THE ROLES OF REMOTE POSITIVE CONTACT AND RECIPROCAL INTIMATE SELF-

DISCLOSURE IN REDUCING INTERGROUP DISTINCTIVENESS MOTVIES

by

Jessica J. Stephens

THESIS

Submitted in partial fulfillment of the requirements

for the degree of Master of Science in Psychology at

The University of Texas at Arlington

August 2020

Arlington, Texas

Supervising Committee:

Jared B. Kenworthy, Supervising Professor

Lauren Coursey

Daniel S. Levine

Table of Contents

Abstract

This study investigated intergroup distinctiveness motives (IDM) as a function of experimental manipulations of remote positive contact and reciprocal intimate self-disclosure (RISD). Using a confederate posing as an outgroup member, I predicted that these variables would interact to negatively impact IDM scores. All participants were Christian-identifying university students who previously completed a baseline IDM survey regarding Muslims. This study involved an online essay exchange with an unseen confederate who was posing as a Muslim. The positive contact manipulation involved confederates giving positive (or neutral) feedback for participant essays. There was no main effect of positive contact on IDM scores. The RISD manipulation involved an exchange of essays with content about a private and fond childhood memory. This manipulation also resulted in a null effect on IDM scores. There was no interaction between positive contact and RISD. Several explanations are offered to better understand the null effects.

The Roles of Remote Positive Contact and Reciprocal Intimate Self-Disclosure in Reducing

Intergroup Distinctiveness Motives

The use of the internet to form and strengthen connections with others is becoming increasingly ubiquitous across the world. Modern technology devices, such as smartphones, computers, tablets, and the like, provide most of us with more efficient ways to stay productive and stave off boredom. Might remote (i.e., online) methods of communication also serve a purpose beyond what appears at face value? Could forming new and remote connections with those who we believe we are inherently distinguished from- perhaps those with whom we assume we disagree- be a new way to combat the faulty belief systems that impede intergroup (i.e., groups that distinguish themselves from one another) bonding? Societal unrest and upheaval, we have seen, often inherently result from the fissures humans create to separate themselves from one another. Naturally then, it is a worthy pursuit to use modern communication to our collective advantage and to mend these fissures, if we can.

The purpose of this study was to investigate the degree to which engaging in remote, positive contact and reciprocal intimate self-disclosure (RISD hereafter) with an outgroup member would result in reduced intergroup distinctiveness motives in a sample of university students. *Intergroup distinctiveness* refers to the perceived degree of separateness between one's ingroup and an outgroup (van Leeuwen & Harinck, 2016). Herein, the term *intergroup distinctiveness motives* (IDM hereafter) refers to an individual's self-reported motivation for clear, distinct perceived boundaries between the ingroup and an outgroup.

IDM can be thought of as a form of personal intergroup bias which is distinