations of behaviors. In addition, most voluntary groups contain members who have invested time and effort in their activities, and in turn are more committed to these groups (Branscome, Ellemers, Spears, & Doosje, 1999). It is the voluntary investment in a particular group with specific norms and beliefs that likely represent a more realistic situation occurring in our social environment.

Similarly, messages that directly criticize the behavior of target groups are in stark contrast to previous research. For instance, previous research has examined in-group and out-group stances on messages of tangential importance (e.g., the right to die for terminally ill patients, Mackie, Gastardo-Conaco, & Skelly, 1992; or road-safety McGarty, Haslam, Hutchinson, & Turner, 1994), but do not explicitly examine direct threat towards the *good standing* or *good behavior* of a group. This negative threat message is much more direct and personally relevant to a participant within a group because the message impinges upon the reputation and standing of the group in question. As such, the personal applicability of a threat message as described above, aside from

being woefully more typical in genuine group conflicts, provides immediate relevance towards evaluating and determining the potential consequences of a message.

Finally, a message criticizing group behavior presented by another group of similar standing provides immediate conflict and potential threat that, in theory, has short-term consequences. For example, Van Knippenberg, Lossie, and Wilke, (1994) studied advocacy versus non-advocacy of exams for college graduating seniors. The consequences of advocating or not advocating for these exams would not affect the participants for several months to several years. In contrast, by providing an immediate and relevant threat, individuals within organizations are forced to immediately contemplate the validity of the threat and understand that responses will have subsequent short term consequences.

In essence, these conditions of an IRT scenario have not been thoroughly examined by researchers interested in social identity and bias. The aim of the current research is to examine realistic personal group interaction when the nature of the interaction involves threat (i.e., negative appraisals of an in-group from another group). We hope to explore two general avenues of research that are related to an IRT condition. First, we wish to generally examine the effect of differing group ideologies towards the inhibition or promotion of bias. Specifically, we are interested in whether or not particular ideologies (e.g., norms, beliefs, and accepted behaviors towards others) promote differing degrees of bias and the ways in which threat messages are processed. Second, we examine the role of in-group and out-group differentiation created within relevant and personal threat, as well as the bias that is likely to result from predictions postulated by self-categorization theory (Turner et al., 1987; Turner, 1975). We will also

examine the relation of identity in regards to persuasion (McGarty, et al., 1994) within IRT conditions, not only in the ability of negative messaging to change in-group attitudes, but also in terms of how in-groups process negative messages. We will examine the persistence of in-groups' beliefs about their own group when presented with a counter-attitudinal personally relevant message. Additionally, we examine the bias that may persist as a result of the initial assessments an in-group makes towards an out-group.

Theoretical Background: Personal and Social Identity

Social Identity Theory

Two of the most prominently studied areas of human behavior involves the influence of the group upon the individual and how groups interact with each other. Early studies on group conflict between boys at summer camp (Sherif, 1956), in-groups and out-groups as the cause of prejudice (Allport, 1954), and group conformity effects (Asch, 1955) demonstrate the power of a group towards both conformity and prejudice. Henri Tajfel built upon these classic studies and subsequently presented a body of research to which later developed as social identity theory (Tajfel & Turner, 1979; See Hogg & Abrams, 1999, for a historical review). Social identity theory (SIT) is a series of premises maintaining that our sense of self and behavior is partially derived from the collective self (Hogg & Williams, 2000). More specifically, our affiliation with social groups partially dictates our sense of self and our behavior towards other groups. These social affiliations correspond to our *social identity*, the parts of the self dependent upon social group context and affiliation. Conversely, SIT also proposes the construct of *personal identity*, a sense of self derived from personal qualities and interpersonal relationships (Hogg & Abrams, 1999).

According to SIT, the motivational component of in-group/out-group classification is to maintain positive social identity that in turn promotes positive self-image (Tajfel, 1981). It is assumed that social categories (e.g., nationality or ethnicity, club membership, political or religious affiliations) provide a partial definition of whom one is by providing behavioral, attitudinal, and evaluational norms (Haslam et al., 1999). Because group memberships help to foster a positive self image, the evaluations of other groups are often less favorable than evaluations of the group to which an individual belongs (Brewer, 1979; Hogg et al., 1995; Tajfel et al., 1971; Tajfel & Turner, 1979). In sum, SIT postulates that in-group bias occurs because people wish to maintain a positive sense of self.

Self-Categorization Theory

Self-categorization theory (SCT; Turner et al., 1987) is a further development of SIT that expands on the cognitive process of self-categorization. SCT places emphasis upon the process whereby judgments are made of the similarity of the group to which an individual belongs in comparison to the differences of characteristics of another group (Hogg et al., 1995; Turner, 1975). This comparison process provides an explanation of when personal or group identity is relevant in social situations. According to Turner et al. (1987), the process of comparison of the similarities and differences between groups results in *depersonalization*, or the tendency to abandon a personal sense of self in order to view the self as prototypically similar to other members of the group. This depersonalization accentuates salient group identity (Hogg, Turner, & Davidson, 1990; Turner et al., 1987; Turner, 1975; Turner, 1999). Thus, situations that are relevant to group comparison result in individuals engaging their group identity, whereas situations

that do not provoke group comparison do not result in individuals engaging in group identity. The above statement reflects the *salience* of the situation, or relevance of any given situation for group identity. As situations vary within the social world, salience of a group identity must also be examined in the environment. That is, in some situations, a particular group membership may be an important factor in defining the self, but in other cases it may not be as relevant (see Lorenzi-Cioldi, 1991, and Hogg & Turner, 1987, for examples). Thus, SCT proposes that in-group/out-group formation is not static, but unfolds in a situation-to-situation basis (Hogg et al., 1995; Turner, 1999).

Because salience is a crucial mechanism of SCT, the cognitive processes that induce salience are important to understanding the theory. SCT explains the function of salience within the context of normative and comparative fit (Haslam & Turner, 1992; Hogg & Turner, 1987; Oakes & Turner, 1986). With comparative fit, salience varies as a function of the comparison and relevance of the situation in terms of an appropriate comparison group (or groups). That is, group comparison is examined in the context of having other relevant groups against which to compare (Haslam & Turner, 1992). Essentially, in-group and out-group formation will occur when the differences between the in-group and the targeted out-group are greater than the differences between other additional out-groups (Haslam & Turner, 1992). For example, changing the number and kind of countries to which Australian participants compared America resulted in different degrees of stereotypic traits. Specifically, Australians were biased towards Americans when Americans were the only other group against which to compare. In contrast, when other countries with very *dissimilar* characteristics from Australians were also present to

compare, Americans were not seen as negatively (Haslam, Turner, Oakes, McGarty, & Hayes, 1992; see also Haslam et al., 1995 for a similar experiment).

In contrast to comparative fit, normative fit represents the similarity or difference between a group's category specific beliefs and assumptions, in addition to the actual data presented. In other words, do the beliefs held about a specific group match the observed behavior of the other group? For example, researchers examining normative fit have shown that contrary behavior from the expected group norm produces differences in participants' attributions of that behavior. Behaviors are attributed as situational when expected out-group behavior contradicts previous expectations, whereas behaviors are attributed as personal when out-group behavior supports previous expectations (Oakes et al., 1991). More importantly, behaviors that are contrary to in-group beliefs inhibit their perception of a conglomerate of individuals as a group. In the same study by Oakes et al. (1991), an observer's perception of group differentiation by sex role was highest when groups of men were disagreeing with groups of women on a particular issue. In contrast, perceived group differentiation was significantly less when members within the group disagreed with each other.

In summation, SIT and SCT postulate a global theory for explaining group differentiation. SIT mandates that group identity is important because it provides a sense of worth to individuals. Because that sense of worth is important to an individual's self-esteem, preferential treatment is given to groups to which we belong, whereas out-groups may receive derogation in order to protect the group that provides us with worth. SCT elaborates on the conditions of group differentiation. Using comparative and normative fit, group identity is relevant only when there is meaningful contrast (i.e., salience)

between a group identity and an appropriate group(s) against which to compare. When group membership is not relevant in an environmental situation, depersonalization and group differentiation does not occur. Conversely, when a situation involves the status of a group in context to other groups, these factors do occur and bias can result.

Social Identity, Threat, and Salience Within an Ecologically Valid Setting

The current study examines the role of identity and the consequences of threat within a realistic setting. Additionally, I examine several components and consequences of threat in order to provide comprehensive findings with realistic social conflict. The first section examines a general question that overlies our specific examination of bias, persuasion, and belief persistence with regards to threat messages. Specifically, in what way, if any, do pre-existing groups with personally chosen membership and pre-existing ideologies and norms inhibit or promote bias in the context of SIT and SCT theories? The essential goal of this question is to determine if groups of individuals who exhibit specific beliefs, norms, attitudes, and biases will generally confound the principals of salient contrast and subsequent ratings on bias and persuasion variables or if social identity is a general mechanism to which all groups, regardless of specific ideologies, are subject.

Subsequent sections in the manuscript address the specific expected outcomes of differing degrees of salient contrast towards specific bias and persuasion variables in the context of threat. First, in-group bias will be examined as a result of threat. Second, attitude change in situations involving conflict between targeted in-groups and a perceived representative from another group will be addressed. Specifically, we will examine the persuasive effects of a threat message and various ways that salience and

group identity might alter how a personally relevant threat message is processed. In addition to these factors, we address how in-groups may maintain bias, even after the initial message that created bias has been recanted.

Regardless of the specific consequence of threat and conflict that we examine, group identity in respect to these variables dictates salience as the important mechanism (Turner et al., 1987; Turner, 1999). In subsequent sections, we postulate that conditions that alter the salience between groups not only exacerbate or lessen bias, but might also apply to persuasion and belief perseverance, under the assumption that IRT conditions do not represent a unique condition in which salience mechanisms may respond differently. As research of this specific nature has not been previously conducted, it may be the case that previously researched mechanisms of salience may produce different outcomes due to IRT conditions. For instance, it may be the case that numerous environmental factors associated with "live" confrontation and criticism, normally avoided in laboratory studies, may confound or provide different mechanisms by which salience operates. However, by assuming that previous research regarding salient contrast and bias applies to IRT conditions, a comparison can be conducted between previous research and the current study.

To that extent, we propose four specific factors, including group ideological membership, identity, source of the message, and the degree that a message applies to the number of members in a group that hypothetically contribute to our three areas of interest. First, we examine a more abstract influence of salience by exploring the possibility that group ideologies and norms may influence how an individual responds to a threat message. Second, salience of a threat situation is hypothesized to be altered by

the perceived group affiliation from which the threat comes. Specifically, threat presented by a perceived in-group member should produce different outcomes than threat presented by a perceived out-group member. Third, salience will differ in regards to the degree of inclusiveness that the threat represents to the group. That is, threats that target a few members of a group will produce different outcomes than threats that target the entire group. Fourth, salience of a threat situation will differ depending on the amount of personally invested identity with a particular group.

Ideological Differences as Precursors of Bias and Persuasion

When voluntary social groups are examined, it allows the opportunity to explore a frequently neglected factor in social identity research. Although multiple researchers have examined nationalities or group differences and the subsequent role of norms with in-group bias, few researchers have examined the specific, pre-existing, and personally chosen groups represented in an IRT scenario. Research using MGP makes ideology irrelevant as the tendency to accentuate group differences was created within the context of newly created, non-invested groups (see Brewer, 1979, for a review). Likewise, researchers who examine groups within the context of other groups use non-voluntary identity aspects such as gender (Oakes et al., 1991) or nationality (Haslam et al., 1995). Although the above studies do represent global social groups, we suggest that membership in groups such as gender or nationality represent a greater degree of *abstraction*, or broader categorization (Turner et al., 1987) of group identity compared to groups whose memberships represent a personal choice.

In order to examine ideology as a potential factor of identity and bias, additional theorizing is necessary to justify its place within self-categorization theory. The idea that

ideology might influence the degree of bias created is dependent on differences between *norms* (i.e., the shared beliefs, behaviors, and features of a group) and how norms dictate in-group/out-group interaction. The fundamental process with self-categorization involves a processing of the norms of a given group. For instance, the process of comparative and normative fit (Haslam & Turner, 1992) involves the comparison of the common beliefs, behaviors, and features of an in-group compared to the expected common beliefs, behaviors, and features of an out-group. In other words, individuals who perceive themselves as similar to a potential group evaluate that similarity on the perceived norms of the group in question. Applied to group interaction, it follows that norms not only exist for beliefs about acceptable behavior within the in-group, but also exist for dictating interaction with out-groups. These norms that dictate behavior towards out-group members may be important within the context of how group belief and ideology are expressed and promoted.

However, can differing norms and beliefs exacerbate or reduce negative feelings towards groups who are similar or different from a group receiving a threat message? Research suggests that the answer is yes, but several important caveats should be considered. With regards to the group norms and influencing bias, the context of social identity research demonstrates that group held norms dictate interaction with out-groups and in-group bias. Jetten, Spears, & Manstead (1996) demonstrated that in-group norms such as fairness versus discrimination altered the degree of bias produced in a classical Tajfel allocation task. Specifically, after groups were labeled as *detail perceivers* they performed a money allocation task to either *detail perceivers* or *global perceivers*. Fairness and discrimination were manipulated by informing participants that 10 of the 15

detail perceivers distributed money equally (fairness condition) or distributed money predominantly to themselves. Results within this MGP variant demonstrated that groups that had fairness as an in-group norm were significantly less biased in allocation, whereas the greatest amount of bias occurred with in-group prejudice norms (but also see Jost & Ross, 1999, for similar findings).

Although these findings demonstrate that group norms can influence bias, it is also important to note that the theoretical principals of SCT propose that salient contrast is an environmentally specific function (Turner et al., 1987). As such, salient contrast and the principals of SIT should generally dictate bias and prejudice on a situation to situation basis, and pre-existing entrenched individual group attitudes are *only* predictive of bias within these contrast conditions. For instance, Haslam and colleagues (1992) showed that in-group bias was dependent on other groups that were considered more or less favorable when determining bias towards a specific group. This theoretical assumption is also strengthened by research showing that stereotype consensus within a group and applicability of stereotype beliefs contribute to in-group bias and favoritism (Haslam et al., 1996, Haslam et al., 1999; Haslam & Wilson, 2000). Essentially, group norms do influence bias, but are heavily influenced by categorical relevance, salient contrast, and the universality of those norms.

The above findings establish the role of norms towards explaining intra-group differentiation, but do not necessarily address attitudinal approaches towards bias. As an example, attitudes and traits such as right-wing authoritarianism (Altemeyer, 1981; 1988) or social dominance orientation (Pratto, Sidanius, Stallworth, & Malle, 1994) have been associated with prejudice and are expected to predict prejudice and bias on an individual

level, but not as a function of relevant group-contrast. Specifically, research regarding social dominance orientation has been recently debated in social identity. Researchers supporting a social dominance theory suggest that attitudes are pre-extant to salient contrast (Sidanius & Pratto, 1999), whereas SCT researchers support the mechanism of salient contrast as a precursor to attitudinal biases (Turner & Reynolds, 2003). Researchers examining this question have shown that in particular (at least with SDO), a relationship between bias and social dominance does not occur when identity with a particular group is not invoked, but does relate when individuals are provided contrast in terms of identity groups (Schmitt, Branscombe, & Kappen, 2003, Wilson & Liu, 2003, but also see Haslam & Wilson, 2000). Thus, the overall answer to this debate suggests that pre-existing attitude traits are predictive of prejudice and bias, but only when participants are cognitively made aware of themselves verses others.

In context of the current study, we wish to explore the possibility that within salient contrast between groups, as IRT should create, pre-existing and group specific held beliefs and norms may potentially influence bias. In other words, do norms representing different group beliefs inherently contain more of a disposition for hostility or bias towards similar and different groups? For example, is it the case that two groups with very differing ideologies (i.e., a fraternity compared to a Christian religious group) when presented with the exact same threat message, will report different degrees of bias *because* of inherent norms and beliefs of a particular organization?

The answer to this question provides one of two potentially interesting outcomes in the context of SCT and salient contrast. Should a lack of differences between differing ideologies (e.g., advocacy groups as opposed to religious groups) occur, then these

findings would further support the current understanding of SCT, in the sense that *regardless of specific ideological norms*, bias and evaluation of threatening groups are general social functions of salient contrast and the maintenance of self-esteem of its group members (e.g. Turner et al., 1987, Tajfel & Turner, 1979). Similarly, these findings would also support the conception of previous research between religion and prejudice that suggests it is not the specific beliefs themselves that contribute to prejudice, but rather the militant way in which beliefs are held and maintained (Laythe, Finkel, & Kirkpatrick, 2001; Laythe, Finkel, Bringle, & Kirkpatrick, 2002). In other words, the specific ideology does not seem to dictate prejudice, but a need to maintain and enforce these beliefs do. In contrast, should differences in bias and persuasion occur due to differing types of groups, results would lend more specific support to a "triggered trait theory" as demonstrated by Schmitt et al. (2003) and Wilson and Liu (2003). In essence, specific norms or types of beliefs do in fact generate more bias than others, at least in the context of salient contrast as our IRT conditions are expected to produce. These findings would suggest that specific norms held by specific types of groups *do* promote ideologies of superiority within an individual's group as a whole, and in turn, as individuals identify with that group, they engage in those norms when dealing with other groups.

Identity and In-Group Bias in Response to Threat Situations

Previous research has examined bias as a result of inter-group comparison (Haslam et al., 1995). Researchers have also contrasted the effects of comparative and normative fit as a prerequisite for salient contrast (Oakes et al., 1991). However, to date, researchers have not addressed the conditions of salient contrast when there is an actual

personally relevant threat between two groups. In order to examine realistic conflict and the threat associated with it, we apply our proposed salience factors to in-group bias when the nature of group interaction is designed to be critical of the in-group. As a result, we examine both traditional findings in bias research, as well as some exceptions that might result because of IRT conditions.

Source and Degree of Threat as Factors of In-Group Bias

When a situation involves threat, the source of the threat message as either an in-group or out-group member may alter how the threat is received according to SCT principals of comparative and normative fit (Reynolds, Turner, & Haslam, 2000). Previous researchers suggest that threat will generally produce comparative fit if the source of a threat message is an out-group member. Logically, when two groups are presented as dissimilar to each other, in-group bias seems likely given previous research using MGP (Tajfel et al., 1971) that has demonstrated in-group bias under conditions that minimize group identity. Likewise, comparative fit is easily induced by only providing a specific out-group against which to compare, unlike Haslam et al., (1992) who purposely altered the number of group comparisons. Thus, for the current situation that openly creates conflict, comparative fit and subsequent differentiation should be relatively easy to establish for in-group members (Haslam et al., 1992; Oakes et al., 1991). Normative fit, on the other hand, may play a significant role when a threat comes from a perceived in-group member. More specifically, group criticism may be expected from another group with potentially different agendas and goals, but threat coming from a perceived in-group member is inconsistent with the idea of what an in-group member should believe. As an example, Oakes and colleagues (1991), in an experimental manipulation

pitting arts students versus science students, demonstrated the importance of normative fit when producing salient contrast between in-groups and out-groups. Specifically, these researchers found that arts students who produced inconsistent expected views about a given issue had their views explained by internal attributions (e.g., personality) by science students as opposed to external attributions (e.g., group influence). When the other group's views were inconsistent with expected stereotypes, less group cohesion was perceived, and as a consequence, less comparative fit between groups occurred. As a result, the salient contrast between groups lessened (Oakes et al., 1991).

In essence, Turner et al. (1987) proposes that comparative and normative fit is the mechanism of group differentiation and subsequent bias. In turn, Oakes et al. (1991) demonstrated that a lack of normative fit inhibited comparative fit. Thus, one interpretation of this research suggests that less normative fit results in less contrast, and subsequently less bias. In conjunction with these findings, we suggest that normative fit will be less when threat is presented by an in-group member. A message that is counter-attitudinal to an in-group presented by a member who is supposed to be similar creates a conflict between expectations of in-group beliefs and the views actually espoused.

There are however, exceptions to this rule when the nature of the message involves criticism. For instance, Moreland and McMinn (1999) demonstrated that ex-members of a particular group who criticized completed projects by the in-group created more distress and rejection compared to criticism from an unrelated group (i.e., out-group). Other researchers (see Hornsey & Imani, 2004 for a general review) have demonstrated that criticism from in-group members tends to be severe towards in-group members who do not conform (Abrams, Marques, Bown, & Henson, 2000) or are

disloyal (Branscombe, Wann, Noel, & Coleman, 1993). Taking the above research into account within an IRT scenario where direct criticism is applied to group behavior, it is possible that a "black sheep effect" (Hornsey & Imani, 2004, p 366, but also see Hornsey, Oppes, & Svensson, 2002) might occur. In other words, a sense of betrayal stemming from the presentation of criticism from another organization with similar ideologies and beliefs (i.e., an in-group) may in fact *produce more bias*, than from an out-group where criticism is perhaps more expected.

In essence, the general theoretical mechanisms of SCT would suggest that messages from an in-group member will generate less bias than an out-group member. However, other research demonstrates a "black sheep effect", or the result of betrayal of an in-group by a particular member. Given the concept of IRT conditions as a threat condition (e.g., criticism; Moreland & McMinn, 1999), either effect could be likely, depending on how severely participants perceive and interpret the message. If participants find the criticism tolerable, stimulating favorability towards an in-group member, bias could be lessened, as Oakes and colleagues (1991) describe. In contrast, if the criticism is seen as severe, a black sheep effect seems more likely. As a tentative hypothesis we expect the former to occur, but leave open the possibility that the latter is also probable. *Thus, following Oakes et al, (1991), we would expect that lesser degrees of salience in an in-group presented message, in part due to poor normative fit, will produce less bias compared to an out-group presented message.*

A secondary issue with salience represents the degree of threat that another group or individual presents to an in-group. Previous research has treated threat as a condition that is either present or absent. For instance, Spears, Doosje, and Ellemers (1997) used

psychology, art, and physics majors as existing groups and had these groups compare specific traits, such as intelligence or creativity. Threat was defined as a challenge to status by comparing groups that perceived themselves as disadvantaged when compared to a specific trait (e.g., psychology students compared to art students on creativity). In this example, creativity represents an evaluative trait in which art majors are perceived as more advantaged compared to psychology majors. As a result, psychology majors perceive threat because of their disadvantaged status (also see Ellemers, Spears, & Doosje, 2002; Branscombe et al., 1999; Spears, Doosje, & Ellemers, 1999). Although these findings establish the validity of threat as a reaction to an out-group, they do not address the possibility that the degree of threat might also alter the reaction. In the above example, threat is a specific trait that is not varied in its severity or application. Likewise, Spears et al. (1997) do not address how psychology students would rate art students if they were addressed as slightly more creative compared to extremely more creative. In sum, threat researchers have not directly manipulated the degree of threat presented by a threat message.

Under the assumption that threat towards an in-group produces salient comparison conditions that can produce bias (Spears et al., 1997), there is evidence to suggest that the degree of threat presented alters the amount of in-group bias produced. This proposition is based upon research examining how well traits or attributes fit a particular in-group or out-group. Reynolds et al. (2000) recently demonstrated that typicality (i.e., to what degree traits apply to the whole group) of positive traits resulted in more in-group bias. Specifically, less attributions of negative traits were assigned to out-groups when the particular negative trait was not typical of either in-groups or out-

groups. Likewise, overall discrimination was less when traits were not typical of any given group. Applied to a content message that is threatening to members of an in-group, these findings suggest that one method of varying the degree of threat is to alter the degree that a particular threat is applicable to group members. We propose that the degree to which a threat applies to all or few members of an in-group will produce different amounts of bias. In a threat situation where only a few members of a group are criticized, it is more likely that overall members of the group would not consider these accusations typical to the group as a whole. Similarly, the supposed negative behaviors of a few members of a particular group can be dismissed as behavior induced by situational circumstances (Crisp et al., 2001), in turn reducing any perceived threat to the in-group. Conversely, threat that applies to all the members of the group should establish greater degrees of bias, because of its applicability to every member of the group. *Thus, we would expect that low inclusion threat conditions (i.e., few members) will produce less bias than high inclusion conditions (i.e., all members).*

Within Group Identity as a Factor of In-Group Bias

Although we propose that the overall inclusion of threat is a potential source of in-group bias, the overall level of identification with a particular group by its members would also alter individual perceptions of bias. One of the central themes when examining groups' reactions to threat involves the reaction to threat as either high or low identifiers within an in-group (Branscombe et al., 1999; Spears et al., 1999). High identifiers within a group are more prone to exhibit depersonalization and in-group bias, whereas low identifiers exhibit depersonalization only to the extent that it furthers group and, indirectly, personal status improvement (Doosje, Spears, & Ellmers, 2002; Spears et

al., 1997). These findings lead us to expect that the salience of threat will differ for individuals with a high degree of investment or personal meaning placed within a group, versus group members who do not place a great degree of investment within the group. In conjunction with the level of inclusion of threat, we propose that a threat condition that includes the group as a whole (i.e., high inclusion) will be less threatening and create less in-group bias with low identity members as opposed to high identity members (Doosje et al., 2002; Spears et al., 1997). Likewise, we expect that in low inclusion threat conditions (i.e., threat targeting a few members), threat will be significantly less than our more inclusive threat condition for low identity members.

This expectation is based on the premise of prototypicality, or the degree that group members perceive themselves as similar. Previous research demonstrates that high identifiers are more likely to perceive the group as more similar to themselves than low identifiers (Ellemers et al., 2002). Because we expect greater prototypicality from high identifiers, it is logical to assume that individuals who have high degrees of investment and commitment in a group will perceive criticism towards a few members of the group in the same way as threat that encompasses the whole group. A threat against a few members still represents personal threat against their own identity because threats to others within the in-group are perceived as threats to themselves (Simon, Pantaleo, & Mummendey, 1995; Spears et al., 1997). Conversely, low identifiers do not perceive themselves as necessarily similar to others in the in-group. As a result, threat towards other members of the group do not personally apply to low identifiers and can be personally ignored. *In sum, different degrees of threat inclusion should produce differing*

degrees of bias for low identity members, but will not significantly alter high identifiers' ratings of bias.

Identity and the Response to Threatening Information: Persuasion and Belief Perseverance.

In the previous section we discussed how several factors might contribute to the creation of in-group bias, but did not address how in-group bias is formed. In the current section, we demonstrate the relationships between bias, persuasion, and previously held beliefs. The application of these three areas of research implies three general questions about attitude change and identity. First, does group identity alter how people cognitively process threat information? Second, as a result of that processing, what contrast exists between attitude change about the out-group compared to attitude change about the in-group? Finally, once a judgment has been made about the content of a message and the group that provides it, can these judgments be changed when the conditions and information that made the judgments accurate are recanted?

In order to examine these questions, research from both persuasion and belief perseverance are particularly important. Researchers who examine persuasion provide evidence for examining how negative messages are processed both in and out of the context of group identity. Petty and Cacioppo's (1986) Elaboration Likelihood Model allows us to examine differences in how negative messages are cognitively processed and resultant attitude changes. In contrast, research by Anderson and Lindsay (1998) provides a model for how individuals persist in their individual beliefs and the conditions necessary to counter that persistence. Evidence for why beliefs persist can explain why attitudes about the in-group may not change when given negative information. Likewise,

belief perseverance literature can address our final question about the negation of bias and the attitudes about the in-group and out-group that result from threat. In the following sections, we address the theoretical background behind persuasion and belief perserverance, the unique conditions created with group identity in a conflict/threat situation, and an elaboration of our three questions.

Theoretical Background: Persuasion and Belief Perseverance

Persuasion

According to the Elaboration Likelihood Model (ELM; Petty & Cacioppo, 1986), persuasion is a function of involvement and message quality. When individuals find that a message is personally relevant to them they engage in *central processing*, or a careful scrutiny of the content of a message in terms of its merits and faults. The result of central processing is that high quality arguments are more persuasive than low quality arguments. Conversely, if a message is not processed centrally, ELM states that *peripheral processing* occurs. That is, the audience does not pay attention to the content of the argument, but takes persuasive cues from the persuader, the environment of the room, or previously established norms (Petty, Cacioppo, & Schumann, 1983; Petty & Cacioppo, 1990).

According to ELM, the variable of importance that determines whether central or peripheral processing occurs is *personal relevance*, or the degree of involvement with a persuasive topic. Individuals who are involved with a persuasive message engage in greater degrees of central processing than those who are not involved with a persuasive topic (Petty et al., 1983). For instance, Petty and Cacioppo (1979) demonstrated that conditions where a message was considered highly relevant and important produced more

scrutiny and analysis of the argument compared to conditions where the message content was not perceived as personally relevant. In contrast, when personal relevance is low, other peripheral persuasive cues become important in processing information. For instance, Heesacker, Petty, and Cacioppo (1983) found that the perceived credibility of a source is more influential to persuasion when individuals do not perceive a message as personally relevant. Specifically, the peripheral cue of credibility was more persuasive than the quality of the argument when individuals were not motivated to scrutinize the message because of its lack of relevance. In sum, the greater the involvement, the more careful the scrutiny of the argument. Conversely, the less involved an individual is in a particular topic, the more likely non-argument based assessment occurs (Petty & Cacioppo, 1984).

Belief Perseverance

In contrast to persuasion, which represents changes in opinions and belief, *belief perseverance* is the tendency to maintain beliefs even when contrary evidence is provided. The perseverance of belief is the final stage in maintaining previously developed *naïve theories*, or knowledge structures that assume causal relations between people, things, or events (Anderson & Lindsay, 1998). It is our naïve theories about social events (i.e., the causal relations we assume about groups) that fuel our attitudes about particular groups. Thus, our expectations derive our attitudes (Anderson, 1995a, 1995b; Anderson & Lindsay 1998). As an example of how differing naïve theories alter our perceptions of events, Sedikides and Anderson (1992) demonstrated that individuals' explanations about a defector radically differed as a function of whether or not the defector was described as American or Soviet. Specifically, Soviet defectors were

perceived by Americans as oppressed and noble, whereas American defectors were seen in a negative context.

According to Anderson and Lindsay, (1998) the perseverance of beliefs occurs as a function of several criteria. First, the individual will persevere in his or her beliefs if time, cognitive resources, and/or motivation are not available. In other words, time and resources must favor the analysis of a competing naïve theory, but motivation must also exist to examine previously held beliefs. If these conditions are not met, the previously held belief will persevere. However, even if time, resources, and the motivation are available to examine a previously held belief, subsequent research has demonstrated that several cognitive biases may still occur. These cognitive biases result from the causal nature of the naïve theory that is previously held. For instance, Slusher and Anderson (1987) demonstrated that participants will overestimate the frequency of associations of word pairs that promote a previously held naïve theory. Likewise, individuals will often distort data to match their previously held theories (e.g., Sedikides & Anderson, 1992). Researchers have also demonstrated that individuals who produce arguments or justification for their beliefs tend to be resilient to belief change (Anderson, 1983). The result of these studies suggests that within social situations the examination of an alternate theory does not necessarily mean an unbiased examination of new information.

Identity and Bias, Persuasion, and Belief Perseverance Applied to Realistic Threat

In the previous section we discussed four factors (i.e., group ideology, identity, source of the message, and message inclusion) that we propose induce different degrees of salience between groups and the resultant in-group bias that can occur. In order to examine how the same salience factors apply to our inquiries about persuasion and

attitude change, it is necessary to address three important theoretical questions. The first question involves how factors that influence in-group bias likely affect how individuals process information. Answering this question allows us to examine persuasion with the use of factors that affect salience and create in-group bias. The second question asks which unique conditions occur when persuasion is applied to threat of an in-group's sense of personal value. The third question addresses the issue of negative persuasion, or the effect a counter-attitudinal message has on listeners. Elaboration on this question defines the conditions that are unique to the current experiment with regards to the persuasive ability of threat.

To address the relationship between bias and persuasion it is important to demonstrate three connections between in-group norms, naïve theories and judgment. First, the construction of naïve theories and the causal relationships derived from them are in part derived from group membership. More specifically, identity, or sense of self in regards to the environment, is developed by the interplay of affiliation with groups to which one does and does not belong (Hogg & Turner, 1987). Affiliation is then dictated by the similar and dissimilar norms and characteristics of any particular group comparison. Second, if in-group norms can be considered naïve theories, then they are used to create judgments about social situations (Anderson, 1995a, 1995b). Adherence to the norms of an in-group provides a sense of belonging, as well as common naïve theories that result in positive or negative attitudes about other groups. Thus, similarities between in-group members and differences between out-group members are judged as a function of the assumptions that a group holds (Anderson, 1995a, 1995b; Turner et al., 1987). Finally, cognitive processing is the resultant process that occurs when individuals

judge other groups. The evaluation of a persuasive message is a process that examines whether it is pro-attitudinal or counter-attitudinal, and subsequently is elaborated on for its merits either by scrutinizing the argument itself or contextual information (Petty & Cacioppo, 1986). Within the context of group affiliation, the content of a message as pro-attitudinal or counter-attitudinal is gauged by the norms of the group with which a person is affiliated. A judgment is made about the message, and sometimes the presenter of the message, as a result of this elaboration.

The logical conclusion of these points suggests that any resultant judgment is a process of cognitive elaboration *based* on naïve theories to which an in-group adheres. In-group bias represents a judgment of another group's qualities as inferior to the in-group. As a result, our above consideration of naïve theories and cognitive elaboration apply to the judgments involving in-group bias and dictate that conditions creating bias first alter the cognitive processing that allows individuals to come to a negative conclusion about another group.

Our second question involves explaining what is unique about our threat conditions within the current study. The current study seeks to ascertain the degree to which group-members persist in their beliefs about the "goodness" of their particular group. Generally, previous researchers have examined persuasion when the content of the message does not directly address the value of the group itself (e.g., Petty & Cacioppo, 1979, Petty, Rennier, & Cacioppo, 1987). Likewise, research that involves in-group persuasion does not invoke a persuasive message that is counter to the relevance and value of the group (e.g., McGarty et al., 1994). Although a particular attitude about a specific persuasive message may differ between groups, the resultant attitude change only

represents one specific naïve theory that a group holds. In contrast, by questioning the overall value of the group, a global threat is produced to a groups' status and standing. Thus, the current study is interested in the persuasive ability of a message that questions an in-group's sense of worth and standing in a social context. Although we believe that addressing individual naïve theories that in-groups hold would produce different degrees of cognitive processing and potential bias, we have "stacked the deck" so to speak. By focusing the content of the persuasive message towards criticizing the group's value, we exacerbate the relevance of the message for an in-group. In turn, alterations of the strength of the threat message by differing conditions that alter salience should produce different cognitive processing by in-groups.

Finally, because the nature of our experiment involves presenting counter-attitudinal messages to in-groups, it is important to realize that counter-attitudinal messages are processed differently than pro-attitudinal messages, regardless of group membership. For instance, Cacioppo and Petty (1979) demonstrated that levels of persuasion and neutral thoughts about a counter-attitudinal message are significantly less than a pro-attitudinal message. Conversely, counter arguments tend to be greater with counter-attitudinal messages. Similarly, when examining the degree of involvement with a persuasive message, Petty and Cacioppo (1979) found that investment within a particular belief produces greater degrees of negative attitudes and greater degrees of arguments against the counter-attitudinal message. These examinations of negative messaging suggest that threat messages towards an in-group are not received well, produce less persuasion than pro-attitudinal messages, but are contemplated more than pro-attitudinal arguments. As a result of these findings, it is important to note that an

examination of threat within the context of persuasion is an examination of what conditions produce the most *anti-persuasion*. Our experiment examines both central and peripheral processing in regards to how much in-groups are persuaded by a threat message. We discuss specific cognitive processing predictions below.

Identity and Threat Message Processing: Central or Peripheral?

In our examination of persuasion and salient contrast within IRT conditions, we first examine two variables that could individually or jointly contribute to the positive or negative evaluation of a critical message. The essence of the following examination of central and peripheral processing is that both salient contrast invoked by manipulations of source and inclusion, as well as individual participant's degrees of central or peripheral processing, will contribute to positive or negative responses towards an IRT message. In other words, individual (and not condition determined) measures of central and peripheral processing in the current study are defined as individual random variables. Each participant within a specific organization will process a threat message on an individual basis. In turn, positive and negative responses are expected to vary as a function of either central or peripheral processing. We expect that this relationship is further influenced by group applied salience manipulations in terms of source and inclusion. These manipulations will further contribute to central and peripheral processing of participants within groups and towards predicting positive and negative outcomes.

Research examining persuasion often demonstrates differing outcomes based on positive or negative elaborations made about a particular manipulated condition. Initial studies performed by persuasion researchers (e.g. Petty & Cacioppo, 1979 but also see

Cacioppo & Petty, 1979) examined attitude change in the context of directly manipulating conditions of persuasion that were later defined as central and peripheral approaches. For example, Cacioppo and Petty (1979) altered involvement in the message as either high or low and used the subsequent differences in the amount of positive and negative statements made to demonstrate a peripheral or central approach to argument analysis. These findings involving personal relevance as a manipulation provide evidence of processing differences by examining the attitudinal outcomes of the statements made by participants. The summation of this research demonstrates (as a general principal) that as peripheral processing increases, negative statements increase for arguments (Petty & Cacioppo, 1979; Petty, et al., 1983). These findings make sense in the context of identity and salient contrast, in that negative responses represent a *lack of persuasion,* whereas positive responses represent favorable reaction to a message, and can be construed as favorable or *persuasive* outcome of the message on participants. *One of the general assumptions following our expectations for positive and negative responses regards the above findings, in that we would expect in a realistic threat scenario that central processing will be inversely related to the amount of negative statements produced from an argument (Petty & Cacioppo, 1979; Petty et al., 1983).*

As such, the evaluation of positive and negative responses in an IRT scenario provide the overall evaluation and validity of a threat message. However, there are alternate assumptions with regards to central and peripheral processing and the likely positive or negative outcomes that occur from processing a threat message. Our current assumption for the above hypothesis is that a participant engaging in peripheral processing could assess the message using previous assumptions, and in turn rate a threat

the group (4.09 versus 2.09, $t(1,179) = 6.41$ $p = .000$). Additionally, participants perceived the statement applying to everyone in the group in the low inclusion condition compared to the high inclusion condition (2.73 versus 1.95, $t(1,179) = 2.61$, $p = .01$).

Both of these findings, although very low scores in terms of range, suggest that the nature of the message applying to only a few members compared to all of the members of a target group was perceived and a "perceived typicality" effect took place (e.g. Reynolds et al., 2000). In essence, participants were less willing to accept the group's responsibility for the message when the threat applied to everyone in the group. In contrast, the accusation of only a few members was more readily accepted, providing evidence that high and low inclusion conditions were differently perceived.

Results Overview

For each of our principal analyses regarding in-group bias, persuasion variables, and persistence of bias, preliminary subject level ANOVAs were conducted. The goal of these analyses are to test our exploratory hypotheses involving naturally occurring differences in bias and persuasion due to the type of group to which individuals have invested identity. These analyses were conducted before HLM analyses to determine if additional variables should be included in the model to account for consistent differences in scores due to group type.

Following these ANOVAS, preliminary HLM model testing is reported, which determines the goodness of fit by comparing the variance explained by the unrestricted, predictor only, and predictors and manipulation HLM models. In addition, the amount of subject and group level variation of the dependent variable is reported, and this variation is tested to determine if sufficient between group variation exists to conduct a subjects

nested within groups HLM model. The addition of an Inclusion X Source interaction term is also tested against the principal results model to determine if an interaction of these two Level-2 predictors is relevant to the principal model. Lastly, results are reported for the final HLM model used to test the hypotheses outlined in the introduction. These hypotheses are repeated in an introductory paragraph. A brief tutorial on interpreting HLM output is provided in Appendix A.

Results Section 1: HLM Models of In-Group Bias

Descriptive Statistics: Aggregate Sample

In order to provide general relationships with the overall sample and descriptive statistics for each college or university sub-population, Table 1 provides dependant variables of interest separated by manipulation. Table 2 provides demographic information separated by college or university sampled. Table 3 provides sample correlations between dependent variables for the aggregate sample.

TABLE 1

Means and Standard Deviations of Relevant Variables by Condition

Condition *N* *Group Type*	*BIAS*	*RESBIAS*	*NEGPER*	*ARGPER*	*GRPPER*	*VALUE*	*RESVALUE*	*IDENTITY*
Low Inc In-Group								
20 Fraternity	-4.31 (3.51)	-2.59 (3.03)	0.38 (0.33)	0.57 (0.36)	0.28 (0.31)	-0.55 (2.61)	-0.90 (2.19)	4.88(1.07)
9 Religious	-1.84 (1.87)	-1.44 (1.60)	0.25 (0.30)	0.48 (0.26)	0.55 (0.26)	-0.22 (1.30)	0.00 (1.50)	5.25(1.08)
14 Sorority	-2.52 (2.50)	-0.75 (2.30)	0.23 (0.31)	0.61 (0.30)	0.70 (0.32)	-0.71 (1.54)	0.21 (1.12)	5.01(1.14)
Aggregate	**-2.89**	**-1.59**	**0.29**	**0.55**	**0.51**	**-0.49**	**-0.23**	**5.05**
Low Inc Out-Group								
20 Fraternity	-3.88 (1.93)	-2.66 (2.13)	0.39 (0.35)	0.58 (0.25)	0.46 (0.32)	1.05 (2.70)	-0.05 (2.48)	4.99 (1.23)
12 Religious	-2.16 (2.30)	-1.20 (2.49)	0.28 (0.26)	0.67 (0.11)	0.48 (0.27)	-0.46 (1.87)	-1.29 (2.97)	5.27 (1.36)
7 Advocacy	-2.91 (1.71)	-1.67 (1.78)	0.45 (0.18)	0.63 (0.21)	0.43 (0.24)	-2.42 (1.90)	-1.14 (1.57)	4.89 (1.32)
Aggregate	**-2.98**	**-1.84**	**0.37**	**0.63**	**0.45**	**-0.60**	**-0.82**	**5.05**
High Inc In-Group								
49 Sorority	-6.12 (2.47)	-2.90 (2.37)	0.59 (0.30)	0.53 (0.25)	0.36 (0.25)	0.31 (1.57)	0.27 (1.55)	5.06 (0.98)
5 Religious	-1.97 (2.15)	-1.12 (0.77)	0.26 (0.24)	0.71 (0.22)	0.52 (0.30)	-1.20 (1.64)	-0.20 (0.84)	5.10 (1.59)
6 Advocacy	-3.74 (1.02)	-2.86 (1.16)	0.60 (0.26)	0.62 (0.13)	0.26 (0.16)	-1.07 (1.42)	-1.40 (2.26)	5.00 (0.68)
Aggregate	**-3.94**	**-2.29**	**0.48**	**0.62**	**0.38**	**-0.65**	**-0.31**	**5.07**
High Inc Out-Group								
27 Fraternity	-4.25 (2.39)	-3.05 (2.46)	0.33 (0.34)	0.67 (0.36)	0.45 (0.34)	-0.67 (1.49)	-0.26 (1.50)	5.00 (1.26)
5 Religious	-6.93 (2.56)	-4.36 (1.05)	0.28 (0.38)	0.46 (0.31)	0.42 (0.21)	-1.40 (1.67)	-1.40 (2.40)	4.10 (1.94)
6 Advocacy	-4.96 (1.53)	-0.38 (2.48)	0.61 (0.25)	0.41 (0.27)	0.41 (0.27)	-0.17 (0.41)	-0.67 (1.21)	6.08 (0.99)
Aggregate	**-5.38**	**-2.59**	**0.41**	**0.51**	**0.43**	**-0.74**	**-0.78**	**5.06**

Note: BIAS = Manipulation bias score; RESBIAS = Bias score after message negation; NEGPER: Percent of total negative statements made; ARGPER = Percent of total argument focused statements; GRPPER = Percent of total statements that focus on participant's group; VALUE = Participants perceived value of group; RESVALUE = Participant perceived value of group after message negation; IDENTITY = Participant's identity score.

TABLE 2

Demographic Variables by College or University

Variables	*Site 1*	*Site 2*	*Site 3*	*Site 4*
Sample Size	127	34	14	5
Relevant Means				
Age	20.03 (1.51)	21.76 (7.44)	20.50 (1.69)	20.8 (.83)
Relevant Percentage Of:				
Females	45.0%	47.1%	100.0%	80.0%
Males	55.0%	52.9%	0.0%	20.0%
Freshmen or Sophomores	57.5%	35.3%	50.0%	0.0%
Juniors or Seniors	42.5%	64.7%	50.0%	100.0%
Caucasians	96.0%	97.1%	100.0%	100.0%
Attends Most or All Meetings	100.0%	88.2%	100.0%	100.0%
Members 1 Year or More	82.7%	73.5%	57.1%	100.0%

TABLE 3

Pearson Correlations of Relevant Variables, Aggregate Sample

Variables	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1.Bias	1	.62**	-.36**	.18*	.18*	-.07	-.05	-.23**
2.Residual Bias		1	-.11	.07	.11	-.07	-.05	-.10
3.Negative %			1	-.33**	-.44**	-.02	.09	.10
4.Argument %				1	.41**	-.04	.00	-.10
5.Group %					1	.03	-.05	-.07
6.Value Diff						1	.51**	-.01
7.Residual Value Diff							1	-.01
8.Identity								1

Preliminary Analyses of Bias Group Differences

In order to examine potential differences in in-group bias due to the type of group (e.g. Fraternity, Sorority, Religious Group, or Advocacy), a series of one-way ANOVAs were conducted within each manipulation type. Tukey post-hoc tests were employed to determine any consistent differences of bias between individual groups within manipulations. The only significant ANOVA was in the high inclusion/in-group manipulation ($F(2,57) = 8.946, p < .000$). Subsequent examination of the groups within this condition indicated that a religious group demonstrated significantly more bias in comparison to other groups (-6.13 versus -3.74 and -1.98, p's $< .05$). These few and non-consistent findings suggest that in-group bias does not consistently differ due to membership in differing organizations. Because no other consistent or significant differences were found, this score was considered a naturally deviating score, and a group difference variable was not included in the model.

Preliminary Fit of HLM Model: In-Group Bias

The examination of an unspecified HLM model with in-group bias as an outcome variable indicated an intra-class correlation (ICC (r)) of .27 indicating that 27% of variation for in-group bias resides between groups. Applying a formula for sufficient between group variation (see Muthen, Muthen, Asparovhov, & Nguyen, 2006, but also see Muthen & Satorra, 1995 for an applied example) provides a score of 4.71(> 2.00), indicating sufficient variation to use HLM in subsequent analyses. Reported deviance for the unspecified model was 849.50. Subsequent significant reductions in this deviation score when testing additional models represents a better fit.

Preliminary Fit of Model: In-Group Bias. Inclusion of identity as a subject level predictor produced a significant reduction in model deviation (849.50 versus 832.25, χ^2 (1,11) = 17.24, p = .000). The inclusion of Level 2 predictors of inclusion and source also tended to reduce model deviation (832.25 versus 823.20, χ^2 (4,8) = 9.04, p = .059). Thus, in each step the addition of both Level 1 and Level 2 predictors of negative statements increased the overall fit of the model. The inclusion of an interaction term of Inclusion X Source examining mean differences did not significantly reduce variation (823.20 versus 822.97 , χ^2 (1,12) = 0.22, p > .50), and the interaction term within this model was not significant (p = .64). As such, the interaction term for this model was removed from the analysis.

Primary HLM Model: Identity, Inclusion, and Source as Predictors of In-Group Bias

In order to examine our first three hypotheses, a 2 level HLM model was employed with identity as a subject level predictor, and inclusion and source as Level 2 predictors. This HLM model will address whether or not (H1) in-group manipulations produce less bias than out-group manipulations, (H2) low inclusion manipulations produce less bias than high inclusion manipulations, and (H3) whether or not identity differentially predicts bias as a function of our manipulations.

Reliability for this model was .65, and approximately 44% of the between level variation and 12.6% of total model variation were explained with the addition of these predictors to the model. Both HLM and OLS results are reported in Table 4.

TABLE 4

HLM and OLS Estimates of Identity, Inclusion, and Source Towards Predicting In-Group Bias

	HLM				OLS			
Fixed Effect	Coefficient	*S.E.*	*t*-ratio	*p*-value	Coefficient	*S.E.*	*t*-ratio	*p*-value
LEVEL 2 Intercept β0								
INTRCPT2, γ00	-2.83	0.58	-4.83	0.001	-3.41	0.32	-10.54	0.000
INCLUS, γ01	-1.77	0.69	-2.55	0.031	-1.98	0.36	-5.37	0.000
SOURCE, γ02	-0.36	0.69	-0.52	0.610	0.45	0.37	1.22	0.224
LEVEL 1Identity β1								
INTRCPT2, γ10	-0.99	0.27	-3.59	0.001	-0.99	0.29	-3.35	0.001
INCLUS, γ11	0.06	0.30	0.21	0.829	0.06	0.32	0.20	0.841
SOURCE, γ12	0.58	0.30	1.91	0.056	0.58	0.32	1.78	0.075

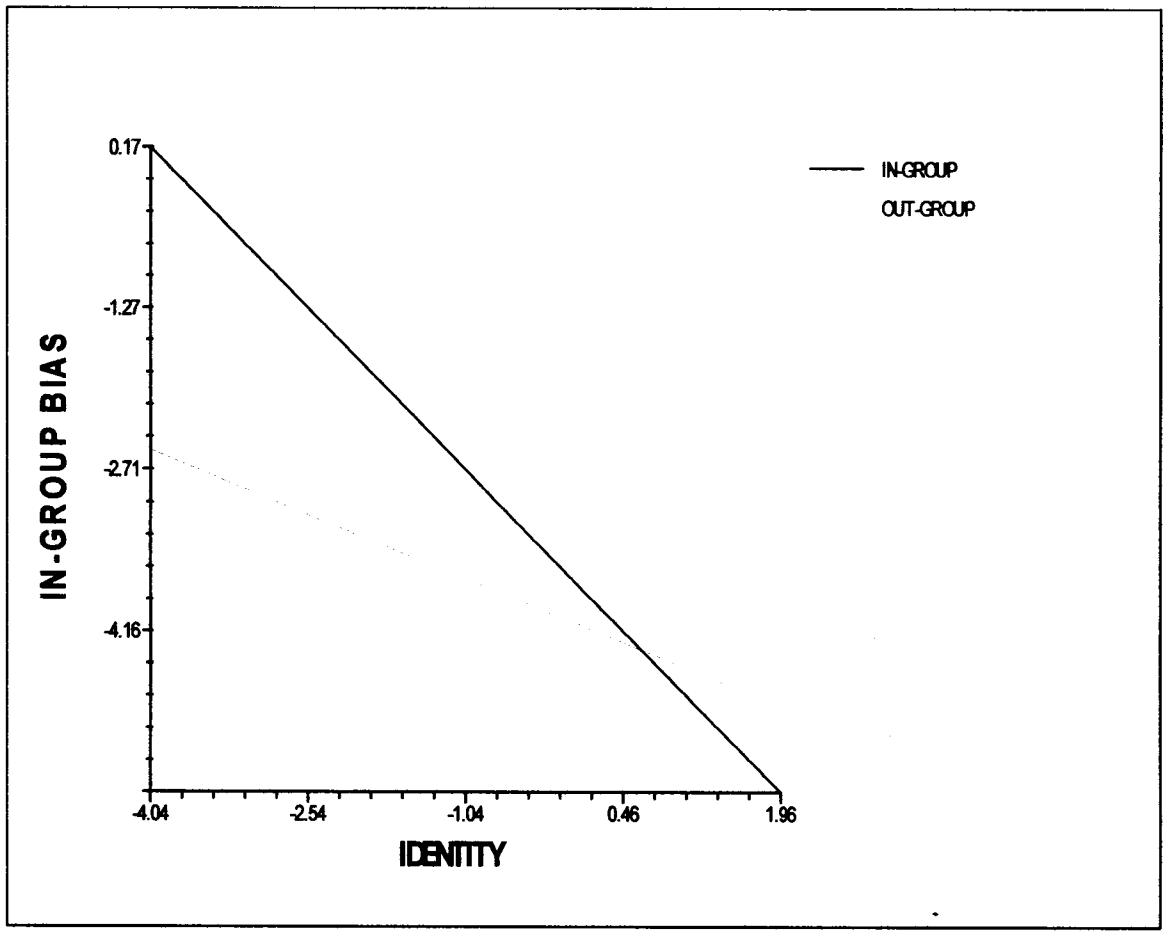
Final estimation of variance components:

	S.D.	s^2	χ^2	*p*-value
Level-2,	0.97	0.94	50.03	.001
Level-1,	2.29	5.24		

In terms of main effects as represented by β_0 intercept scores, results indicate that contrary to my hypothesis, the source of the message from an in-group or out-group member did not significantly alter the amount of bias created ($\gamma = -.36, p = .61$, H1). However, the degree of inclusion presented to groups did create significantly different degrees of bias (e.g., H2) indicating that groups who received a low inclusion threat showed 1.77 units less bias compared to those who heard a high-inclusion threat ($p = .03$).

In terms of interaction effects between Level 1 identity and Level 2 variables, results demonstrate that the degree of social identity that individuals express for a given organization is generally associated with greater degrees of bias ($\gamma = -.99, p = .001$). In addition, results indicate a trend ($\gamma = .58, p = .056$) source X bias interaction where a significantly greater identity/bias slope is associated with those groups who received a message from an in-group member compared to an out-group member. Essentially, bias remains consistently negative as identity increases for out-groups, but bias becomes greater as identity increases for in-groups. However, in confirmation of our expectation that high identifiers would remain equivalently biased regardless of inclusion or source, Figure 1 demonstrates that in-group and out-group high identifiers are equivalently and highly biased, whereas low identifiers in both conditions differ in their bias ratings (H3).

FIGURE 1. *Figure of the Interaction of Identity and Source Towards Predicting In-Group Bias.*



Results Section 2: HLM Models Examining Identity and Components of Persuasion and Threat Evaluation

Preliminary Analyses of Persuasion Group Differences

Again, in order to examine potential group differences due to group type, a series one-way ANOVAs were conducted within each manipulation type for Argument% and Negative%. Tukey post-hoc tests were employed to determine any consistent differences between individual groups within manipulations. For Argument% none of the ANOVAS were significant. For Negative% only the high inclusion/in-group condition approached significance ($F(2,57) = 3.049, p = .055$). Examination of the individual group means within this condition demonstrates that a religious group showed a significantly less number of negative statements compared to an advocacy group (.26 versus .60, $p = .05$) but was not significantly different from the other group ($p = .12$). As none of these isolated group differences show consistent differences across manipulations or dependent variables, they were considered as natural variations from an overall distribution of the dependent variable, and dummy codes were not included in subsequent models.

Preliminary Analyses: Identity and Central and Peripheral Processing

In order to examine any potential relationship between individual identity invested within a particular organization and its relationship between the degree of central and peripheral processing (H7), a Pearson correlation was performed to examine the relationship between these two variables. Results indicate that identity is not significantly associated with the degree of argument centered statements presented ($r = -.10, p = .16$). However, any potential correlational relationship could be confounded by differential association between identity and central processing due to the different

conditions presented to participants across groups. A 2-Level HLM model was employed to test this possibility.

Preliminary Fit of HLM Model: Argument Centered Statements. Examination of an unspecified HLM model with argument centered statements as an outcome variable indicates a very small amount of between group variation ICC (r) of .002. The application of the Muthen et al., (2006) formula for sufficient between group variation provides a score of 1.03, which indicates that insufficient variation is evident to use HLM in subsequent analyses. As a result subject level analyses were employed to examine any significant variation that could occur due to the manipulations with regards to the relationship of identity and argument centered statements.

Identity, Inclusion, and Source as Predictors of Argument Centered Statements. An examination of subject level analyses where potential mean variation of argument centered statements due to degree of inclusion or source of the message did not show any significant effects. More importantly, identity did not significantly predict argument centered statements and interaction effects of identity with the manipulations were not significant. In summation, identity does not seem to be significantly related to central or peripheral processing of the presented messages. These results can be examined in Table 5.

TABLE 5

HLM and OLS Estimates of Identity, Inclusion, and Source Towards Predicting Degree of Argument Centered Statements

	HLM				OLS			
Fixed Effect	Coefficient	*S.E.*	*t*-ratio	*p*-value	Coefficient	*S.E.*	*t*-ratio	*p*-value
LEVEL 2 Intercept β0								
INTRCPT2, γ00					0.59	0.02	28.13	0.000
INCLUS, γ01					-0.01	0.04	-0.31	0.753
SOURCE, γ02					0.05	0.04	1.11	0.270
LEVEL 1Identity β1								
INTRCPT2, γ10					-0.03	0.01	-1.38	0.169
INCLUS, γ11					0.04	0.04	0.98	0.328
SOURCE, γ12					0.01	0.04	0.26	0.793

Note: Level 1 and Level 2 variation cannot be computed for the OLS model.

message much more negatively than a participant engaging in central processing. In this scenario, central elaboration on the argument itself may draw participants away from the negative connotations denoted by the speaker in terms of tone and accusation. The reasoning behind this expectation is that within the IRT context, part of the motivation to review a threat message is to invalidate it. Therefore, when a message is carefully scrutinized, participants will have the opportunity to invalidate the argument, reducing threat and consequence of the message to the group, and in turn reducing overly hostile reactions or statements.

This is in contrast to other persuasion research, where primarily central processing will evoke more negative evaluations, particularly if the content of the message is not strong (i.e. Petty et al. 1983). However, we expect IRT conditions to make a difference in this particular series of findings due to personal relevance and threat of the current situation. Although previous persuasion research purposely examined issues that were not of high personal relevance (e.g., Fabrigar & Petty, 1999), in the current IRT scenario participants are motivated to examine the relevance of the threat, and if possible disarm it, which promotes the maintenance of well-being and self-esteem of the participants (Tajfel & Turner, 1979). Therefore, whether or not the message is considered weak or strong, the primary motivation for participants first represent the alleviation of threat, and subsequently evaluate the nature of the message itself as a strong or weak argument.

However, this is not to say that salience regarding the source of the presentation of the message, or the degree to which a threat message is applied to a group will not influence central and peripheral arguments and participants' responses to a threat

message. Similar to in-group bias, the source of a persuasive message as either an in-group or out-group could make a difference in how in-group members process and evaluate that message. Persuasion literature that examines in-group/out-group sources of a persuasive message is similar to previous research examining involvement as a factor of persuasion. In other words, personal relevance can be dictated by the group source of a message. For instance, McGarty et al., (1994) demonstrated that group membership plays a significant central route to persuasion. In this study, researchers manipulated in-group/out-group status by asking for participant's stance on one of two messages involving road safety or banning alcohol to prevent brain damage. Results showed that agreement with messages were higher when they came from an in-group source, regardless of the amount of personal salience or relevance for the participant. Additionally, McGarty et al., (1994) demonstrated that as salience increased for an in-group message, accurate recall of the speaker's statements increased, whereas an out-group message demonstrated low message recall rates regardless of salience. The overall findings for this research suggest that messages from an out-group member are not liked as well as messages from an in-group member, but more importantly, out-group messages are not recalled as well, or at all, suggesting a lack of scrupulous examination (i.e., peripheral processing) of an out-group argument. Additional research has supported the above findings that in-groups apply more scrutiny to in-group messages, while generally resisting attitude change from out-groups (e.g. Flemming & Petty, 2000; Wilder, 1990), whereas other research has consistently demonstrated differential processing dependent on salience and the source of the message as an in-group or out-

group member (Mackie & Worth, 1989; Mackie Worth, & Asuncion, 1990; Mackie, et al., 1992).

The body of these findings suggests that peripheral processing is more likely when out-groups present a threat message, which in turn could warrant more negative evaluations of the message. In a similar vein, messages from in-group members should be evaluated more on the merits of the argument. Applied to our previous expectation that peripheral processing is associated with greater degrees of negative statements, we would generally expect an interaction of central processing and source. *Peripheral processing should be more strongly associated with a threat message presented by an out-group member generating a greater amount of negative statements, compared to an in-group member presenting a message, where we expect less peripheral processing, and in turn, less negative statements.*

Likewise, we propose that the inclusiveness of the threat itself might also alter how a message is processed and evaluated. As a general principal both Petty and Cacioppo (1986) with ELM as well as Turner et al., (1987) with SCT propose that it is the personal relevance of the situation, or salience that dictates persuasion and positive and negative responses. Regardless of whether or not the message is produced by an in-group or out-group member, the personal content of the message is relevant to participants to the extent that the threat is considered salient (Spears et al., 1997; Turner et al., 1987). However, previous researchers examining persuasion and group identity have not examined persuasion as a threat to in-group value. For instance, McGarty et al., (1994) chose road safety or alcohol abuse as persuasion topics, which did not contain either positive or negative evaluations of group members. Rather, in-groups were created

by pre-assessing attitudes about the presentation topic beforehand. Thus, the in-group's reaction to a persuasive message was manipulated based on the specific topic that was evaluated. Neither the message presented nor the formation of the in-groups in this experiment addressed personal value of an in-group. Because previous research has not directly addressed group value, we propose that threats to an in-group's value represent a consistently salient message that may result in different positive and negative responses dependent upon to what degree the threat is applied to the group as a whole.

As with the source of the message, we would expect a similar interaction of central and peripheral processing and inclusion towards predicting positive and negative responses. When a message is presented that applies to the entire group, we expect the threat to invoke greater degrees of personal relevance, and as such more central processing is likely (Petty & Cacioppo, 1986). *As a consequence, we would expect less overall degrees of negative statements as the validity of the threat message is specifically considered, and cognitive opportunity is present to deconstruct the validity of the threat.* When a message is presented to a group that only criticizes a few members, personal relevance is less likely, and as such peripheral methods of evaluation will be more likely. *As such we would expect a greater amount of negative statements to be present as peripheral processing increases.*

To reiterate, as a result of these studies demonstrating the role of personal relevance in ELM, we would expect differences in how messages are evaluated positively or negatively as a function of the salience invoked by our manipulations, but we would also expect participants' degrees of central and peripheral processing to individually contribute to positive and negative statements differentially due to our

salience manipulations. In essence, positive and negative responses as a dependent variable should vary as a function of the type of threat we present. Individual degrees of central and peripheral processing in turn should help predict those positive or negative responses dependent upon the condition presented.

Within-Group Identity and Persuasion

Although the above hypotheses address the potential relationships between central and peripheral processing, salience, and positive and negative assessments of a threat message, they do not address the role of individual identity. Research would suggest that greater degrees of investment within the membership of a group would lessen the degree to which argument focused elaborations would occur. Individuals who maintain high levels of identity are not likely to examine or change their attitudes regarding out-group members' messages. As explained by Branscombe et al., (1999) and Spears et al., (1999), high identifiers are more prone to exhibit in-group bias, and low identifiers are only prone to in-group bias if it furthers group goals or status improvement. As such, those who highly identify with a group are more likely to engage in peripheral processing, as the invested identity within the group would make highly identified participants to be less likely to carefully evaluate a message from an out-group member, or distinguish a threat towards a few members versus the entire group. *The subsequent expectation from this research is that in general, identity will not only be positively associated to negative statements within a threat scenario, but also be positively related with peripheral processing.*

Identity and Focus on the In-Group

To examine our final two questions, we first have to address the relationship between the processing of a counter-attitudinal threat message and the potential attitude change that can occur from that processing. Because previous research has not addressed persuasion as a threat to group value, how attitude change is assessed within persuasion literature must also be examined in the context of threat to group value. However, when persuasion and attitude change are examined in the context of group dynamics and threat, another simple component of group interchange likely affects how participants process a threat message. Salience between an in-group and an out-group represents a focus on the differences between the two groups (Turner et al., 1987). Following these basic premises, salience between these two groups represents a contrast that creates bias because the out-group is perceived as different from the in-group. In order for bias to be attributed to the out-group, participants must focus their cognitive elaborations towards the out-group and not the in-group. In other words, it seems likely that elaboration of the threat message will involve a focus upon the negative qualities of the out-group and not the validity of the message towards reducing positive views of the in-group.

Thus, the *focus* of a participant's cognitive elaborations on either the in-group or out-group might produce different degrees of attitude change, regardless of the amount of central or peripheral processing. *We propose that the greater the salience of contrast between two groups, the greater the in-group's s elaboration will focus on the out-group. Conversely, less salient contrast between two groups suggests in-group elaboration will focus on defending the in-group.* Because conditions of threat maximize salience, they induce a separation between an in-group and an out-group. The cognitive elaboration

necessary to defend the in-group's value results in a focus of the validity of the out-group's position and arguments. Conversely, if salience between groups is less, then the validity of an argument is not addressed purely on the basis of it coming from an out-group. As a result, individuals may attempt to address threat by examining conditions within their own group. We would expect that the overall ratings attributed to a threat message would differ based in part as a function of predominantly in-group or out-group focused elaborations. To the extent that participants see less of a contrast between the presenter of a threat message and themselves, or to the extent that the message is considered personally relevant, it is more likely that the individual will apply the statements to his or her own group and elaborate upon them. *Thus, less overall salience may result in greater amounts of group-focused statements in contrast to high salience conditions where the participant is defending the well being of the group from the outsider.*

Similarly, salience is also determined by the degree to which participants identify with a particular group (Branscombe et al., 1999; Spears et al., 1999). Because high identifiers are expected to treat threat as relevant (e.g., Doosje et al., 2002), regardless of the source of the message, it seems likely that high identifiers will be more likely to automatically focus on the out-group. Consider that an individual who is highly invested in a particular organization and deriving purpose and meaning from that group, would be unlikely to examine potential flaws and shortcomings within a particular group. *As such, we would expect greater degrees of identity to be associated with greater amounts of out-group focused elaborations in order to minimize the degree to which participants are willing to review a threat message about their own group.*

As a function of potential differences in in-group focused elaborations due to the amount of salient contrast evoked, it also seems likely that in-group focused elaborations are directly or indirectly associated with the amount of participants' positive and negative responses. Consider that greater salient threat conditions will minimize the motivation to review a naïve theory by promoting cognitive elaboration towards the out group and not the in group. Likewise, because low inclusion threats are expected to evoke less salience compared to high-inclusion threats we would expect greater amounts of in-group focused elaborations. As such, it seems likely that when salience is high, out-group elaboration is more likely, resulting in negative statements. Borrowing from the research of Mackie et al., (1990) and McGarty et al., (1994), our manipulations of source and inclusion, partially *due* to variation in-group focused elaboration, will invoke differing degrees of positive and negative statements. *Specifically, out-group elaborations should be more significantly associated with negative responses in out-group messages compared to in-group messages and high inclusion manipulations compared to low inclusion manipulations.*

In summation, the above discussion of persuasion proposes two broad influences towards the evaluation of IRT threat messages. First, we expect individual effects of identity, central and peripheral processing, and elaboration focus to significantly contribute to positive or negative evaluations of threat messages. Subsequently, we propose that the conditions of inclusion and source of the message will potentially alter these relationships, due to differing degrees of salient contrast that they evoke.

The Removal of Salient Identity Threat and the Perseverance of Belief

The previous section examining attitude change represents a global test of belief perseverance applied to identity, only in reverse. More specifically, attitude change about a group's value when an individual has previous investment in a group is the opposite of belief perseverance. In the previous section we propose that attitude change was a function of the focus of elaborations about a threat. Because salience represents a focus between in-group/out-group comparison, we expect that the degree of salience elicited by a threat may invoke a different focus on elaborations. Highly salient situations will result in a positive increase in perceived group value due to a focus of elaborating about the out-group, and not the defense of the in-group's merits. Conversely, lower degrees of salience will illicit an evaluation of the validity of the argument that might in turn lower a participant's perception of group value.

Our final section removes itself from the specific predictions of bias and persuasion and asks a more general question: once conditions that promote inter-group comparison and conflict are invalidated, will previous attitudes about in-group value and bias towards the out-group persevere? It is important to note that the current question is independent of other hypotheses presented in the current study. Although the manipulations of investment, source, and identity are potentially interesting exploratory questions, attitude change as a result of threat can be examined in terms of whether or not it persists after the initial information has been recanted. Thus, in contrast to the creation of a single naïve belief in the laboratory, our question about belief perseverance is whether a complex threat situation and resultant attitudes that occur can be nullified by recanting the information that initially started the conflict.

Early research in belief perseverance demonstrated a tendency for people to persevere in beliefs that were created within the laboratory. For instance, Ross, Lepper, and Hubbard (1975) demonstrated that individuals persisted in their belief about their ability to judge actual suicide notes from fake ones, even after being informed that their initial assessment of their ability was random and inaccurate. Likewise, Anderson, Lepper, & Ross (1980) demonstrated that a created association between risk-taking and success as a fire-fighter persisted after disconfirming information. Subsequent studies have applied belief perseverance to more realistic settings and demonstrated similar findings. For instance, Jennings, Lepper, and Ross (1981) showed that perceived success or failure in persuading a confederate to donate blood persisted even after discredited.

These studies demonstrate a tendency to persevere with specific beliefs and more complex value related beliefs such as persuasive ability (e.g., Jennings et al., 1981); however, their applicability towards broader belief systems that represent personal investment over time has been mostly assumed rather than tested (i.e., Anderson, 1995b). Applied to a threat situation defined within an SIT or SCT identity context, we propose a tentative explanation for how attitudes resulting from in-group/out-group threat might persevere. Our interpretation is dependent upon crucial and often repeated assumptions of SCT in the current manuscript. In-group bias is a function of salience that is established within a situational basis (Turner et al., 1987). As salience represents the mechanism that establishes attitudes towards the out-group, invalidating the situation and the message might result in a new situation where group identity is no longer salient, and thus, previous attitudes and judgments no longer apply. Thus, the question posed is

whether or not differing degrees of threat "salience" as represented by our inclusion and source variables will mediate the degree of bias or value maintained.

Belief perseverance research shows that belief perseverance can be negated, depending on several factors. For instance, Anderson (1983) showed that perseverance can be mediated by individuals creating causal scenarios of why their current belief is correct. Likewise, if a debriefing explains the tendency for belief perseverance, laboratory created beliefs can be negated (Ross et al., 1975). These findings suggest that participants must either elaborate on the new information or be made aware of a tendency to persist in beliefs in order to revise previous information (see also Anderson & Sechler, 1986). In addition, the nature of the belief being examined also affects belief perseverance. The perceived value of an in-group is a pre-existing belief that contributes to one's self-worth. Logically, previously held beliefs that are personally relevant are maintained more tenaciously than beliefs that are not as personally relevant. Research by Anderson (1995a) showed that previously held implicit personality theories biased subsequent judgments on non-congruent trait pairs (e.g., politeness related to lying). This finding is in some ways replicated with invested groups by Batson (1975) who not only demonstrated persistence of religious beliefs in the face of disconfirming information, but also showed a subsequent increase in these beliefs.

The result of these findings suggests that within the current context of threat, negative attitudes about the out-group will persist even after the validity of the threat is demonstrated to be fictitious. However, we propose a tentative caveat involving belief perseverance that may be relevant within identity threat conditions. Following research by Batson (1975), who found that in some cases discrediting beliefs would actually

intensify the beliefs being discredited, we would expect increased beliefs about in-group value as well as negative perceptions of the out-group to persist despite discrediting information about the threat. As with our discussion of attitude change, we expect this is a function of elaboration based on the out-group due to salient contrast. Although it would be considered beneficial for participants to maintain their beliefs about the superiority of their in-group, it would not be beneficial for participants to ignore the nullification of threat if their perception of the value of the in-group has lessened. For those participants who have perceived the threat as valid and have subsequently reduced their perceptions of the value of the in-group, nullification of the threat would be considered excellent motivation to change their negative assessment of their own group. *Thus, based on Anderson and Lindsay's (1998) components of time, resources, and motivation that are necessary to review a naïve theory, we might expect any negative change in the perceived value of a group to revert to pre-threat levels once the threat has been negated.*

Summation, of Premises, Exploratory Hypotheses and Predictive Hypotheses

The current study seeks to apply social identity theory (Tajfel & Turner, 1979) and self-categorization theory (Turner et al., 1987) to immediate and relevant threat (IRT) scenarios. An examination of three variables that determine salience are used to examine specific outcomes of conflict. These independent variables are identity, the source of a message as either an in-group or out-group, and the inclusion of the message as either applying to a few or all of a target groups' members. We apply these manipulations to three principal variables of conflict, namely, in-group bias, persuasion, and the persistence of in-group bias and value. In addition, we explore the possibility

that pre-existing group membership of specific ideologies may differentially contribute to our dependent variables of interest. A summary list of expectations is provided below.

In-Group Bias:

H1. In-group manipulations will produce less bias than out-group manipulations.

H2. Low inclusion manipulations will produce less bias than high inclusion manipulations.

H3. An interaction of identity and manipulation conditions will occur where individuals who have low identity will show differentiation between manipulation conditions, but high-identifiers will remain consistently and highly biased regardless of manipulations.

Persuasion:

Central and Peripheral Processing:

H4. Central processing will be inversely related to participants' negative statements in IRT conditions.

H5. Out-group manipulations will produce more negative statements than in-group manipulations.

H6. Low inclusion manipulations will produce greater amounts of negative statements compared to high-inclusion statements.

H7. Identity will be positively associated with both the amount of negative statements participants produce and positively associated with peripheral processing.

Group Focused Statements:

H8. In-group focused elaborations will be inversely associated with negative statements.

H9. Low inclusion and in-group manipulations will contain greater amounts of in-group focused elaborations compared to higher salience invoking manipulations of high inclusion or out-group manipulations.

H10. Identity will be inversely associated with in-group focused elaboration.

H11. Group-focused statements will predict greater amounts of negative statements in high inclusion, out-group manipulations, and less amounts of negative statements in low inclusion in-group manipulations.

Persistence of Bias and Belief:

H12. Bias will persist after the validity of the threat is demonstrated to be fictitious.

H13. A negative change in the perceived value of a group will not persist after the validity of the threat is demonstrated to be fictitious.

CHAPTER II

METHOD

Overview

In order to accurately examine the role of conflict and in-group bias with pre-existing groups, several potential confounds and considerations need to be taken into account. The general design of this study employed a 2 (in-group source, out-group source) X 2 (low threat inclusion, high threat inclusion) design, with ratings of identity and other variables as predictors of the dependent variable. However, in order to both control for and examine differences between individuals within groups and overall group effects, hierarchical linear modeling (HLM; Bryk & Raudenbush, 1992) was employed as the dominant means of analysis. A more detailed description of the HLM process is described in the Results section.

Participants

Student organizations were recruited from four college campuses, including three public universities in the Midwest, and one Northeastern mid-sized university, representing a total of 12 groups. Of these 12 groups, 4 general group types were assessed including fraternities, sororities, Christian religious groups, and political or ideological cause groups. Participant sizes for these groups ranged from 5 to 49 ($M = 15$; $SD = 12.86$). Each of the four groups within one particular group type received one of the two by two manipulations of source (in-group, out-group) and inclusion (low, high).

Procedure

Several procedural steps were used to recruit student organizations. Across four universities a list of student organizations were selected based on their mission statements. Groups that espoused a specific cause, regardless of the particulars of that cause, were selected for contact. Student leaders of these organizations were contacted to discuss the full purpose and nature of the study and their group's potential participation, emphasizing the temporary deception necessary to effectively conduct the study. Student leaders who agreed to participate served as confederates by announcing that someone was coming to speak with their organization with a representative from the university. Additionally, we insisted that the group leader not provide any additional information about the meeting, feigning ignorance if necessary, about why a person was coming to speak with them.

All experimental sessions were conducted at the regular meeting place and meeting time of a particular organization. At the appointed time, the student leader announced the principal investigator's name and informed the organization that he and another person were going to speak with them. For all sessions, the principal investigator was accompanied by a confederate who served as a "representative" from another student organization, and one or two research assistants. The principal investigator informed the organization that he was a representative from the university examining an "experimental new communication technique" by bringing a representative from another student organization to speak with them. The principal investigator then began a two- stage consent process in order to ensure voluntary participation on the part of participants. In the first stage the PI explained that this communication technique involved the use of

surveys, participation was voluntary, and participants were to carefully read the consent forms distributed, and should they agree, sign the form. Participants were also informed during this first stage that they would all be given a second opportunity to choose to participate after a full explanation of the procedure was given. In stage two, participants were informed that the PI was examining a new communication technique that allowed groups to freely express their thoughts and feelings when they had complaints about another student organization. The PI then explained that the actor confederate represented a student organization that for purposes of the procedure will remain anonymous so that they could express themselves without fear of their affiliation influencing the participant's organization. Participants were told that surveys would be used so that participants within the target organization could express their feelings without fear of peer influence. They were then given the opportunity to withdraw their participation and leave the room.

Participants were then instructed to complete a packet of pre-assessment measures (See Appendix C) and informed that the anonymous group representative will present his or her concerns after these packets are completed (See Appendix B).

Manipulation 1

During the process of explaining the procedure, our "representative speaker" was introduced as either representing members of another student organization that has very different ideas and goals as the target group (out-group) or a student organization that shares similar goals and ideals (in-group). This explanation served as the principal manipulation with regards to out-group or in-group source.

Independent and Covariate Measures

Several initial measures and one-item questions were provided for participants to complete before, during, and after the "representative" presented his or her message. These measures either served as subject level predictors of group manipulations, or as covariates. For each measure, an indication of its use is explained for particular models in subsequent analyses.

Identity; (Luhtanen & Crocker, 1992). The measure used for identity represents a sub-scale of the Collective Self Esteem (CSE) scale. The CSE is a 16-item measure designed to assess several components of self esteem derived from group identity. Of primary interest to the current study is the four-item sub-scale that measures the degree of self concept gained from group membership (e.g., "The social groups I belong to are an important reflection of who I am."). Each item contains likert style responses anchored at 1 (*strongly disagree*) and 7 (*strongly agree*). Subscale scores were calculated by taking the average of each subscale after reversals. A high score on the identity subscale indicates a greater degree of identity derived from a group. Reliability (α) for this sub-scale was .71

Individual Group Affiliation. In order to control for and possibly account for differences in the dependent variables due to differing group ideologies or types, a series of within-manipulation t-tests were conducted (e.g., do religious groups consistently differ from sororities in all four conditions?). If differences between group scores were consistent across manipulation types and if differences were fully crossed across the model, a dummy code (0,1) was placed in the group level analysis. Please note that these codes were test driven in that codes were created due to significant differences, rather than the group type itself. Thus, it can be the case where groups assigned to a specific

code may represent all four group types because these groups specifically differ from other groups across the manipulations. Full details involving this process are described in the Results section.

Perception of Value Change. Perceived value of belonging to a group was assessed by asking one question anchored at 1 (*not at all*) and 13 (*completely*) in the pre, middle, and post sections of the assessment. The question asks, "To what extent do other members of this group behave in such a way that promotes the "positive image" of your group?" This repeated question assessed the degree that participants believe that they are associating with a group that is altruistic or positive. Difference measures were created by subtracting each participant's response after the manipulation statement from the participant's pre-manipulation response. Thus, a negative score represents a participant's reduction in perceived value of the group, whereas a positive score represents an increase in the perception of value in the group. This process is repeated by subtracting the post-assessment of this item from the manipulation assessment of value, creating a post value change score to examine after the participants had been informed of the untrue nature of the "representative's" statement. Again, negative scores represent further reduction in perceived value, whereas positive scores represent an increase in perceived group value.

Manipulation 2

After completion of pre-assessment measures, participants were informed that the "representative speaker" will now present his or her statement and that following the speaker's statement, participants should complete section B of the survey packet (See Appendix C). Participants were told that these packets give them the opportunity to respond to our "anonymous group's concerns". Our confederate then recited one of four

carefully composed scripts that differ in the degree of threat inclusion and provided secondary reinforcement of the source (i.e., in-group or out-group member) of the representative speaker (See Appendix B for all four statements).

Composition of these scripts was assessed by several senior psychology students, some of whom were members of student organizations of interest. After several alterations, this focus group concluded that the statements represent a realistic and hostile criticism of another organization, but was general enough to apply to groups with different ideologies. To ensure that the presentation of the messages was as consistent as possible, confederates represented undergraduate students with previous acting experience who spent several hours rehearsing the manipulation scripts. Every attempt was made to ensure that confederates presented the script and its contents with a similar degree of upset, vocal tone, and non-verbal behavior.

The content of these scripts were identical with the exception of the extent to which they accused the entire group of inappropriate behaviors, close-mindedness, and elitism (high-inclusion), or only accused a few members of the group of these traits (low inclusion). Furthermore, during sessions where the confederate represented a group that was similar to the participant's organization, participants recited one initial sentence: "First of all, I would like to say that I am (a) xxxx like the rest of you." For example, when presenting the message to a fraternity, the confederate would state that he is a member of a fraternity like the rest of the participants. These statements served as a reminder to participants that the representative belonged to a similar group and represents the secondary reinforcement of source in our manipulation procedure.

However, it should be noted that the gender of our confederate speaker was not random due to the nature of the groups being assessed. For instance, it was not viable to present a female confederate as an in-group speaker to a fraternity or a male as an in-group speaker to a sorority. Although this presents a potential confound of gender with source of the message, this confound is addressed in several ways. Most importantly, gender should not theoretically override group membership salience in this type of experiment. Turner et al. (1987) suggests that more inclusive groups override broader contrast groups such as age or gender. Indeed, differences in bias due to gender in some ways represent a subordinate part of a particular group's overall ideology towards other groups. However, certain precautions and preliminary analyses were employed to examine any potential effect that gender had towards contributing to results. These precautions are described in subsequent sections.

After completion of the statement by the confederate, participants were instructed to hold their questions or concerns and complete section B where there is an opportunity to write their responses to the statement after completing the required measures described below.

In-group bias: Jackson and Smith (1999) and Luhtanen and Crocker (1992). Semantic differential scales were employed in the pre-manipulation, manipulation, and post-manipulation phases of the experiment. Several polar adjectives (inferior/superior, uncreative/creative, unhelpful/helpful, unfriendly/friendly, uncooperative/cooperative, ignorant/knowledgeable, close-minded/open-minded, unjust/just, incorrect views/correct views) were rated on 13 point scales anchored at +6 (*positive adjective*) to -6 (*negative adjective*). In the pre-manipulation phase, participants rated their own group, and the

confederate actor who presented the manipulation message. During the manipulation phase, individuals again rated the speaker on these adjectives. Finally, these scales were completed again after being informed that the message was fictitious. Reliability (α) for these semantic differential items was greater than .90 for all scales.

Two scores of bias were obtained in the present study representing a change in bias after the manipulation, as well as the degree of bias that remained after participants were informed that the statement provided to them was untrue. *Manipulation*-bias was created by subtracting participants' ratings of their own group from ratings of the speaker after he or she had presented the message. Summed positive scores from these adjectives indicate that the spokesperson is viewed as having greater degrees of positive qualities when compared to the participant's group. Negative scores from these adjectives indicate that the spokesperson has less positive qualities compared to the participant's group, indicating in-group bias.

Residual-bias was determined by subtracting our final measurement of bias from manipulation bias. This score represents a shift in bias from the manipulation stage to the post stage of the experiment. This variable was used to examine bias persistence after the nature of the statement as false had been disclosed. Summed positive scores from these adjectives indicate that the spokesperson is viewed as having greater degrees of positive qualities when compared to the participant's group. Again, negative scores from these adjectives indicate that the spokesperson has less positive qualities compared to the participant's group, indicating in-group bias.

Content Coding Involving the Examination of Central and Peripheral Processing, Positive and Negative Statements, and In-group and Out-group Elaboration Focus of Threat Messages. In order to examine how participants responded to threat messages, they were given the following instructions: "Please list any and all comments or thoughts that you had while listening to the speaker's statements. Please feel free to include any comments about anything related to what the speaker said in the speech, the speaker and the speaker's personality, the topic of the speech, the context in which the speaker spoke, or anything else you might have been thinking about during message presentation, including totally unrelated things" (Mackie et al., 1990, p. 814). Using a coding scheme provided by the same authors, statements were coded in different ways. First, raters assessed the number of sentence statements made on the argument presented by the speaker (A) or personal characteristics of the speaker (S) as an example of predominantly peripheral or central processing. In order to assess the focus of elaborative statements, statements were analyzed as to whether they refer to the in-group (I) or out-group (O). In this manner the responses of participants were examined in terms of whether the defense of the in-group represents a focus on the group to which the participant belongs or a focus on the speaker presenting the message. Third, in order to examine the positive or negative content of the response message, sentences were coded as either positive (+), negative (-), or neutral (N).

Measures of these three ratings were created by summing the number of argument focused statements, in-group focused statements, and negative statements and then dividing each participant's score by the total number of statements made. Thus, three variables, *Argument%*, *Group%* and *Negative%* represent the respective percentage

of these components in a participant's response. Greater percentages of any of these variables represent an overall greater percentage of that component within the overall response. Note that in the case of Argument% and Group%, the remaining percentage not accounted for by these variables represents respectively, peripheral statements% and statements focused on the speaker or the speaker's anonymous group.

Post Assessment and Debriefing

Upon completion of the manipulation packet, participants were informed that this procedure was fictitious and that our speaker did not represent any actual student group. Before explaining the full purpose of the experiment, participants were given a short closing packet that contained all of the dependent measures with the exception of the open-ended responses, in order to rate their perceptions of the individual after they were informed that the information presented was not accurate and fictitious (See Appendix C for specific scales). Upon completion of this packet, participants were informed of the actual purpose of the study (See Appendix B for procedural script). An extended discussion followed where the principal investigators address any potential negative feelings that had arisen as well as the usefulness of the experiment for individuals and the group to which they belonged. Discussion topics included previous findings in persuasion and conflict and how the experimental experience, as well as these findings, could serve as useful tools in potential future conflicts. The experimental session did not end until participants indicated that they were aware of the true aims of the experiment and demonstrated positive affect in their behaviors (e.g., smiles, laughing). Finally, participants were asked not to disclose the nature of the experiment to others for the remaining period of assessment. Subsequent contact with group leaders,

approximately two to three weeks after assessment, did not indicate any specific incidents of resentment, anger, or emotional perturbation from themselves or their group members.

CHAPTER III

RESULTS

Overview and Hierarchical Linear Model Design

HLM is a method of analysis that examines nested data in tiers, or levels (Nezlek & Zyzniewski, 1998). In general, HLM analyzes data based on two (or more) levels where each subsequent level depends on the outcome of the previous level with regards to its particular effect. HLM has been used in the social sciences to examine student and classroom behavior, (Bryk & Raudenbush, 1992), dyadic pair behavior (Cronin, 1994; Nezlek, 2001) and is well known for its use in longitudinal studies (O'Connor, 2004). Unlike ordinary least squares estimates of data (e.g., ANOVA), HLM employs an iterative method based on maximum likelihood estimates (MLE; Bryk & Raudenbush, 1992), which in essence, fits probability distributions to data. Thus, similar to other iterative techniques such as structural equation modeling, HLM presents models of results that are designed to fit the data.

There are several benefits to using HLM, particularly within the current analysis. First, unlike OLS techniques, HLM relaxes the independence assumption between subjects. Whenever data is collected within any sort of group, or is not collected individually, certain environmental constants, such as temperature, group membership, or general atmosphere may create an interdependent effect within a particular group. As a result, most authors recommend the use of group level as the focus for these types of

analyses (see Silverman & Solmon, 1998). Second, group level analysis alone does not address the variability and individual level response of the participants. Likewise, it does not provide for unique contributions to the data due to individual response. This distinction between subject and group effects is particularly relevant to social identity. Social identity is conceived as a subject level variable that is affected by the norms of one's group (Ellemers, Spears, & Doosje, 1997; Tajfel & Turner, 1979; Turner et al., 1987). HLM accounts for both subject and group levels of analysis by making group level analysis dependent upon subjects within the group. Each group represents an individual regression slope that is created by the subjects within the group. Each of these slopes is then weighted with regards to its reliability, which is a function of the group's sample size as well as how much subject level data is responsible for genuine variance of the outcome variable. In addition, HLM provides estimates of variability for both subject and group levels of analysis, thus allowing for an accurate examination of where the majority of variation occurs.

When using HLM to specify a model based on observations, several issues of fit and design should be addressed. In regards to the latter, the current study employed a two-level model where individual subjects within groups were represented at Level 1 and group outcomes due to the 2 X 2 manipulation of source and inclusion were represented at Level 2. This general 2-Level model was employed for each relevant dependent variable of interest. However, models must further be specified due to a variety of theoretical possibilities that best fit the data. In this particular case, although Level 2 variables are non-random manipulations of the group in question, predictor variables at Level 1 are specified as random. As such, a series of tests are traditionally performed to

determine (a) the amount of unpredicted group and subject level variation within the dependent variable, (b) the amount of variation accounted for by subject level predictors alone, and (c) the amount of variation accounted for by subject and group level variables.

The issue of fit in this case is tested by a series of models in which Level 1 variables are set as random, examined, and the models are compared in terms of a significant increase or decrease of overall fit. Thus, for each outcome dependent variable, methodology used from Bryk and Raudenbush (1992) was employed that represents a series of three models that determine the best fit for the variability of the data. As variability may be constant for one outcome variable and a particular predictor, but not another variable, these models were employed for each dependent variable of interest. Essentially, three models, the Unspecified Model, Slopes as Outcomes Model, and Means and Slopes as Outcomes models were examined for each principal analysis.

The Unspecified Model is the equivalent of a one-way ANOVA with random effects where Level 1 is denoted as:

1.1 $$[\, Y_{ij} = \beta_{0j} + r_{ij} \,]$$

The outcome of any particular participant's Y_{ij} is a function of β_{0j} (the intercept or mean outcome of j groups) and r_{ij}, which is the error term representing an unique effect of the individual subject. The Level 2 model is denoted as:

1.2 $$[\, \beta_{0j} = \gamma_{00} + \mu_{0j} \,]$$

For this equation, β_{0j} is calculated by the effect of γ_{00} representing the grand mean between groups, and μ_{0j} is the random effect between these groups. An examination of a model specified in this manner does not test specific predictors or hypotheses. Rather, it provides an estimation of within and between variation, demonstrating where the majority of variation occurs. As an example, use of these equations for the outcome variable of in-group bias would demonstrate the amount of bias variability that resides at the subject level, as well as the amount of bias variation that resides between groups.

The Slopes as Outcomes Model represents a general model where individual predictors are placed within the Level 1 model, but manipulations as represented by inclusion and source are excluded. This model provides a general relationship between the Level 1 predictors and the Level 2 outcome or dependent variable. For this model, the Level 2 model is the same as before:

2.1 $$[\beta_{0j} = \gamma_{00} + \mu_{0j}]$$

The Level 1 model, however, is altered to include one or more Level 1 predictors.

2.2 $$[Y_{ij} = \beta_{0j} + \beta_{1j}(X_{ij} - X_{.j}) + r_{ij}]$$

In this equation, β_{0j} remains as the intercept, and $\beta_{1j}(X_{ij} - X_{.j})$ represents the inclusion of a predictor term that is multiplied by the difference of individual scores within a group minus the group mean. In essence, this model allows for the Level 1

prediction of Level 2 outcome variables without the context of Level 2 group manipulations. Note that multiple predictors can be placed in this model with the addition of $\beta_{.ij}$ prediction variables. Using our previous example, β_{1j} would represent individual participants' identity scores towards the prediction of in-group bias without the effect of either inclusion or source manipulations at Level 2.

Finally, the Means and Slopes as Outcomes model examines both the intercepts of the model as well as the slopes for each group. Level 1 data is represented in the same way as equation 2.2:

3.1 $$[Y_{ij} = \beta_{0j} + \beta_{1j}(X_{ij} - X_{.j}) + r_{ij}]$$

However, including Level 2 predictors creates two separate equations for each β_{ij} predictor representing the individual contributions of slopes within groups, as well as mean variation. Thus for the Level 1 example, two Level 2 equations are presented:

3.2 $$[\beta_{0j} = \gamma_{00} + \gamma_{01} W_j + \mu_{0j}]$$

3.3 $$[\beta_{1j} = \gamma_{10} + \gamma_{11} W_j + \mu_{1j}]$$

In equation 3.2 the intercept, β_{0j}, is a function of γ_{00}, which represents the grand mean for any outcome variable and γ_{01}, which represents the difference in means of W_j, a nominal indicator variable. The last term, μ_{0j} represents the unique effect of a particular group while holding W_j constant. In equation 3.3 the predictor variable, β_{1j}, is the

function of $\gamma_{1\,0}$, which represents the average slope of the predictor variable and $\gamma_{1\,1}$, which is the mean difference of slopes between the indicator variable W_j. Finally, μ_{1j} represents the unique effect of a particular group on the slope of the predictor variable while holding W_j constant.

In equations 3.2 and 3.3 above, only one indicator variable is placed at Level 2. However, in the majority of analyses that follow, *two* Level 2 indicators are placed representing the effects of inclusion and source. Substituting these titles for the W_j's, a general model for subsequent HLM analyses is constructed in equations 4.1, 4.2, and 4.3.

4.1 $$[(D.V.) = \beta_{0j} + \beta_{1j}\,(\text{Predictor Variable}) + r_{ij}]$$

4.2 $$[\beta_{0j} = \gamma_{0\,0} + \gamma_{0\,1}\,(\text{Inclusion}) + \gamma_{0\,2}\,(\text{Source}) + \mu_{0j}]$$

4.3 $$[\beta_{1j} = \gamma_{1\,0} + \gamma_{1\,1}\,(\text{Inclusion}) + \gamma_{1\,2}\,(\text{Source}) + \mu_{1j}]$$

The selection of the model that best fits the data involves comparison of the deviance statistic between models. The significant increase or decrease in fit is determined by a χ^2 distribution. These comparison models will be compared to the overall hypothesized models to determine overall fit. In order to save space, only the distribution of variance presented in percentages will be stated for the Unspecified Model in order to give readers basic information about where variance is distributed in the model. Similarly, only deviance statistics, as well as inclusion or removal from a model

will be reported, whereas the best fitting model will be defined in detail within each section.

Finally, some measures will consistently serve as variables across all of the analyses. At Level 1, the personal identity sub-scale of the CSE will serve as a predictor of Level 2 variables representing identity invested in the group. In addition, dummy codes representing an individual's group affiliation will be placed (if applicable) in order to detect and control for any individual effects due to group affiliation. As with most model programs, effect codes that do not show significant differences will be removed from the model to conserve Level 1 degrees of freedom. At Level 2, inclusion of the threat and source of the threat as an in-group or out-group member represent our manipulations, but each model is tested for the viability of an Inclusion X Source interaction term to be placed within the Level 2 model. In cases where fit is significantly improved and the interaction term is significant, this term is placed in the Level 2 model. In cases where these conditions are not met, the term is excluded.

Mean Differences and General Slope Prediction: Effects of Group Mean Centering

Note that the majority of predictive Level 1 (or subject) variables are *group mean centered.* This centering method subtracts the mean of an individual subject within a group from the group mean (e.g. [$score_{ij} - groupscore_{.j}$]) for each group. The result of this centering method results in the intercept representing the mean of each group in a regression equation. These means are then effectively ignored creating an overall metric where 0 represents the average score within all groups, and positive and negative scores represent deviations of the predictor from that average (Bryk & Raudenbush, 1992).

Practical interpretation of a variable that has been group mean centered provides an "average" slope, demonstrating the relationship of the predictor to the dependent variable regardless of where the mean score for a particular group might reside. Thus, Y in the regression equation becomes a general variable where for any mean value of Y, the regression equation provides a general prediction of how the predictor variable in question is associated with Y. This method of interpretation is useful for this type of analysis where pre-existing groups may exhibit differing mean degrees of a particular predictor variable due to pre-existing conflicts or inherent politics inherent to the target group. Thus, results and figures provided for predictor variables represent the average slope of a predictor variable regardless of its mean differences.

Mean differences are represented by γ_{0}. analyses, demonstrating how between variation of the dependent variable due to the manipulations created differences in the variable in question. An examination of these two analyses involving mean differences *and* average slopes of predictors demonstrate mean variation due to the manipulations, and how, on average, the predictor variables behave towards explaining the mean differences across groups.

Environmental, Contextual, and Manipulation Checks

Although HLM is designed to account for within group commonalities due to environment, it does not specifically address what these sources represent. Because the nature of this study involves an environmental examination of pre-existing groups that is not conducted within a laboratory, potential confounds are examined due to the design of the study as well as the overall perceptions of participants of their group and the threat scenario. This is important for three reasons. First, because of the nature of the design,

some components such as gender of the confederate could not be held constant. To that extent, it is worthwhile to examine if any differences did exist that are subsequently controlled for by using HLM. Second, relevant data that defines how participants perceived their group within the experimental experience helps to define an environmental context by which these results can be compared to relevant "real-life" group conflict scenarios. Similarly, it also helps to define what type of group (e.g., a positively viewed group versus a less esteemed group) to which these findings are most likely to apply. Third, because studies have not undertaken social identity research of this nature, data regarding participants' perceptions helps to further place and connect the current findings with a well-established previous body of literature.

Overall Believability

Belief was assessed by two principal sources. First participants who responded negatively to "Before we told you that the representative presented fictitious information, did you believe that his/her statement came from another student organization?" were removed from the sample. Second, any participant whose written response indicated that the participant questioned the nature of the speaker as coming from an "anonymous student organization" was also removed from analysis. Overall 237 participants participated across 12 groups; however, 16 were removed because they were group leaders who were previously informed of the study. Of the remaining 221 subjects, 180 represented subjects who "believed", demonstrating an 81% overall belief rate across groups. Thus, all analyses regarding hypotheses, manipulation checks, or descriptive data, represent participants who believed in the experimental scenario.

Potential Differences in Bias and Persuasion due to Actor Gender

Some categories of groups necessitated a particular gender to perform as either an in-group or out-group member. For instance, a male confederate speaker could not perceived as an in-group member of a sorority. In order to examine potential differences due to the gender of the confederate actor, several t-tests were conducted with the initial rating of the speaker. These ratings were analyzed because they are only influenced by the first manipulation of the source of the message by presenting the speaker as a representative from a group that is similar or different from the participant's organization. As a result, the inclusion condition can be collapsed with regards to these analyses. Secondly, and more importantly, these ratings represent first impressions of the speaker which may be more likely to detect inherent gender bias without the influence of other manipulations that are created later in the scenario.

However, gender was not fully crossed with the model because opposite sex confederates with fraternities and sororities would invalidate specific cells (e.g., a female claiming to be a fraternity member). Therefore, specific subsets of the sample had to be compared to examine potential bias differences due to gender of the actor. A split file t-test analysis was conducted separating gender of the actor within in-group and out-group manipulations. In other words, within both in-group manipulation groups and out-group manipulation groups, initial male and female speaker ratings were compared for each gender receiving the message.

Results within the in-group manipulations indicate that female actors were rated equivalently by both men and women (Male = 6.9 versus Female = 7.3, $t(1,39.9) = -1.31$, $p = .19$), but male actors were rated significantly better by female participants compared

to males (Female = 8.8 versus Male = 7.2 ; $t(1,32) = -2.60, p = .01$). Results for organizations provided with an out-group speaker could only be compared with female actors, as male actors were not available for these groups. Results indicate that men and women again rated female actors equivalently (Male = 7.35 versus Female = 7.18, $t(1,75) = .535, p = .60$).

In sum and with the analyses available, results do not indicate any influence due to what is typically considered sexist or misogynistic ideology that would result in female actors being rated more negatively by men compared to women. However, male actors were rated more positively by female participants. Because this specific finding with females actually contributes to a more conservative analysis, and because HLM accounts for differences in slopes across groups, gender was not controlled for in the model.

Participant's Perception of Group Membership and Message

The following perceptions represent participants' beliefs about their organization as well as their sense of prototypicallity before the manipulation was presented, but after participants were fully informed that another organization had disapproved of them. Overall, participants reported that their beliefs and actions were very typical of the groups' beliefs and actions ($M = 9.33, SD = 2.29$)

In contrast to relatively positive beliefs about group membership, participants' ratings were negative for the presented message. Out of a possible positive score of 13, participants did not like any of our 4 manipulation messages ($M = 2.73, SD = 2.32$), and did not rate the content of the message as convincing ($M = 3.75, SD = 3.05$) or representing quality arguments ($M = 4.47, SD = 2.95$). In essence, participants accurately perceived that the message presented to them was not a well thought out argument, but

rather represented an emotional presentation that blatantly accused the group of elitist behavior.

Perception of Source

Several questions were embedded in the survey to determine the perception, if any, of our manipulations. With regards to participants' perception of the messenger as an in-group or out-group member, there was no significant difference between how similar participants perceived themselves to the in-group speaker compared to the out-group speaker (5.88 versus 5.59, $t(1,179) = .705$, $p = .42$). However, participants did report overall greater degrees of anger (8.0 versus 5.8, $t(1,179) = 3.88$ $p = .000$) and emotional upset (8.9 versus 7.2, $t(1,179) = 3.12$, $p = .002$) in the in-group condition compared to the out-group condition. Similarly, participants demonstrated a trend towards liking the message less so from an in-group member (2.4 versus 3.0, $t(1,179) = -1.77$, $p = .09$). Although the source manipulation did not seem to alter participants' feelings of similarity towards the speaker, greater upset and less liking strongly suggest a "black sheep" effect. More specifically, the speaker's perceived membership in a similar group resulted in feelings of betrayal, and subsequently worse ratings compared to an out-group member (Hornsey & Imani, 2004).

Perception of Inclusion

Mean scores were calculated between groups where only a few members of a group (low inclusion) are accused versus the entire group (high inclusion) for the following survey question, "To what extent do you think that the speaker's statements apply to everyone in your group?" Results showed that participants perceived the message as more applicable or likely when the threat applied to only a few members of

Preliminary Analyses: Identity and In-Group Focused Elaborations.

Our second series of preliminary analyses concerns any relationship between the identity of an individual participant towards a particular organization and the degree of in-group related statements made (H10). In order to examine the general relationship a Pearson correlation was performed. Results indicated no relationship between the variables (r = -.068 p = .36). However, similar to our analysis with identity and argument statements, any potential correlational relationship could be confounded by differential association between identity and group focused statements due to the different conditions presented to participants across groups. Again, a 2-Level HLM model was employed to test this possibility, which more importantly, allows us to examine if in-group focused elaborations significantly differ due to manipulation conditions of source and inclusion (H9).

Preliminary Fit of HLM Model: Group-Focused Statements. Examination of an unspecified HLM model indicates an ICC (r) of .077 indicating that approximately 8% of variation for in-group focused statements resided between groups. The Muthen et al., (2006) statistic for sufficient between group variation yielded a score of 2.08, (> 2.00) indicating barely sufficient variation to use HLM in subsequent analyses. Reported deviance for the unspecified model was 70.27.

Inclusion of identity as a predictor in the model did not significantly reduce model deviation (70.27 versus 69.02, χ^2 (1,11) = 1.24, p = .27). Inclusion of Level 2 predictors similarly did not produce a significant reduction in deviance (69.02 versus 67.43, χ^2 (4,8) = 1.58, p > .50). Thus, neither the inclusion of identity nor the addition of

inclusion and source significantly improved the fit of the HLM model. However, these terms were retained in the model to demonstrate general hypotheses.

Identity, Inclusion, and Source as Predictors of Group Focused Statements. In order to examine the potential effects of identity, inclusion, and source as mediators of group focused statements a two level HLM model was employed with identity as a subject level predictor, and inclusion and source as Level 2 predictors. Reliability for this model was .44, and approximately 92% of the between level variation and 7% of total model variation was explained with the addition of these predictors to the model. Both HLM and OLS results are reported in Table 6.

TABLE 6

HLM and OLS Estimates of Identity, Inclusion, and Source Towards Predicting Group Focused Statements

	HLM				OLS			
Fixed Effect	Coefficient	*S.E.*	*t*-ratio	*p*-value	Coefficient	*S.E.*	*t*-ratio	*p*-value
LEVEL 2 Intercept β0								
INTRCPT2, γ00	0.47	0.05	8.64	0.000	0.45	0.03	11.61	0.000
INCLUS, γ01	-0.07	0.06	-1.21	0.258	-0.07	0.04	-1.66	0.098
SOURCE, γ02	0.01	0.06	0.17	0.865	0.03	0.04	0.74	0.456
LEVEL 1Identity β1								
INTRCPT2, γ10	-0.01	0.03	-0.30	0.764	-0.01	0.03	-0.29	0.771
INCLUS, γ11	-0.00	0.03	-0.14	0.887	-0.00	0.03	-0.13	0.891
SOURCE, γ12	-0.01	0.03	-0.39	0.694	-0.01	0.03	-0.38	0.702

Final estimation of variance components:

	S.D.	s^2	χ^2	*p*-value
Level-2,	0.07	0.006	22.13	.009
Level-1,	0.29	0.081		

Regarding both main effects and identity as a subject level predictor, results did not indicate any significance regarding identity and group focused statements. As such, in-group focused statements did not significantly differ due to salience manipulations, and identity did not significantly predict group-focused statements. Given the small amount of between group variation, examination of subject level analyses confirms these findings, where significant differences were not demonstrated in the subject level model.

Primary HLM Model: Identity, Group%, and Arg% as Predictors of Negative and Positive Responses

Preliminary Fit of HLM Model: Negative Statements. The examination of an unspecified HLM model with negative statements presented as an outcome variable indicated an ICC (r) of .16, meaning that 16% of variation for negative statements resides between groups. Applying the Muthen et al., (2006) formula for sufficient between group variation provides a score of 3.23, indicating sufficient variation to use HLM in subsequent analyses. Reported deviance for the unspecified model was 97.38.

Inclusion of identity, argument centered statements, and in-group focused statements, subject level predictors produced a significant reduction in model deviation (97.38 versus 62.24, χ^2 (1,11) = 35.53, p = .001). The inclusion of Level 2 predictors of inclusion and source also significantly reduced model deviation (62.24 versus 44.30, χ^2 (4,8) = 17.93, p = .02). Thus, in each step the addition of both Level 1 and Level 2 predictors of negative statements increased the overall fit of the model.

Finally, the inclusion of an interaction term of Inclusion X Source examining mean differences did significantly reduce variation (44.30 versus 40.03, χ^2 (1,12) =

.3.79, p =. 05), and the interaction term was significant (p = .02). However, reliability for this model was exceedingly low (.001) indicating a very poor fit. As such, the interaction term for this model was removed from the analysis, but the reader is cautioned that a 2-way interaction of inclusion and source with regards to negative statements is likely, but untenable as a fitted variable in the HLM model.

Primary HLM Model: Identity, Arguments, and Group Focused Statements as Predictors of Negative Statements.

In order to examine the potential effects of identity, argument centered statements made, and group centered statements made, inclusion, and source as predictors of negative statements made, a two level HLM model was employed with identity, argument centered statements, and group centered statements as a subject level predictors, and inclusion and source as Level 2 predictors. This primary HLM model will address whether or not (H4) central processing is inversely related to the amount of negative statements made, (H5) out-group manipulations produce more negative statements compared to in-group manipulations due to central and peripheral processing, (H6) low inclusion manipulations produce less negative statements compared to high inclusion manipulations due to central and peripheral processing, (H7) identity is inversely related to the amount of negative statements made, (H8) in-group focused statements are inversely related to the amount of negative statements made, and (H11) in-group focused elaborations differentially predict the amount of negative statements made due to salience manipulations. Reliability for this model was .52, and approximately 62% of the between level variation, and 10% of total model variation was explained with

the addition of these subject level persuasion and identity predictors to the model. The outcome of both HLM and OLS predictive analyses are reported in Table 7.

TABLE 7

HLM and OLS Estimates of Identity, Argument %, Group %, Inclusion, and Source Towards Predicting Negative Statements

	HLM				OLS			
Fixed Effect	Coefficient	*S.E.*	*t*-ratio	*p*-value	Coefficient	*S.E.*	*t*-ratio	*p*-value
LEVEL 2 Intercept β0								
INTRCPT2, γ00	0.34	0.05	6.12	0.000	0.37	0.03	10.09	0.000
INCLUS, γ01	0.12	0.06	1.92	0.086	0.14	0.04	3.49	0.001
SOURCE, γ02	-0.02	0.06	-0.35	0.732	-0.07	0.04	-1.79	0.074
LEVEL 1Identity β1								
INTRCPT2, γ10	0.03	0.03	1.10	0.271	0.03	0.03	1.05	0.292
INCLUS, γ11	0.02	0.03	0.79	0.426	0.02	0.03	0.76	0.446
SOURCE, γ12	-0.07	0.03	-2.22	0.028	-0.07	0.03	-2.12	0.035
LEVEL 1Argument β2								
INTRCPT2, γ20	-0.33	0.14	-2.39	0.018	-0.33	0.14	-2.29	0.023
INCLUS, γ21	0.46	0.17	2.62	0.010	0.46	0.18	2.50	0.013
SOURCE, γ22	-0.36	0.17	-2.03	0.043	-0.36	0.18	-1.95	0.052
LEVEL 1Group Sts β3								
INTRCPT2, γ30	-0.40	0.14	-2.84	0.005	-0.40	0.14	-2.72	0.007
INCLUS, γ31	0.06	0.16	0.38	0.700	0.06	0.16	0.36	0.712
SOURCE, γ32	0.17	0.16	1.06	0.290	0.17	0.16	1.01	0.311

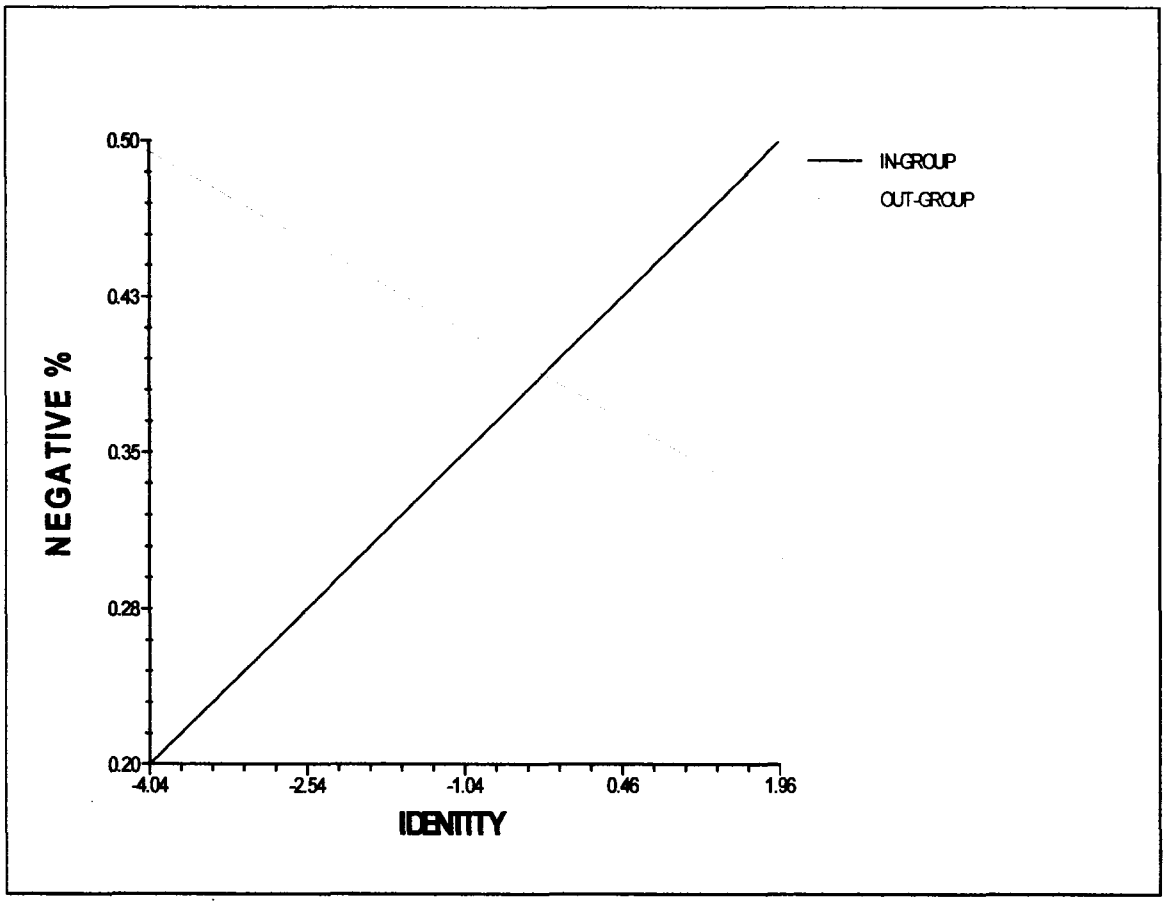
Final estimation of variance components:

	S.D.	s^2	χ^2	*p*-value
Level-2,	0.08253	0.00681	17.93	.02
Level-1,	0.22645	0.07100		

Regarding mean differences, results only indicated a trend ($\gamma = .12, p = .086$) for inclusion. This finding indicates that high inclusion messages tend to demonstrate greater amounts of negative statements, in partial support of our hypotheses regarding expected mean differences in negative statements due to salience manipulations (H6). However, results also demonstrate that out-groups and in-groups do not affect the amount of negative statements produced (H5).

Contrary to our hypotheses, identity was not a significant general predictor of participants' negative statements (H7), but results indicate a significant interaction between identity and the source of the message towards predicting negative statements ($\gamma = -.07, p = .028$).This interaction can be seen in Figure 2. As the figure demonstrates, participants within groups who perceived the speaker as an in-group member demonstrate a strong tendency towards greater amounts of negative statements regarding the speaker or argument depending on participant's greater or lesser degrees of identification with the group in question. In stark contrast, individuals within groups who were presented a statement by an out-group member tend to present less negative statements in association with greater amounts of individual identity.

FIGURE 2. *Figure of the Interaction of Identity and Source Towards Predicting Negative Statements.*



With regards to argument centered statements, results indicate a significant overall relationship with negative statements made (γ = -.33, p = .018) indicating that as less argument centered statements are made (and person oriented statements increase), greater amounts of negative statements are presented (H4). This general relationship is qualified by two significant interactions of argument centered statements for both inclusion (γ = .46, p = .01) and source of the message (γ = -.36, p =.043). These interactions can be seen in Figures 3 and 4.

As can be seen in Figure 3, negative statements decrease as arguments increase when individuals within groups received a threat regarding only a few specific members in their organization. In contrast, those who heard a high inclusive statement threatening the entire group showed an essentially constant degree of negativity regardless of the degree of statements that focused on the argument made. This finding confirms that central and peripheral processing differ as a function of inclusion (H6).

With regards to source of the message, Figure 4 shows that when a message was presented by an in-group member, negative statements only slightly decreased as statements focusing on the arguments of the message increased. In contrast, when the message was presented by an out-group member, negative statements sharply decreased as participants focused on argument orientated statements. This finding confirms that central and peripheral processing differ as a function of source (H5).

FIGURE 3. *Figure of the Interaction of Argument % and Inclusion Towards Predicting Negative Statements.*

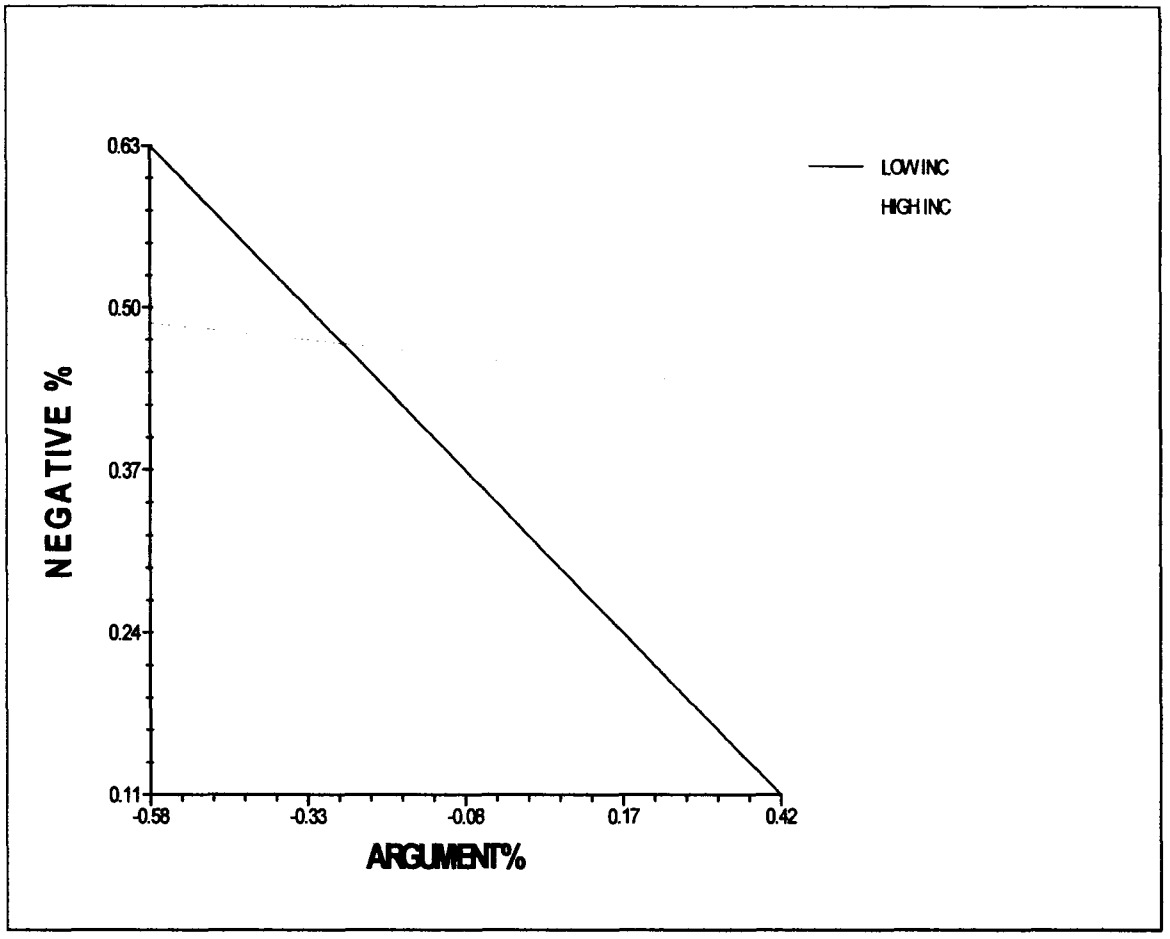
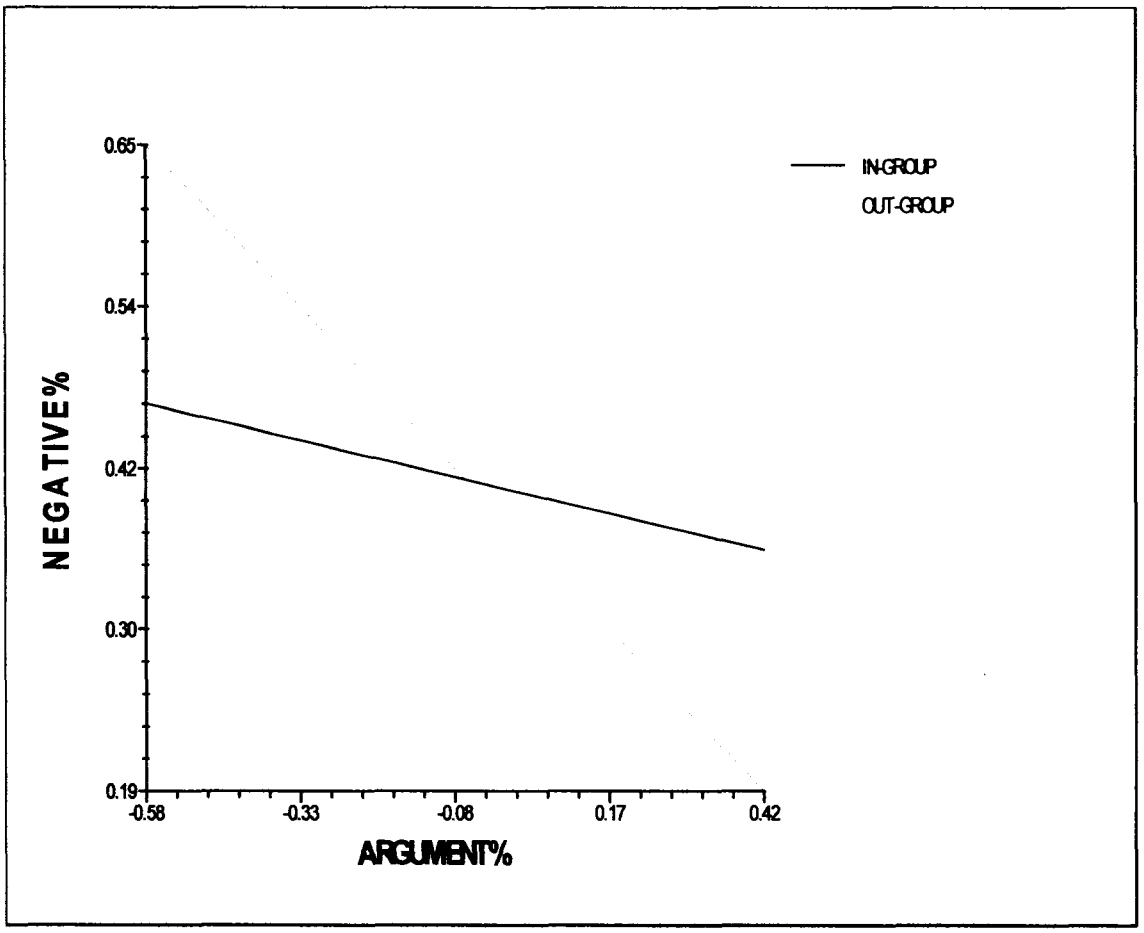


FIGURE 4. *Figure of the Interaction of Argument % and Source Towards Predicting Negative Statements.*



Finally, group focused statements demonstrate a significant predictive relationship with negative statements ($\gamma = -.40, p = .005$) indicating that as group focused statements decrease, (and out-group focused statements increase) negative statements increase (H8). Neither inclusion or source interacted with group focused statements disconfirming our expectation that in-group focused statements would differentially predict negative statements as a function of the current studies salience manipulations (H11).

Results Section 3: Persistence of Belief and Value; Identity, Inclusion, Source

Preliminary Analysis of Group Differences

In order to examine potential group differences due to group type, our final series of one-way ANOVAs were conducted within each manipulation type for residual bias and value. Again Tukey post-hoc tests were employed to determine any significant differences within manipulation types. For residual bias only the high inclusion/out-group condition was significant ($F(2,35) = 4.423, p = .019$). Subsequent examination of the groups within this condition indicate that the advocacy group in this condition retained significantly more bias than either the fraternity or religious group (-4.369 versus -3.058 and -0.389, p's = < .05). For residual value, only the high inclusion/out-group condition approached significance ($F(2,57) = 3.008, p = .057$). Subsequent examination of the groups within this manipulation indicated that the sorority within this group had more positive scores regarding value of their own group compared to the advocacy group within this condition (.265 versus -1.400, $p = .048$). No other differences were evident or significant. Again, due to a lack of significant differences and consistent differences across conditions, no dummy codes were created for subsequent analyses.

General Analyses: Does Bias and Value Persist?

In order to examine our general belief persistence hypotheses that bias persisted after participants were informed of the non-veridical nature of the statements, I employed two subject level repeated measures t-tests examining initial ratings of the speaker versus post-ratings of the speaker. Likewise, initial ratings of perceived group value were tested in the same manner against post manipulation ratings of perceived group value. These tests examine whether or not (H12) bias persisted after participants were informed of the fictitious nature of the threat, and (H13) if reduction in perceived value reverted back to initial pre-threat levels.

Results indicate that ratings of the speaker slightly, but significantly, increased after being informed that the statement was fictitious (7.37 versus 7.80, $t(1,179) = -2.664$, $p = .008$) indicating that bias did not persist, but actually lessened compared to initial ratings (H12). Conversely, results indicate that participants reported significantly less belief in the inherent goodness or "value" of their group (10.22 versus 9.92, $t(1,179) = 2.111$, $p = .04$), indicating a reduction of group value that persisted from the manipulation ratings (9.95 versus 9.92, $t(1,179) = .234$ $p = .815$), despite information discrediting the message presented (H13). Note that these significant differences represent very small changes in ratings, and as such should be viewed cautiously in terms of practical implications.

Exploratory Analyses: Identity, Inclusion, and Source Towards Predicting Remaining Bias and Value

Preliminary Fit of HLM Model: Residual Bias. Examination of an unspecified HLM model indicates an ICC (r) of .08 indicating that 8% of variation for residual bias

resides between groups. Applying Muthen et al.'s, (2006) formula for sufficient between group variation provides a score of 2.12, indicating sufficient variation to use HLM in subsequent analyses. Reported deviance for the unspecified model was 825.26.

Inclusion of identity as a predictor to the model produced a significant reduction in model deviation (825.26 versus 820.35, χ^2 (1,11) = 4.90, p = .02), however, inclusion of Level 2 predictors did not produce a significant reduction in deviance (820.34 versus 816. 74, χ^2 (4,8) = 3.57, p > .50). Thus, both the predictor only model and the full model including both identity and inclusion and source towards predicting residual bias are significantly better fits than the unspecified model, but the addition of inclusion and source do not significantly contribute more so than just identity as a predictor. Finally, the inclusion of an interaction term of Inclusion X Source did not significantly reduce variation (816.77 versus 816.73, χ^2 (1,11) = .04, p > .50), and was not significant (p = .70). As such, the interaction term of inclusion and source was not included in the subsequent model.

Primary HLM Model: Identity, Inclusion, and Source as Predictors of Residual Bias

In order to examine the potential effects of identity, inclusion, and source as mediators of residual bias a two level HLM model was employed with identity as a subject level predictor, and inclusion and source as Level 2 predictors. Reliability for this model was .33, and approximately 60% of the between level variation, and 5% of total model variation was explained with the addition of these predictors to the model. Both HLM and OLS results are reported in Table 8.

TABLE 8

HLM and OLS Estimates of Identity, Inclusion, and Source Towards Predicting Residual In-Group Bias

	HLM				OLS			
Fixed Effect	Coefficient	*S.E.*	*t*-ratio	*p*-value	Coefficient	*S.E.*	*t*-ratio	*p*-value
LEVEL 2 Intercept β0								
INTRCPT2, γ00	-1.69	0.38	-4.35	0.002	-1.77	0.30	-5.75	0.000
INCLUS, γ01	-0.85	0.46	-1.85	0.096	-0.92	0.35	-2.61	0.010
SOURCE, γ02	-0.21	0.46	-0.47	0.648	-0.18	0.35	-0.52	0.601
LEVEL 1Identity β1								
INTRCPT2, γ10	-0.54	0.27	-1.96	0.050	-0.54	0.28	-1.93	0.054
INCLUS, γ11	0.16	0.30	0.54	0.586	0.16	0.31	0.53	0.592
SOURCE, γ12	0.22	0.30	0.75	0.454	0.22	0.31	0.73	0.461

Final estimation of variance components:

	S.D.	s^2	χ^2	*p*-value
Level-2,	.45581	0.20776	20.62	.014
Level-1,	2.30659	5.32035		

Regarding main effects, results only indicated a trend ($\gamma = -.85, p = .096$) for residual bias scores to be lower for groups who received a low inclusion message compared to those groups who received a high inclusion message.

Identity was a significant inverse predictor of residual bias ($\gamma = -.54, p = .05$) indicating that as individual levels of identity for participants increased, subsequent remaining bias towards the speaker was greater. Identity did not significantly interact with inclusion or source for this model.

Preliminary Fit of HLM Model: Residual Values. Finally, in order to determine if the lack of change in value was specifically due to one of our salience manipulations, a 2 Level HLM model was employed to test this possibility. Examination of an unspecified HLM model indicates an ICC (r) of .03 indicating that 3% of variation for residual beliefs about group-value resides between groups. Applying the Muthen et al., (2006) formula for sufficient between group variation provides a score of 1.42 (< 2.00), indicating that between group variation is sufficiently small to use ordinary least squares techniques to examine potential differences in the variables.

Primary HLM Model: Identity, Inclusion, and Source as Predictors of Residual Values

In order to examine the potential effects of identity, inclusion, and source as mediators of residual bias an ordinary least squares model was employed examining identity, inclusion, and source as subject level predictors or residual group value beliefs. Results of the Level 1 analysis are provided in Table 9. Examinations of the results indicate that none of the predictors significantly predicted residual value.

TABLE 9

HLM and OLS Estimates of Identity, Inclusion, and Source Towards Predicting Residual Value

	HLM				OLS			
Fixed Effect	Coefficient	*S.E.*	*t*-ratio	*p*-value	Coefficient	*S.E.*	*t*-ratio	*p*-value
LEVEL 2 Intercept β0								
INTRCPT2, γ00					-0.28	0.24	-1.15	0.251
INCLUS, γ01					0.29	0.28	1.06	0.291
SOURCE, γ02					-0.41	0.28	-1.46	0.145
LEVEL 1Identity β1								
INTRCPT2, γ10					-0.22	0.22	-0.99	0.322
INCLUS, γ11					0.07	0.24	0.30	0.758
SOURCE, γ12					0.27	0.24	1.11	0.265

CHAPTER IV

DISCUSSION

Overall Findings and Comparison of IRT Conditions

The current study examined the well researched theories of Social Identity Theory (Tajfel & Turner, 1979) and Self-Categorization Theory (Turner et al., 1987) within a new environmental context. I examined the process and elaboration of threat messages within realistic settings where individual participants within organizations were exposed to immediate and personally relevant threat messages (e.g., IRT). Our initial assumptions were that previous findings would apply to situations where (a) participants were recruited from pre-existing student organizations from differing ideologies, (b) a threat message was applied in the context of a mediation procedure sponsored by the campus, and (c) the nature of the presented message directly criticized the character and good behavior of the target group. Our specific findings demonstrate that personally relevant threat in realistic situations does not necessarily mimic previous laboratory findings (Brewer, 1979; Tajfel et al., 1971), nor do results necessarily correspond to experimental scenarios where pre-existing associations such as gender or nationality are used as in-groups and out-groups (e.g. Haslam et al., 1992; McGarty et al., 1994; Oakes et al., 1991). Although specific findings and their likely causes are explained in subsequent sections, these findings within the context of an IRT scenario are likely due to one of two new environmental conditions of this study, including pre-existing ideology adherence and personally applied threat.

As discussed previously, one of the recently debated issues within the social identity literature (see Turner & Reynolds, 2003) is the generalizability of SIT and SCT principals of salient contrast in the context of individual difference measures such as social dominance orientation (Pratto et al., 1999). Proponents of the attitude measures suggest that higher or lower concentrations of these individuals serve to mediate or explain the process of bias creation explained by SCT (see Sidanius & Pratto, 1999). In contrast, proponents of SCT have shown that principals of salient contrast will apply generally and broadly across groups and organizations, and attitudinal individual traits function within the context of salient contrast (Schmitt et al., 2003). The current study attempted to explore and validate these SCT findings, by examining the degrees of bias, persuasion, and belief and bias persistence inherent in different kinds of ideological organizations.

Our results, although not definitive by any means, demonstrate that differing ideological groups respond similarly to other groups, at least with regards to threat. Across our dependent variables of bias, persuasion, and residual bias, responses were generally the same for differing types of organizations. Thus, these findings provide initial evidence that in the context of salient contrast between groups (e.g. Haslam et al., 1996; Haslam et al., 1999), differing ideologies and norms are *irrelevant* when examining bias and evaluation of threat. There are several implications to these findings.

A lack of ideological differences in the context of a situation where radically differing types of groups, for instance, a fraternity compared to ideologically dependent groups such as advocacy rights or religious groups, provides general support for SCT principals. In support of Turner et al. (1987) and numerous subsequent studies (i.e.,

Haslam et al., 1995; Haslam et al., 1996; Haslam et al., 1999; Oakes et al., 1991), intragroup differentiation does seem to be a function of the immediate environment and salient contrast, and not pre-existing ideology when dealing with threats from other groups. Similarly, a lack of differences in these findings supports general principals of social identity theory by supporting a general need to maintain a positive image of the group to bolster individual self-esteem.

In contrast, these findings do somewhat rule out a trait explanation of bias, at least in the sense that individual types of groups may contain members that hold specific norms or beliefs that make them more likely to engage in bias and prejudice. However, our findings do not rule out the possibility that individuals within pre-existing organizations may believe in social superiority. Rather, it is likely that either beliefs in inherent superiority do not manifest within IRT salient contrast or that all of these groups contain similar amounts of individuals with these beliefs or similar amounts of these beliefs across groups. As such, further research is necessary to fully explain these findings with regards to specific bias associated traits. Replication of the current study with measures such as social dominance orientation, or perhaps authoritarianism (Altemeyer, 1981; 1988) would provide more definitive results along these lines.

More interestingly, these results do imply some other tentative conclusions involving ideology. One way to interpret these findings is that regardless of the specific ideology, different groups generally respond the same to conflict and threat situations. As such, these results imply that although the individual need to belong to a group is important, the ideological content of group membership is interchangeable with regards to threat. Consequently, each individual's need to belong to a specific group dictates

his/her reaction to threat that is not necessarily due to specific cherished beliefs that promote or inhibit bias. Although current descriptions of identity are defined as superordinate to ideology, these findings support a generalizable component of human nature towards belonging and protecting what is similar or defining to themselves. This need to protect groups that individuals cherish *could potentially vary from individual to individual*, but causes individuals to react the same to others who do not share an in-group's belief. Future researchers may wish to examine the degree to which people need to define themselves by organizations and characteristics, in relation to the differing types of groups that participants select. Should results demonstrate similar reactions towards other groups, regardless of ideologically defining characteristics, then findings would support the concept that ideology is interchangeable, and essentially, all ideologies respond to threat in a similar way. In sum, the current research provides initial evidence that regardless of the content of beliefs as either condoned, supported, currently socially approved or otherwise, groups generally respond the same to threat and conflict.

With regards to immediate and relevant threat, the current study was the first to employ a message that *directly* targeted the well-being and behavior of a group in question. Two overall themes of the research seem evident, due to the implementation of IRT. First, the current research strongly suggests that a primary tenant of SCT, namely situation specific self-categorization (Turner et al., 1987), does in fact operate within pre-existing environmentally valid situations. The overall examination of results regarding bias and persuasion demonstrate that participants will often re-categorize conceptions of in-group and out-group distinctions, not necessarily on established concepts of in-groups and out-groups based on membership, but rather the content of the message that

determines the favorability of another group towards the target group. A simple way to put this is that the "squeaky wheel gets the biased response" regardless of whether or not the message comes from an in-group or out-group representative. There are, however, several caveats with this statement, which are discussed in subsequent sections.

A second theme found is that correlations performed at the subject level, as well as subsequent HLM analyses, do not show a hypothesized relationship between identity and central and peripheral processing, nor does identity relate to the degree of group focused statements made (a premise based on the assumption of salient contrast and high and low identifiers; Branscombe et al., 1999). This finding is unexpected, and several reasons are possible. One potential cause includes differing forms of measurement from how identity and persuasion variables are traditionally defined (these issues are also discussed in relevant sections below). It is also the case that the overall lack of this relationship was not due to IRT conditions. Comparison of traditional statistics with HLM models regarding this relationship suggests that variation due to differing groups is not responsible for the lack of the relationship. Likewise the manipulations did not appear to confound a potential relationship between identity and these other variables.

One potential explanation for these findings suggests a hierarchical relationship between the evaluation of a message, in-group bias and identity. An examination of Table 2 demonstrates that all of our persuasive components that were evaluated (i.e., Negative%, Argument%, and Group%) are significantly related to in-group bias in the expected direction. In contrast, identity (as it was measured in the study) only significantly related to in-group bias. These relationships could suggest that evaluative components of a message are mediated by in-group bias with regards to identity. Thus,

identity predicts trait evaluation of the speaker of a message, but it is the initial opinion of the speaker due to identity, that helps determine the cognitive evaluation and outcomes of what the speaker presents. This explanation is potentially interesting, as it suggests that initial stimulus regarding salient contrast is the first and primary component of message evaluation (as has been argued, see McGarty et al., 1994, for an example) that dictates persuasive outcomes. However, a formal test of this possibility would involve subsequent studies where mediation analyses could be conducted without the confound of differing salience manipulations.

Discussion: In-Group Bias and Pre-Existing Groups

The current examination of in-group bias created in a immediate and relevant threat scenario with pre-existing groups demonstrated several interesting findings, most of which were contrary to our hypotheses. Generally, our findings show that source did not significantly alter the amount of bias generated by groups, although an examination of identity demonstrates differences in the slopes of identity to out-groups and in-groups regarding bias. However, inclusion did produce significant differences in bias, and in the direction expected, where low inclusion threats produced less bias than high inclusion threats.

With regards to source manipulations where messages were presented by either an organization with similar or differing ideologies, the current experiment did not detect significant mean differences. This finding is in direct contrast to early MGP findings (Brewer, 1979; Tajfel et al., 1971) and later research involving more complex and non-monetary exchange designs (Hogg et al., 1995; Turner et al., 1987). However, the current findings do not invalidate previous studies that have consistently demonstrated

differential degrees of bias due to message source. Rather, it is more likely the result of the increased threat conditions of IRT compared to previous research. Previous research has examined more abstract group conditions of nationality, gender, or school membership (Haslam et al., 1995; Oakes et al., 1991). The current study employed a direct and immediate threat towards the "good reputation" of various groups. This type of scenario not only represents what is more typically received by organizations that take stances on religious or political ideologies, but also represents a direct and valid attack on individuals' perceptions of the group to which they belong and the relevant self-esteem derived by their membership (Tajfel & Turner, 1979).

As such, one potential explanation of a lack of bias differentiation between different sources is due to the fact that another organization complaining or criticizing a group will *override* any similarity derived from similar ideologies. In terms of salient contrast and SCT (Turner et al., 1987), salient contrast is viewed as dependent on the situation and also functions under the cognitive mechanisms of comparative and normative fit. As stated previously, Haslam and Turner (1992) demonstrated that Australians rated Americans poorly when they were the only group to contrast against. However, when other groups were present to contrast against, Americans were rated much less poorly, due to other groups' stronger differences from the in-group.

Our lack of mean bias differences due to source manipulation would suggest two levels of abstraction and comparative fit. The less abstract (and immediately relevant) level of salient contrast would represent a criticizing group versus a group being criticized. Salient differentiation in this case is based on strong and salient contrast centered on the beliefs that the target group believes in the goodness of its organization,

whereas the group presenting the message does not. As such, the group in question preserves its sense of self-esteem (Tajfel & Turner, 1979) by differentiating itself from the representative of the other group. The second and more abstract level represents the manipulations that were presented by claiming that the representative was a member of a group of very similar or very different ideologies. Simply put, the immediate relevancy of threat to the group was more relevant to target organizations than the similarity of the group threatening them.

These findings however, do not clearly lend themselves to normative fit at first glance. As Oakes et al. (1991) demonstrated, behavior that is considered inconsistent with another group inhibits groups' perceptions of group cohesion. In turn, this lack of fit can minimize bias by inhibiting the perception of the group in question as "prototypical". In this particular case a perceived in-group or similar group, would not in theory criticize a group that shares similar goals and beliefs. What seems a likely exception to this rule is when normative fit is exceptionally poor. Strong criticism seems very unlikely from an individual of similar ideology or membership. As a result, a black sheep effect (Hornsey & Imani, 2004) occurred to account for such a large discrepancy between expected and actual espoused beliefs of the representative speaker.

Essentially, the current findings, although not immediately consistent with previous findings regarding the source of a message, can be explained under the current conception of self-categorization theory. The likelihood of this interpretation is furthered by two current findings. First, the examination of participants' perception of the source of the message were demonstrated by differential degrees of anger and upset reported by participants that further support research demonstrating a black sheep effect (Hornsey &

Imani, 2004). Participants expressed more anger and upset when a message was presented by an in-group member. Second, although our results did not demonstrate mean differences with regards to source and bias, there was a trend ($p = .057$) for identity to interact with the source of the message. Across target groups, out-groups demonstrated a slight downward slope towards greater bias as identity increased. In contrast, a steep inverse slope existed with identity and in-group representatives with regards to bias. Individual participants who did not have high degrees of identity invested within the target group tended to rate an in-group speaker much less negatively in contrast to those who did have high degrees of identity. This finding supports our expectation that high identifiers perceive threat as threat, regardless of the source of the message. As can be seen in Figure 1, high-identifiers rated in-group and out-group messages equally negatively. As such, these findings suggest that high identifiers' increased investment within a group results in a backlash towards threat. Both in-group sources and out-group sources of criticism in this case represent an attack on an organization from which high-identifiers derive meaning and self-esteem. As such, either the heathen (e.g., out-group) or heretic (e.g., in-group) deserves scorn.

There are also other interesting implications regarding this interaction of the source of the message and amount of bias evoked. Regardless of identity, groups that were identified as dissimilar did not vary widely across identity. Although the slope is not large, this finding supports Branscome et al. (1999) and Spears et al. (1999) in their research showing significant differences in bias for low and high identity members towards out-group sources. Interestingly, differences in in-group messages and out-group messages for low identifiers lend further support to these authors' conception of

low identifiers as instrumental in their membership goals. With an in-group source, low identifiers would not see any pragmatic gain for themselves by defending the group. Furthermore, one distinct possibility is that low-identifiers actually identified more with the individual complaining who supposedly comes from another organization of similar background. Out-group sources were perceived negatively by low-identifiers, but not nearly as negatively as high-identifiers, suggesting that low-identifiers did not see as much of an opportunity to further personal goals with an out-group source as compared to a similar other group source. In essence, one way to interpret these differences in bias for low-identifiers is that in-group sources provided similarity and perhaps advocacy for a low-identifier who may not be entirely happy with his or her organization. In contrast, low-identifiers did not perceive an opportunity to further group or personal goals when threat messages were presented by an out-group member, but due to a weak affiliation with the group, were not as upset by the criticism (Doosje al.,. 2002).

In broader terms, bias variation for high and low identifiers in the group is generally explained by a black sheep effect (Hornsey & Imani, 2004) where individuals who were not deeply invested in a group did not feel as threatened by the active criticism of another group of similar ideals. As a result, it seems likely that the perception of the representative as an in-group member maintained relevant salience; the presented criticism from the in-group member was not as threatening to the individual's sense of self that if not derived from the group in question, may be derived from other groups or sources. In a similar vein, low identifiers may have actually sympathized with the representative, potentially assuming that the individual presenting the threat themselves

did not strongly identify with his/her own group, otherwise, he or she would not be willing to criticize a similar other group.

Although the source manipulations did not achieve significant main differences across groups, our new and experimental manipulation of inclusion of threat did demonstrate significant and expected mean differences. Specifically, representatives who presented low inclusion threats produced significantly less bias compared to messages that were applied to groups as a whole. Reynolds al. (2000) demonstrated that the typicality of traits towards a group affects the amount of bias created towards out-groups. We in turn, interpreted this finding to suggest that the more a threat is generalized towards a group, the more likely greater bias will ensue. These findings present several interesting possibilities.

The concept of typicality (e.g., Reynolds al., 2000) was based on mechanisms of meta-contrast (Turner al., 1987) as a function of comparative and normative fit (Oakes al., 1991). In the case presented by Reynolds et al. (2000), typicality was induced by examining participant fit of positive and negative applicable traits that either *did or did not actually exist* in the tested populations. For instance, the adjective of piety would be applicable and existent for a religious organization, but not accurately apply to a fraternity. Oakes et al. (1991) have previously demonstrated that non-typical behavior from an out-group can, in certain situations, inhibit in-group bias, because expectations of out-group behavior do not match the expected comparative fit between groups. In contrast, the current study altered the message presented to target participants in hopes of altering typicality of a threat from a *non-internal source, regardless of its actual applicability*. Thus, these findings suggest that the perceived typicality of a threat can be

falsely induced from an external source, regardless of the participant's perception of the veridicality of the statement itself. Given that a broadly applied application of a threat produced more bias on average than a threat targeting a few members of the group, the inclusion of a persuasive message can serve to exacerbate or lessen salient contrast and subsequent bias in a manner that is consistent with principals of comparative and normative fit.

However, there is an important caveat regarding this interpretation. First, the current research regarding speaker induced typicality (e.g., inclusion) does not imply that participant evaluated typicality (e.g., actual applicability of the threat) contributed to these results. In other words, results suggest that participants did view a group inclusive threat as more salient than a targeted threat, but that does not mean that participants themselves did not evaluate the message in terms of its likelihood. Consider the possibility that individual participants within a group may not believe that "elitist behavior" is in fact typical of the group, however, the speaker presenting a message in an immediate and relevant scenario could have potential consequences to the group's overall well being. As such, a high inclusion manipulation induced greater amounts of threat, but not necessarily a threat that was believed as typical of the group. Our earlier manipulation checks support this interpretation, as participants reported a low inclusion threat as more "typical" of group members than a high inclusion threat, in essence, supporting Reynolds et al.'s (2000) findings.

What our inclusion manipulations do suggest is what is defined as "superordinate identity categorization" (Reynolds et al., 2000, p 66). Following the principals of abstraction as defined by SCT (Turner et al., 1987), threat created by externally inducing

typicality *overrides* internal participant perceptions of typicality as a prominent salient mechanism. As such, future research should more closely examine externally versus internally applied typicality within both IRT and less threatening conditions to further substantiate these findings.

In summation, our examination of bias from an IRT scenario provides several general implications for the reaction of pre-existing groups in situations where hostile other groups are present. Results suggest that out-group presenters of unpopular information will receive more bias towards them, but in-group presenters of unpopular information will create overall less bias with members who are less identified with the target group. Thus, groups of low-identity members may better receive criticisms from other in-group members than high identifiers. Second, criticisms placed towards a few specific members are more likely to reduce bias than global criticisms against the whole group. These results suggest that the conflict situation that will create the least bias is represented by an in-group member presenting a criticism towards a few specific members. Similarly, the best reception to a hostile message will occur when the majority of members within a target organization are not personally and highly identified with the target group in question.

Discussion: Persuasion, Identity, and Cognitive Elaboration

The examination of persuasion and cognitive elaboration with regards to social identity and threat followed several different avenues, many of which provided several interesting findings within an IRT scenario. Our general examination of persuasion demonstrated that identity as measured by the Luthanen & Crocker (1992) subscale of personal identity did not relate to either central or peripheral processing, nor to the degree

to which individuals focused on in-group or out-group elaborations. Although in earlier sections of the discussion we discussed the possibility of a mediation relationship between message evaluation, bias, and identity, we discuss further possibilities of this relationship in the current section.

With regards to our measurement of identity and the association with central and peripheral statements and group focused statements, our findings are somewhat surprising, but not entirely unexpected. Results are surprising in the sense that an individual's degree of investment within a particular organization was not related to, and therefore did not affect, how participants evaluated a message in terms of argument focus. Likewise, central processing was unrelated to identity and greater degrees of identity did not contribute to more out-group focused statements. These non-significant findings are contrary to previous research and theory. For instance, it would be expected that individuals who were considered out-group members would evoke more bias. In turn, the nature of the elaborations would invoke peripheral processing representing an evaluation of the message based on previously held beliefs about the out-group. Thus, greater degrees of identity invested within a group would bias participants towards negatively charged statements based on membership, and not necessarily the merits of the argument presented. This theory has been previously supported by researchers of identity and persuasion and cited as evidence of peripheral processing (e.g., Flemming & Petty, 2000; McGarty et al., 1994; Wilder, 1990).

Similarly, our inquiry into the elaboration focus of a message was based on principals of identity. In essence, we proposed an intermediate step involving the evaluation of a threat message that defined the motivation to focus cognitive attention

either within the participant's own group, or towards the group that presented a hostile message. Although our findings did generally support the validity of elaboration focus (see section below), we expected lower degrees of identity to promote a focus within the participant's group, whereas greater degrees of identity would promote elaborations towards the out-group. These expectations were based on principals of prototypicallity (Branscombe et al., 1999; Spears et al., 1999), essentially demonstrating that high identifiers tend towards greater degrees of bias, and therefore focus on the out-group who presented a threat in order to devalue them.

Neither of the above explanations were the case in the current study. There are, however, several methodological and theoretical explanations for why identity did not predict or relate to central or peripheral statements or group focused statements. One simple explanation is that our identity measure simply did not "capture" the other necessary components of identity that are associated with cognitive elaboration. Previous studies have structured their designs around the creation of in-groups and out-groups that were experimentally pre-determined (e.g., Haslam et al., 1995) and have not actively employed a measure of identity to determine a subject's individual importance of group membership.

One interesting possibility regarding this finding is that previous researchers employing individual measures of identity would discover similar findings if they examined both individual and group level scores. This would imply that persuasive evaluation of an in-group and out-group message is active on a group level, and not as a function of individual identity. Given theories of prototypicallity, where individuals within groups tend to conglomerate around typical group behavior (Branscombe et al.,

1999; Oakes et al., 1991; Turner et al., 1987), this explanation is probable. As such, persuasion and identity research might benefit from additional group and subject level analyses examining identity at both levels.

Although identity did not relate to central and peripheral processing and group focused elaborations, our combined HLM model placing these variables as predictors of group-level positive and negative responses provides several interesting findings regarding the evaluation of threat in an IRT setting. First, results demonstrated a tendency ($p < .10$) for our inclusion salience manipulation to produce differential degrees of negative statements. Specifically, high inclusion statements tended to produce more negative statements as opposed to low inclusion statements. This finding is not surprising given the general relationship between in-group bias ratings and negative statements produced (see Table 2). It seems reasonable to assume that a biased response of a speaker would be associated with negative statements regarding what that person had to say about participants' organizations.

With regards to identity as a predictor of negative and positive statements, results did not demonstrate an overall relationship between these two variables (unlike in-group bias), but did demonstrate a significant interaction with source of the message towards predicting negative statements. An examination of Figure 4 essentially shows a similar outcome of source and identity towards negative statements as with in-group bias. Negative statements sharply increased for in-group presenters as individual levels of identity increased, whereas negativity tended to slightly degrease as identity increased for out-group members. Similar to our interpretation of this effect with in-group bias, these results are highly indicative of a black sheep effect (Hornsey & Imani, 2004) where

participants felt more betrayed by in-group members presenting hostile messages if they had greater amounts of invested identity in the group. Conversely, out-group members were expected to be negative, and as such negativity slightly decreased for participants who reported greater amounts of identity. This decrease in negative statements can possibly be attributed to an "expectation of hostility" that would come from out-group members. Normative fit will assist comparative fit towards increasing in-group bias (e.g. Oakes et al., 1991), but rating the out-group as inferior does not necessarily imply a need to respond in a manner that is consistently negative. One possibility is that participants reported greater amounts of identity, disdain over the message increased. As such, highly identified participants essentially did not lower themselves to the out-groups levels. This interpretation is speculative, but might be of interest in future studies.

The examination of individual levels of central and peripheral processing towards predicting negative and positive statements provides several additional findings to examine. In support of our hypotheses and IRT conditions of threat, our findings demonstrate that greater amounts of argument focused statements were associated with less negativity. This finding highlights a general trend in early persuasion research demonstrating less negative responses to positive arguments when central processing occurs (Petty & Cacioppo, 1979; Petty et al., 1983). The general interpretation of these findings suggests that the use of central processing in an IRT condition is to alleviate perceptions of threat before negatively evaluating the merits of the argument itself.

However, the relationship between the degree of argument focused statements and the valence of responses differed for both of our salience manipulations of inclusion and source. Specifically, low inclusion statements demonstrated a sharp decline in

negative statements as argument focused statements increased, whereas high inclusion statements were consistently negative regardless of the amount of argument focused statements that ensue. This interaction of argument focused statements and negative responses across inclusion manipulations further validate our interpretation of mean negativity statements for inclusion messages. In essence, low inclusion sources produced less negative statements as argument focused elaboration ensued because the message was considered less threatening to the group as a whole. Thus, careful consideration of the message produced less valid threatening arguments by which all of the members of a group should be concerned about personally. In contrast, because the high inclusion message threatens the entire group, negativity remains constant regardless of the amount of argument focused elaboration that occurs. In essence, although the message was not considered likely or typical of the group, participants felt obliged to return threat with threat.

In a similar vein, results showed that the source of the message also significantly affected the degree to which negative statements and argument focused statements related to each other. Results demonstrated a significant interaction where in-group presenters of a threat message were rated consistently negatively despite the amount that individual target group members focused on the content and validity of the argument. In contrast, negativity sharply decreased as argument elaboration ensued for out-group presenters of a threat message. This interaction is strongly suggestive of Petty et al.'s (1983) credibility effect similar to our explanation of the interaction of identity and source towards predicting negative elaborations, and points to a distinct difference in how out-groups and in-groups are cognitively evaluated. Consider that an out-group source is

considered less credible and believable by a target organization (McGarty et al., 1994; Wilder, 1990). Thus, as the message is elaborated upon, negativity decreases because within IRT conditions less validity in the message can be construed as less consequential in terms of consequences (e.g., not a valid threat, and therefore, not worthy of disdain). As a result, argument elaboration increases for messages presented by out-group members, and less negative statements ensue because the content of the threat was taken less seriously. In contrast, an in-group member would be considered more knowledgeable and sympathetic to a group. As such, regardless of the amount of cognitive elaboration provided towards the message, negativity remained constant; the consequence of betrayal by another organization who holds a similar ideology (e.g., black sheep effect, Hornsey & Imani, 2004).

It is important to note that these findings are in stark contrast to early models of peripheral and central processing (Cacioppo & Petty, 1979; Petty & Cacioppo, 1979) where greater message elaboration would result in greater negativity if the message was not of high caliber (e.g., weak statements and invalid logic, see Petty & Cacioppo, 1979). These results also starkly contrast McGarty et al.'s (1994) findings where the out-group was generally ignored in terms of message validity and content (but also see Mackie & Worth, 1989; Mackie et al., 1990; Mackie et al., 1992). In situations similar to the experimental paradigms explained above we would expect our findings to be the opposite (i.e., out-groups are consistently negative regardless of elaboration, whereas in-groups show less negativity as central processing increases). However, we believe that the above findings are a direct consequence of the IRT condition produced in these experimental scenarios. As stated before, none of the previous studies applied an analysis of

persuasion to messages that had potential and immediate consequences to the well being of the group. Messages where final graduation exams may occur in several years (Van Knippenberg et al., 1994) or road safety (McGarty et al., 1994) may represent beliefs regarding group members about proper behavior, but do not represent immediate consequences to the group's good standing. Thus, in an immediately threatening setting, results further support the superordinate role of threat with identity (Reynolds et al., 2000). Threat overrides salient and relevant contrast because of its immediate importance and relevance to group standing (Turner et al., 1987). As such, a member of similar ideology presenting a message purporting a change in a particular belief or support for an upcoming event would likely be closely evaluated and more positive statements presented dependent on the quality of their presentation (i.e., mimicking previous researchers' findings). But, a message presenting inherent threat to a group from a representative of a similar organization represents betrayal and internal politics within a larger body. Thus, IRT conditions provide evidence that message elaboration, bias, and valence of counterarguments do not follow previous research because threat generally turns in-group members into potentially more threatening individuals than out-group members, who are not as knowledgeable about internal workings or are considered less respectable because of previous expectations of hostile behavior.

Finally, with regards to group focused statements, a general relationship was found between in-group focused elaborations and negative statements. As predicted in response to a threat message, greater amounts of in-group focused statements were significantly associated with lesser degrees of negative statements. However, contrary to our expectation, in-group focused statements did not differentially relate to negative

statements as a function of our salience manipulations. This finding is somewhat surprising. Our expectations of in-group focused statements as a predictor of negative statements were based on concepts of identity and salient contrast. In essence, we expected less degrees of salience to promote less contrast and bias between groups. As a result, participants within groups would apply the threat message towards the recipients of the threat and not the presenter of the threat. Instead, results suggest that group-focused statements are not related to identity (at least not directly) and are not influenced by differing degrees of salience.

However, our results demonstrate a general principal of persuasion. Individuals who focus on the presenter of a threat message are more inclined to present negative statements as opposed to participants who evaluate their own group. Thus, a greater degree of negativity occurs as out-group focus occurs. Furthermore, in the scope of ELM (Petty & Cacioppo, 1986), the positive relationship between these two variables is not surprising. Given the lack of effect our salience manipulations had on in-group focused statements, one might consider this principal a pre-cursor to central and peripheral processing. In essence, out-group focused statements are associated with peripheral processing, as would be expected given salient contrast regarding the "different" qualities of the out-group (Turner et al., 1987). Conversely, argument focused statements represent a greater amount of processing of the message, which is facilitated by applying the merits of the message to other group members to test its typicality in context of group membership.

These findings regarding in-group focused statements can also be interpreted more specifically as a potential inhibitor of normative fit (Oakes et al., 1991) that occurs

on an individual to individual basis within groups. Participants who are more inclined to examine the merits of an argument by applying them to themselves and other members are less likely to actively contrast themselves against the out-group. As a consequence, negativity regarding the out-group is less. This possibility, however, is very tentative, as principals of SCT (Turner et al., 1987) tend to function around group-level manipulations of salient contrast. These researchers would not necessarily concur with the above interpretation because it would suggest a random degree of normative interference based on other factors besides identity (which was unrelated to this measure). A potential variable that could validate this interpretation might be need for cognition (NFC) Cacioppo, Petty & Morris, 1983), where greater degrees of NFC contribute to in-group focused evaluation, and in turn reduce bias. In all, further examination of in-group focused statements and bias within laboratory conditions could potentially tease out this possibility, or provide direction as to which other potential variables might validate or invalidate this possibility.

Regardless of the mechanisms that support a relationship between in-group focused elaboration and negative statements, this finding has practical applicability. The current research suggests that statements incorporated within a message that focus participants to evaluate the merits of a threat or negative message in context of themselves and other group members could result in less negativity. As a consequence, when presented with a hostile message, participants may evoke less bias if statements are designed to promote in-group elaboration. Future research may wish to address this possibility by including group focus statements in IRT and laboratory scenarios to determine if this is a consistent effect or unique to IRT conditions.

In summation, our examination of persuasion has provided several interesting findings regarding IRT scenarios. In terms of practical applications, presenters of critical messages should be aware of black sheep effects (Hornsey & Imani, 2004) in the sense that in-groups are not evaluated as well in terms of criticism compared to out-groups, who generate less negativity as participants engage in central processing. Likewise, presenter criticisms benefit from central processing more so when the message applies only to a few members. Finally, the more that a speaker can present a message in such a way that focuses participants to elaborate on the message in context of their personal and group behavior, the more likely responses will be positive.

Discussion: Belief Perseverance Identity and Salience

Our examination into the perseverance of belief in terms of bias and belief in the participant's "goodness" of a group demonstrated some interesting findings. Although we expected that bias would persist while decreases in value would not, results demonstrated that bias was significantly reduced for the entire sample, whereas the perception of a group's value persisted as if the threat message presented was veridical. However, our exploratory examination of residual bias using HLM demonstrates that there are exceptions to this finding.

Once residual bias was examined in terms of the differing salience manipulations that we provided to participants, results demonstrated that bias was reduced from participants' initial ratings of the message, but initial differences that occurred from differing degrees of inclusion tended ($p < .10$) to persist. In essence, groups that received a low inclusion threat tended to display more residual bias than those groups who received a high inclusion message, similar to our examination of initial bias.

These results are interesting, and to our knowledge, the first of their kind, in that they demonstrate that the initial stimulus perceived by participants dictates their evaluation of that stimulus when the stimulus in question is negated. In more applicable terms, a bias threat induced by a low inclusion message in contrast to a high inclusion message continues to differentially persist. Thus, one piece of information provided by this research is that the degree to which a message is hostile or threatening is going to determine how much bias persists even when the message is proved to be fatuous. This is in contrast to what might be expected, in that participants would re-evaluate new information regarding the fact that the information was true, and in turn re-evaluate their beliefs about the person who presented the message to a generally neutral stance. Instead, these differences did not "wash out" given the new information, but instead bias was reduced in proportion to the initial bias created.

This "differential persistence of bias" becomes somewhat more complicated by a significant relationship between identity and residual bias. Across the groups who participated, those individuals who had lower degrees of identity invested in a particular group reported less overall residual bias in contrast to those who were highly invested in a group. However, identity did not demonstrate differential relationships (e.g., predictive slopes) between inclusion or source manipulations for residual bias, indicating a general relationship across conditions. Although the relationship between identity and bias persistence has not been specifically studied, many other studies within and outside of social identity research can corroborate and explain this finding. Anderson (1995a) demonstrated that previously held implicit personality theories tend to bias subsequent judgments. Similarly, the current research demonstrates that previously held beliefs about

belonging to and being similar to others in a group will also affect the extent to which an individual is willing to "let go" of a message that threatens their beliefs about that group. In context of research by Branscombe et al. (1999), low identifiers are willing to re-evaluate their beliefs (e.g., Anderson & Lindsey, 1998) about the group that threatened them as their initial attachment to the group is low, and it does not personally benefit them to continue to believe in the negativity attributed to the group. Conversely, high identifiers may realize that the threat in question is not valid, but continue to display some bias simply because much of their sense of self-esteem and identity is embedded within a particular group.

The above results demonstrate that both initial levels of bias created by a stimulus as well as the degree of identity invested by participants towards a target group, does alter the degree to which bias will persist when attempts are made to negate it. However, the examination of changes in their perception of group value using HLM did not return any significant findings due to identity or salience manipulations. Thus, unlike bias whose findings are qualified by identity and salience manipulations, the overall global test of value described earlier seems consistent regardless of identity. That is, the significant reduction in participants' perceptions of their group as a "good group" persisted regardless of factual information invalidating the threat.

The persistence of residual value is somewhat perplexing, and contrary to our hypotheses that in some cases value ratings might increase due to threat (e.g. Batson, 1975). However, this finding is consistent to other general studies involving belief perseverance (e.g., Anderson, Lepper, & Ross, 1980; Anderson & Sechler, 1986; Jennings, Lepper, & Ross, 1981; Ross, Lepper, & Hubbard, 1975), in the sense that

initial information provided to participants will tend to persist, despite invalidating information. What is somewhat disturbing about the current finding is that perceptions of value regarding a group that is personally relevant and meaningful to individual participants is susceptible to belief persistence. The negative evaluations of a group from which participants derive meaning would in theory be less susceptible to negative evaluations because of a group's importance to identity and self-esteem. Moreover, the current scenario differs substantially from other belief perseverance scenarios in that the target of the presented information is pre-established and directly relevant to the participant. Although other studies have reinforced beliefs by providing praise at participants' accuracy in judging suicide notes (Ross Lepper, & Hubbard, 1975), it stands to reason that temporary praise regarding a behavior that was rarely if ever performed by participants does not equate to a threat message regarding a group to which an individual belongs. Rather, we would expect that the personal relevance of the group in question would provide substantially more motivation to examine the new information provided by dispelling the threat message (e.g., Anderson & Lindsey, 1998). Thus, a negation in the reduction of perceived value of the group would occur. However, it appears that belief persistence is "persistent" regardless of the personal relevance or meaning of the target of a message, emphasizing the power of this psychological phenomenon.

Given the attempt to examine threat within an IRT setting, several practical and tentative applications can be made from this study. With regards to belief perseverance, our results suggest that a threat that produces less initial bias is apt to be "forgiven" once the information in question is repudiated. Practically speaking, individuals or groups accusing other groups of minor infractions will not be held as accountable if proven false

as compared to grander more inclusive threat producing accusations. Similarly, this research suggests that non "core believers" (e.g., low identifiers) are more apt to disregard their negative feelings towards others who try to accuse their group of wrong doing. The current research demonstrates that when a group in question is accused, those who highly identify with it will continue to resent the accuser, even when exonerated from wrong doing.

Finally, the continuation in participants' beliefs that their group was "less good" despite discrediting information supports the age old adage of "do not bear false witness". In essence, these results show consequences in how participants view their organization when false accusations are presented. However, it is important to state that this reduction in value may not persist over time, but rather represents an immediate reevaluation of information before provided with additional information regarding the falsehood of the information. Future research may want to examine whether participants' views remain more negative of their organization longitudinally, provided this research can be conducted without harming participants.

Strengths and Limitations

The above analyses demonstrated both consistent and readily interpretable findings in the context of Social Identity Theory and Self-Categorization Theory (Tajfel & Turner, 1979; Turner et al., 1987). However, the reader is cautioned towards the interpretation of these findings in several ways.

First, although analyses were conducted within manipulations to examine potential differences due to group type, group membership was not able to be fully crossed within the HLM model. As such, our findings provide initial and suggestive

evidence that group ideology does not consistently or systematically influence bias, persuasion, or belief perseverance within the context of pre-existing groups. However, analyses did not control for these differences simply because they were not systematically occurring, or frequent enough to allow insertion (and thereby controlled analysis demonstrating the individual effect of group ideology) into the HLM model. Thus, the current study cannot rule out the possibility that future studies that are able to collect a larger, fully crossed sample, may find a *small*, but significant effect of group ideology across college organizations. It is also possible that a systematic examination of these variables and group ideology within a laboratory context, without the other environmental factors inherent in this study may also demonstrate this finding.

Second, and in a similar vein, our analyses of gender should be interpreted with caution. Results in the current manuscript do not suggest that gender of our confederate significantly altered our results, and a case could be made that our significant findings were over and above what seemed to be a positive evaluation of males towards female confederates; however, these findings do not rule out the possibility that gender bias does contribute to in-group bias, particularly if the norms inherent in a group revolve around beliefs involving gender. This study did not specifically test organizations involved with gender equality, nor did any participants come from anti-equality groups regarding gender. Future research may demonstrate independent gender-bias outside of traditional in-group bias, when the target group in question involves gender specific beliefs.

It is also relevant to note that conclusive tests for actor performance, or differences in the dependent variables due to differing colleges or regions, could not be satisfactorily conducted. The scarcity of groups willing to participate, in conjunction

with the need to recruit from multiple campuses and the use of different actors, severely limits reliable conclusions from partial analyses. As a result, it is possible that mean differences are potentially confounded by regional or actor differences. However, as predictor variables were group mean centered, Level 1 predictor variables are immune to this possibility. Future research should replicate this study and its findings within one particular location, ruling out this unlikely, but potential possibility.

The above advisories having been stated, the overall results of these HLM models, although placed on a small sample size, seem consistent, and moderately reliable in terms of findings. Results overall do not produce any findings that are un-interpretable by current social identity theory. However, this study was specifically designed both as a study examining conflict in realistic scenarios, *and* as a preliminary study from which general and applicable findings can be more rigorously examined. As such, results should be considered generally applicable. The above having been said, these findings are substantial enough and powerful enough given a smaller sample size to suggest that the majority of these results should replicate in future studies. Other studies could replicate these findings by letting group membership randomly vary across participants in a laboratory setting. However, laboratory studies would only be relevant if a method could be devised to present threatening, and possibly positive messages that are generic enough to be meaningful by a large variety of campus organizations.

Future Research

Additional studies in traditional and non-traditional venues would provide additional evidence to support these environmentally relevant findings. One of the weaknesses of the current study involves the use of group level analyses. Although the

use of HLM allows for subject level analyses and intra-class correlations between subjects within groups, individual level studies should be conducted. To that extent future research should use the world-wide-web as a potential medium for follow up studies. A wide variety of participants could be presented one of several pre-prepared positive and negative evaluations of groups, organizations, and ideologies, based on self-identifying information provided in a preliminary survey. With some forethought, a large sample of participants could be assessed on positive and negative assessments of groups or organizations from which they personally derive identity.

In addition, the above design would allow for a greater amount of differing ideological groups, which could be precisely analyzed in subject level OLS designs, further testing our preliminary findings regarding differences in bias due to group ideology. With a large enough sample size across many different ideologies, small differences in bias or persuasion could be detected within individual ideologies. Likewise, the further addition of inclusion and source manipulations could be examined within positive and negative contexts providing more insight regarding threat persuasion and conflict.

Subsequent studies using a similar internet format could make use of our basic findings regarding in-group focused elaborations. The addition of a manipulation variable either encouraging or discouraging in-group elaboration would represent a second important test of salience and bias reduction due to in-group focused elaboration. Differences in bias and elaboration due to participants' focus on the validity of the threat for their own group compared to applying their cognitive efforts towards repudiating the

out-group, would support a practical application of group-focused elaborations towards reducing conflict in difficult situations.

Should subsequent studies replicate a general lack of differences in bias across differing ideologies, the implications would warrant a study that investigates a potentially subject level variation in the need to belong and identify oneself to ideologies regardless of the particular ideology to which one adheres. The essence of this research would attempt to find commonalities between highly identified participants across groups in the hopes of finding similar needs and desires to clearly identify "me and not me" via the use of organization or ideology membership. Successful findings along these lines would support a conclusion that with regards to negative reactions, membership is important, but ideology is ultimately irrelevant.

Conclusion

In an attempt to examine SCT and SIT within realistic and threat settings, the current research provides initial evidence that bias, persuasion, and belief perseverance function within the context of previously established social identity and self-categorization theory premises (Tajfel et al., 1971; Turner et al., 1987). What is important about the current research is that although results are explainable in terms of the above theories, IRT conditions do not directly correspond to other studies that either did not explore more specific pre-existing ideologies or did not induce direct threat. We believe that the current research provides several additional and exciting avenues of research to follow regarding identity and threat in realistic conditions and has generally demonstrated immediately practical and generalizable findings for individuals who regularly deal with conflict in real-word settings. Similarly, the current study has

demonstrated two new potential variables that contribute to bias and salience, namely, speaker induced inclusion and group-focused elaborations, that future studies may find valuable towards predicting, and perhaps mediating bias.

REFERENCE NOTES

[1] The use of the term "persuasion" in this particular research context should be interpreted judiciously. Persuasion researchers (e.g. Petty & Cacioppo, 1979, McGarty et al., 1994) have previously examined attitude change in the context of positive or negative reactions to a particular message, positive or negative responses, or individual evaluative processes (e.g. central or peripheral processing). However, these kinds of evaluations do not assess long term attitude change. Rather, in the current context, persuasion represents an initial evaluative positive or negative response to a particular message.

[2] Belief Perseverance can also be operationally defined as belief persistence. For the sake of the current research belief perseverance is defined as participant's tendency to maintain a lessened belief about the goodness of their group, despite clear instructions that indicate that the threat message is fictitious.

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APPENDICES

APPENDIX A

INTERPRETING HLM

HLM functions very much like multiple regression, with the exception that the data is modeled on subject and group level responses. In the current study, HLM is used to conduct both an ANOVA style analysis of mean differences, as well as more traditional regression-like prediction analyses. At Level 1 predictors are placed towards predicting the dependent variable. Nominal group-level manipulations are placed at Level 2.

HLM reports a gamma score, the standard error of the mean, a t coefficient, and probability. The principal effect coefficient is represented by γ. Gamma represents the un-standardized effect of the variable on the dependent variable. As with multiple regression, the gamma score is similar to B in a multiple regression. Gamma represents the amount of change in independent variable in context of one unit change in the dependent variable. In any HLM output the gamma divided by the standard error of the mean will reproduce the t-score, which is used to determine significant variation. As a result, if gamma is large and the S.E. is small, a significant result is likely.

Regarding the current use of HLM, please refer to Table 3, which represents an analysis of in-group bias. At Level 1 individual's identity scores are placed as a predictor of in-group bias. At Level 2 Inclusion (high, low) and Source (in-group, out-group) are coded as dummy variables.

Level 2 results are represented as INTERCPT, INCLUSION, and SOURCE. These variables are denoted as $\gamma 00$ - $\gamma 02$. Because these terms are dummy coded, Level 2 analyses represent a test of mean differences due to the manipulation on the dependent variable. These scores can be interpreted exactly the same as conducting an ANOVA using multiple regression. As such, a significant intercept represents a model that predicts significantly better than the mean of the dependent variable. Likewise, a significant gamma for either inclusion or source represents a significant mean difference in the D.V. due to the manipulation.

Level 1 HLM outputs are also presented with INERCPT, INCLUSION and SOURCE terms, but are interpreted differently because the predictor is a continuous variable. For Level 1 predictors a significant intercept represents an overall across group significant relationship between the predictor (in this example, identity) and the dependent variable (in this case, in-group bias). The INCLUSION and SOURCE variables at Level 1 represent a test of an interaction of identity with either of the Level 2 variables of inclusion and source. A significant gamma for either of these variables can be interpreted the exact same way as a nominal/ordinal interaction term placed in multiple regression. In other words, a significant interaction of a Level 1 continuous variable and a Level 2 nominal variable represents a significantly different association (e.g. slope) between identity and bias *within each condition*. As an example, a significant gamma for the Level 1 INCLUSION term would indicate that the slope of identity and bias in the low inclusion conditions are significantly different from the high inclusion conditions. In these cases, Figures are presented to examine the practical interpretation of the interaction.

APPENDIX B

PRELIMINARY STATEMENTS AND CONSENT

Hello, you are probably wondering why I am here. My name is Brian Laythe and I am a doctoral student of psychology. I am conducting an experiment on a technique for group communication sponsored by the psychology department with cooperation from xxx. Another student organization has requested to speak with you and has agreed to let us try our new technique with you all. This is (xxxx), their representative. Although I am sure other representatives from student groups have spoken with you before, this communication technique is experimental, and in order to participate you have to fill out a consent form. Please read and sign these forms. After you complete a consent form, we will give you more information about our speaker and this process. After we have given you this information we will give you a second opportunity to not participate in this communication process.

(AFTER COLLECTION OF CONSENT FORMS)

Thank you for deciding to participate. Our new communication technique is a new way to promote effective and uninhibited communication of thoughts and feelings between groups when complaints have been made against a student organization. This is why I am here.

MANIPULATION A. (IDENTIFICATION AS OUT-GROUP)

Members of another student organization that have very different goals and ideals than (enter group name here) have made complaints about this group.

MANIPULATION B. (IDENTIFICATION AS IN-GROUP)

Members of another student organization that have <u>very similar goals and ideals</u> like (enter group name here) have made complaints about this group.

(xxxx), as the representative of this group will present their feelings and concerns to you in a brief statement within the context of a experimental procedure. Your anonymous individual responses will be typed and sent back to the organization that will speak to you shortly.

Our process focuses on both groups having the freedom to express their opinions without worry of specific affiliation or peer-pressure. This is why I have not identified (xxxx) group affiliation. If you recognize the representative speaker's group affiliation, please keep it to yourself until the end of the experiment.

We provide you questionnaires to give you the opportunity to voice their own opinions and feelings and state what you really feel and think without worrying about your peer's opinions.

HOPEFULLY, THIS WILL CREATE A PRESSURE FREE ENVIRONMENT FOR EVERYONE TO EXPRESS THEMSELVES.

PROCEDURE:

There is a specific structure to this program because we are interested in the effectiveness of this technique as a mediation tool for situations involving complaints. In a moment, we will provide a packet that contains 3 parts (Sections A, B, and C). Each section asks you to answer various scale items, but also provides you an opportunity to write your comments and opinions down. HOWEVER, PLEASE DO NOT TURN TO ANY SECTION UNTIL WE ASK YOU TO.

You will notice that there are no identifying marks on these packets other than an I.D. number and section identification. This is to ensure your individual privacy.

Before the representative speaks, we will ask you to fill out the first section (Labeled section A). This packet allows us to assess your relationship with this student organization.

After you all complete section A, the representative will speak to you. After the representative has finished speaking please use the second packet (Labeled section B). Section B is designed so that you answer several important questions about the representative but also allows you to voice any concerns that you may have.

As part of our experimental procedure, we insist that you do not ask questions during this part of the program, but answer the questions and write your comments within the section B packet.

When everyone's Section B packet is finished, we will make some brief comments and then ask you to complete a very brief third part of the packet (labeled Section C).

After completion of all three sections, we will reveal (xxxx) affiliation and have a structured discussion about group concerns.

Now that you have full information about this procedure, we would like to repeat that this procedure is voluntary. If anyone has now chosen not to participate we would ask them to please leave the room.

2. Manipulation Statements

STATEMENT AGAINST THE ENTIRE ORGANIZATION

Thank you for letting me speak as a representative of concerned people in our group.

IF PRESENTED AS AN IN-GROUP MEMBER:

I would like to say first of all that I am a (xxxx) like the rest of you.

However,

IF PRESENTED AS AN OUT-GROUP MEMBER:

I'll be to the point about this

We have some problems with (your groups) behavior at XXX. Several of us have watched you give some pretty serious attitude to people you talk to, like the (*insert group*) is some "special group of people". Many people in our group have suggested (your) actions to mean that you think you are better than everybody else, and I tend to agree with them.

On several occasions, members of my group told me that (*You all*) have acted like the (*insert group*) has the right to shove your group down everyone else's throats. People in my group have told me that they can't get a word in because (*everyone in the xxxx*) are too busy acting offended and telling everybody how things should be. Then (*all of you*) go off about how you don't do this sort of thing or how that's the wrong way to do this or that.

We think that you need to be aware of your own actions with other people on campus. It wouldn't hurt (*all of you*) to listen a little more and respect others around you. Other people different from you might deserve respect too. Just because people may not be from (the xxxx) does not mean that they do not have important or helpful things to say.

STATEMENT AGAINST A FEW INDIVIDUALS WITHIN THE ORGANIZATION

Thank you for letting me speak as a representative of concerned people in our group.

IF PRESENTED AS AN IN-GROUP MEMBER:

I would like to say first of all that I am a (xxxx) like the rest of you.

However,

IF PRESENTED AS AN OUT-GROUP MEMBER:

I'll be to the point about this

We have some problems with (a few of your members) behavior at XXX. Several of us have watched (members of your group) give some pretty serious attitude to people you talk to, like the (*insert group*) is some "special group of people". Many people in our group have suggested (these members) actions to mean that you think you are better than everybody else, and I tend to agree with them.

On several occasions, members of my group told me that (*these members*) have acted like the (*insert group*) has the right to shove your group down everyone else's throats. People in my group have told me that they can't get a word in because (*some members of xxxx*) are too busy acting offended and telling everybody how things should be. Then (*these people*) go off about how you don't do this sort of thing or how that's the wrong way to do this or that.

We think that you need to be aware of your own actions with other people on campus. It wouldn't hurt (*these members of xxxx*) to listen a little more and respect others around you. Other people different from you might deserve respect too. Just because people may not be from (the xxxx) does not mean that they do not have important or helpful things to say.

3. Pseudo Debriefing Statement

Thank you for listening and participating in our attempts to further communication between social groups. However, I wish to tell you now that you have been deceived. Our speaker in fact does not represent another social group. The statements that you just heard accusing your group were fictitious. We are not aware of any group that has concerns of issues with your behavior. The statements that you just heard have no basis in reality. In fact we made them up. Our representative and ourselves have no quarrels with your behavior, and do not endorse any of the views that you previously heard. Although we admit that we have deceived you, we now ask that you indulge us for five more minutes. We have a very small final assessment sheet that we would like you to fill out. We ask you to answer these questions within the context of the information that we have just provided you. Part of the reason we ask you to do this, is to ensure that you have heard us correctly and understand that these statements were not based in fact. Let me make this clear: the group the speaker represented is fictitious. As soon as you are finished with this quick assessment we will provide an extended explanation as to why we have deceived you, our motivation behind it, and how this experience can be valuable for you as a group and personally.

Again, we thank you for your indulgence.

4. Final Debriefing Statement

I would like to thank you again for participating and explain why we have deceived you. My name IS Brian Laythe, but I am not examining a new communication technique. You have just completed an experiment that examines group identity and conflict. I am a psychology graduate student and these are my research assistants (provide research assistant names here). We apologize for deceiving you, but I am examining how social groups respond to threatening information, and the only way we could get an honest response is by creating a story to justify giving you these surveys. We realize that you may be upset and we want to let you voice any concerns that you have. We do not want anyone to leave here feeling badly.

We have performed this experiment because we are trying to understand specific factors that contribute to conflict. Several events across university campuses make an empirical examination of conflict worthwhile, even if we deceived you temporarily. For instance, campus riots have occurred at Indiana University Bloomington, and the University of New Hampshire. In addition, frequent and often intense debates occur between student organizations across university campuses. Your participation in this experiment may help to alleviate conflicts across campus by providing us a better understanding of the nature of group conflict. We hope that you feel that our deception was justified.

There are a few things that I want you to know up-front:

1. You were not specifically picked for this experiment for any reason other than the fact that your group represents a body of individuals who share similar goals and ideals.

2. I am currently in the process of performing this experiment with many other groups some of which are similar to yours and some of which are not.

In essence, I promise that I am not picking on you, and that other groups be they religious, political, or in the Greek system, have been or will be participating in this experiment.

Your group participated in one of four conditions that we believe either exacerbate or minimize feelings of bias or conflict between groups (state condition here). One of our goals is to compare these conflict conditions across various groups with differing ideologies to see what differences exist, and attempt to determine if specific ideologies in themselves promote or hinder conflict.

The surveys that you completed essentially addressed three large areas that may help us understand conflict between groups. The first of these addressed any feelings of conflict or bias from being confronted with a negative message. Our other two areas concerned:

1. How you processed the message by examining your written responses.
2. How your feelings towards the speaker and feelings about your group changed when we informed you that the statement was fictitious.

The culmination of this data that you have helped us collect could prove to be invaluable in minimizing conflict between groups. For instance, we may discover that certain conflict situations always produce bias, and an inability to process a valid complaint message. We may also discover that if someone has been falsely accused that further steps have to be taken for people to believe in their innocence. More importantly,

these studies can tell us what ways complaints between groups should not be handled, information that we feel the IUS community will find valuable. For instance, if something is important to your group, wouldn't you like to know the best way of approaching another group to ensure that you get what you need? If the group that you are approaching has different goals than yours, then the information we collected today would be useful to you.

Finally, because we feel that this research is important and useful to many groups, we would like to ask a favor of you. Although we have deceived you, it is of crucial importance that other groups not know about what we are doing in order for us to continue this research. Thus, we ask you to help us one last time by serving as confederates of our experiment. Please do not discuss this experiment with other groups or people that you know.

That is all we have to say, unless there are any other concerns. PLEASE FEEL FREE TO ASK ME ANY QUESTIONS THAT YOU WISH OR DISCUSS ANY NEGATIVE FEELINGS THAT YOU STILL HAVE. We again want to emphasize that we do not want anyone to leave here upset or disturbed. As you leave please take a debriefing sheet that has my number xxx-xxx-xxxx and my advisor, Dr. xxxxxxx number, xxx-xxx-xxxx. If you have any additional concerns or upset from this experiment please do not hesitate to call us. Finally, if you have any questions or concerns about your rights as a participant, please contact xxx-xxxx, at the Office of Academic Affairs, xxx-xxx-xxxx.

APPENDIX C

APPARATUS

COMMUNICATION ASSESSMENT
PART A

Thank you for participating in our discussion. The following questionnaire will ask you questions about your affiliation with this organization. Because some of these questions are personal, we would like to assure you that your confidentiality is guaranteed. Please be as honest as possible. Below you are some questions that ask about general information on your background group affiliation.

1. What sex are you?

a. Male _____
b. Female _____
c. Transgender _____

2. What is your age? _____

3.What is your year in school?

a. Freshman _____
b. Sophomore _____
c. Junior _____
d. Senior _____
e. Other _____

4. What is your marital status?

a. Married _____
b. Living with romantic partner _____
c. Single, never married _____
d. Single, divorced. _____

5. What is your sexual orientation?

a. Heterosexual _____
b. Bisexual _____
c. Homosexual _____

6. Race: (please circle)

a. African American.
b. Asian American
c. Caucasian
d. Hispanic American.
e. Native American.
d. Other

7. How often do you attend meetings of this organization?

a. Never _____
b. Rarely _____
c. Sometimes _____
d. Frequently _____
e. I attend all meetings _____

8. Do you belong to any other campus organizations?

YES NO

9. If so, please tell us how many other campus organizations that you belong to.

_____

Please rate the following statements below with the following rating scale.

1 = strongly disagree 2 = disagree 3 = disagree somewhat 4 = neutral 5 = agree somewhat
6 = agree 7 = strongly agree

1. I am a worthy member of this group. _____

2. I often feel I'm a useless member of this group. _____

3. I feel good about this group. _____

4. In general, others think that the group I belong to is unworthy. _____

5. In general, belonging to this group is an important part of my self-image. _____

6. I feel I don't have much to offer this group. _____

7. In general I'm glad to be a member of this group. _____

8. Most people consider my group, on the average, to be more ineffective than other social groups. _____

9. This group is an important reflection of who I am. _____

10. I am a cooperative participant of this group. _____

11. Overall, I often feel that the group of which I am a member is not worthwhile. _____

12. In general, others respect the group I belong to. _____

13. This group is unimportant to my sense of what kind of person I am. _____

14. I often regret that I belong to this group. _____

15. Overall, my group is considered good by others. _____

16. Overall, my membership in this group has very little to do with how I feel about myself. _____

Please take a moment to look at the person who is about to speak to you. Please rate your assessment of him or her on the following items below.

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
inferior													*superior*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
uncreative													*creative*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
unhelpful													*helpful*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
unfriendly													*friendly*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
uncooperative													*cooperative*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
ignorant													*knowledgeable*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
close-minded													*open-minded*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
unjust													*just*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
incorrect views													*correct views*

How much would you say that your own personal beliefs and actions are typical of your group's beliefs and actions?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
not at all typical												***completely typical***

Would you say that other members of this group behave in such a way that promotes the "positive image" of your group?

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
not at all												***completely***

Please rate your own group on the following items below.

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
inferior *superior*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
uncreative *creative*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
unhelpful *helpful*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
unfriendly *friendly*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
uncooperative *cooperative*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
ignorant *knowledgeable*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
close-minded *open-minded*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
unjust *just*

-6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6
incorrect views *correct views*

When I think about it, I am similar to the average member of this group

1 2 3 4 5 6 7 8 9 10 11 12 13
not at all *very much*

When I think about it, I am similar to the person who is the representative speaker for this presentation

1 2 3 4 5 6 7 8 9 10 11 12 13
not at all *very much*

COMMUNICATION ASSESSMENT AND GROUP RESPONSE
PART B

1. How important are the issues presented by the speaker to you?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all important ... *extremely important*

2. To what extent do you agree with the content of this message?

1 2 3 4 5 6 7 8 9 10 11 12 13

do not at all agree ... *completely agree*

3. To what extent do you agree that action should be taken about the issues just presented?

1 2 3 4 5 6 7 8 9 10 11 12 13

no action taken ... *a lot of action taken*

4. To what extent does this person's statement emotionally upset you?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all emotionally upset ... *extremely emotionally upset*

5. To what extent does this person's statement anger you?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all angry ... *extremely angry*

6. To what extent do you feel that the speaker's statements accurately reflect your group's behavior?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all ... *completely*

7. To what extent do you think that the speaker's statements apply to everyone in your group?

1 2 3 4 5 6 7 8 9 10 11 12 13

applies to very few in the group ... *applies to everyone in group*

8. When I think about it, I am similar to the average member of this group

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all ... *very much*

9. How much would you say that your own personal beliefs and actions are typical of your group's beliefs and actions?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all typical ... *completely typical*

10. Would you say that other members of this group behave in such a way that promotes the "positive image" of your group?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all *completely*

11. To what extent did you like the messages just presented?

1 2 3 4 5 6 7 8 9 10 11 12 13

didn't like *really liked*

12. To what extent do you feel that the arguments just presented were convincing?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all convincing *extremely convincing*

13. Would you judge the reasons given for the speaker's argument to be

1 2 3 4 5 6 7 8 9 10 11 12 13

poor quality and uncompelling *very good quality and compelling*

Please rate the speaker that you just heard on the items below.

	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
inferior													*superior*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
uncreative													*creative*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
unhelpful													*helpful*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
unfriendly													*friendly*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
uncooperative													*cooperative*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
ignorant													*knowledgeable*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
close-minded													*open-minded*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
unjust													*just*
	-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6
incorrect views													*correct views*

Please list any and all comments or thoughts that you had while listening to the speakers statements. Please feel free to include any comments about anything related to what the speaker said in the speech, the speaker and the speaker's personality, the topic of the speech, the context in which the speaker spoke, or anything else you might have been thinking about during message presentation, including totally unrelated things.

POST ASSESSMENT OF COMMUNICATION
PART C

1. How important are the issues presented by the speaker to you?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all important ... *extremely important*

2. To what extent do you agree with the content of this message?

1 2 3 4 5 6 7 8 9 10 11 12 13

do not at all agree ... *completely agree*

3. To what extent do you agree that action should be taken about the issues just presented?

1 2 3 4 5 6 7 8 9 10 11 12 13

no action taken ... *a lot of action taken*

4. To what extent does this person's statement emotionally upset you?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all emotionally upset ... *extremely emotionally upset*

5. To what extent does this person's statement anger you?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all angry ... *extremely angry*

6. To what extent do you feel that the speaker's statements accurately reflect your group's behavior?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all ... *completely*

7. To what extent do you think that the speaker's statements apply to everyone in your group?

1 2 3 4 5 6 7 8 9 10 11 12 13

applies to very few in the group ... *applies to everyone in group*

8. When I think about it, I am similar to the average member of this group

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all ... *very much*

9. How much would you say that your own personal beliefs and actions are typical of your group's beliefs and actions?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all typical ... *completely typical*

10. Would you say that other members of this group behave in such a way that promotes the "positive image" of your group?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all *completely*

11. To what extent did you like the messages just presented?

1 2 3 4 5 6 7 8 9 10 11 12 13

didn't like *really liked*

12. To what extent do you feel that the arguments just presented were convincing?

1 2 3 4 5 6 7 8 9 10 11 12 13

not at all convincing *extremely convincing*

13. Would you judge the reasons given for the speaker's argument to be

1 2 3 4 5 6 7 8 9 10 11 12 13

poor quality and uncompelling *very good quality and compelling*

Please rate the speaker that you just heard on the items below.

-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
inferior													*superior*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
uncreative													*creative*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
unhelpful													*helpful*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
unfriendly													*friendly*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
uncooperative													*cooperative*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
ignorant													*knowledgeable*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
close-minded													*open-minded*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
unjust													*just*
-6	-5	-4	-3	-2	-1	0	1	2	3	4	5	6	
incorrect views													*correct views*

Finally, before participating, were you made aware of the nature of this program by another person? **Yes** **No**

Before we told you that the representative presented fictitious information, did you believe that his/her statement came from another student organization?

Yes **No**

APPENDIX D

IRB APPROVAL FORMS

UNIVERSITY of NEW HAMPSHIRE

November 17, 2003

Laythe, Brian
Psychology, Conant Hall

IRB #: 3034
Study: The Creation and Perseverance of Bias and Cognitive Response to Threat within Pre-existing Social Groups: A Social-Identity Perspective
Approval Date: 11/14/2003

The Institutional Review Board for the Protection of Human Subjects in Research (IRB) has reviewed and approved the protocol for your study as Expedited as described in Title 45, Code of Federal Regulations (CFR), Part 46, Subsection 110.

Approval is granted to conduct your study as described in your protocol for one year from the approval date above. At the end of the approval period, you will be asked to submit a report with regard to the involvement of human subjects in this study. If your study is still active, you may request an extension of IRB approval.

Researchers who conduct studies involving human subjects have responsibilities as outlined in the attached document, *Responsibilities of Directors of Research Studies Involving Human Subjects.* (This document is also available at http://www.unh.edu/osr/compliance/IRB.html.) Please read this document carefully before commencing your work involving human subjects.

If you have questions or concerns about your study or this approval, please feel free to contact me at 603-862-2003 or Julie.simpson@unh.edu. Please refer to the IRB # above in all correspondence related to this study. The IRB wishes you success with your research.

For the IRB,

Julie F. Simpson
Regulatory Compliance Manager

cc: File
Advisor/Co-Investigator

Regulatory Compliance Office, Office of Sponsored Research, Service Building, 51 College Road, Durham, NH 03824-3585 * Fax: 603-862-3564

INDIANA UNIVERSITY SOUTHEAST

INSTITUTIONAL REVIEW BOARD MEMO

To: Brian R. Laythe
1737 Elm Street East
New Albany, IN 47150

From: Marcia T. Segal, chair

Subject: IRB #03.45

Date: June 29, 2004

CC: Diane E. Wille, Psychology

"Communication and Resolution between Student Groups with Disagreements" IRB #03.45

Thank you for your memo of June 25, 2004 responding to the memo of June 21, 2004 from the IRB indicating the changes required for approval of your protocol. Please note that on the subject line and also in the line containing the title of the project, the protocol is referenced as IRB *#03.44*. This is an error. The correct number for this protocol is IRB 03.45; the error was mine. Please refer to IRB #03.45 in all future correspondence. In order to avoid confusion, I am sending you a corrected copy of that earlier memo.

The information regarding the data-gathering instruments is now complete and you have made the changes in the contact information in various places so that they are consistent.

The file is now complete and the protocol has been approved. Please remember that all forms and scripts used in the research must be identical to those approved as of this date.

Please notify the IRB prior to making any changes and to file a progress report no later than one calendar year from the date of this approval.

Thank you for your cooperation with the review process.

0345.irb.wpd

Michael R. Cunningham, PhD
Communication Dept.

RE: 052.05 - Communication Between Student Organizations

Dear Doctor Cunningham:

The revised consent form for the above study, dated 1/27/05, has been received by the Human Subjects Protection Program office and contains the changes requested in the Institutional Review Board (IRB) email letter of 1/26/05. The following items have been approved:

- Protocol dated 1/27/05
- Revised informed consent dated 1/27/05

Your study now has final IRB approval. Please note that the IRB operates in accordance with ICH guidelines and is further mandated by the Office of Human Research Protection (OHRP) and the Food and Drug Administration (FDA).

The study has approval through 1/31/06, when the approval expires. You should complete and return the Progress Report/Continuation Request Form EIGHT weeks prior to 1/31/06, in order to ensure that no lapse in approval occurs.

Federal regulatory agencies have indicated that studies must be re-approved by the IRB before the expiration date. Otherwise, the approval will expire and no further subjects can be entered until the study is re-approved by the Committee (study suspension). It is the investigator's responsibility to obtain re-approval, including any changes needed in the consent form, prior to the expiration date.

Office of Research Approval

Please note that, as indicated on the Review Certification Form, if this study meets the definition of a sponsored activity, a Proposal Clearance Form must be completed and filed with the Office of Grants Management (OGM) at the University (502-852-6512). If a study has an industry sponsor, a Multi-institutional Research Application will need to be filed with the Office of Industry Contracts (OIC). In that case, separate approvals by the OGM, OIC and the IRB will be required prior to activation of the proposed study.

The attached documents have been approved by the University of Louisville IRB. Please print these out for your use. No further letters will be generated from our office.

Best wishes for a successful study.

Sincerely,

Norma I. King
Program Assistant Senior
UofL Human Subjects Protection Program
MedCenter One, Suite 200
501 East Broadway
(502) 852-5188

After review, IRB protocol #054-120-UL submitted by Brian Laythe from the University of Louisville has been approved by the University of Southern Indiana's IRB.

I can follow up with an "official notice" early next week. Please review the comments below.

Thank you.

M. Heather Dragoo
Sponsored Research Specialist
Sponsored Research Office, WA 104K
University of Southern Indiana
8600 University Blvd.
Evansville, IN 47712
(812) 465-1126
mhdragoo@usi.edu
www.usi.edu/gr&res/ogsr.asp

UNIVERSITY of LOUISVILLE
dare to be great

HUMAN SUBJECTS PROTECTION
PROGRAM OFFICE

University of Louisville
MedCenter One, Suite 200
501 E. Broadway
Louisville, Kentucky 40202-1798

Office: 502-852-5188
Fax: 502-852-2164

January 13, 2006

Michael Cunningham, PhD
Communications - University of Louisville
Louisville KY 40292

RE: Study #052.05 - Communication Between Student Organizations

Dear Doctor Cunningham:

The continuation request for the above study was reviewed by the Chair of the Institutional Review Board (IRB) through the expedited review procedure, according to 45 CFR 46.110(F)(8-9) and 21 CFR 56.110, since the continuing review of research previously approved by the convened IRB as follows: where (i) the research is permanently closed to the enrollment of new subjects; all subjects have completed all research-related interventions; and the research remains active only for long-term follow-up of subjects. **The study now has continued committee approval from 2/1/2006 through 1/31/2007.**

The following items were reviewed and approved:

- Progress Report, dated 1/5/06
- Protocol and Synopsis, not dated

The committee will be advised of this action at their next full board meeting.

Please submit a Progress Report/Continuation Request Form eight weeks prior to 1/31/07, in order to ensure that no lapse in approval occurs.

Best wishes for the continued success of your study. **Please send all inquires and electronic revised/requested items to our office email address at hsppofc@louisville.edu.**

Sincerely,

Laura Clark MD

Laura D. Clark, MD
Biomedical IRB Chair

LDC/nik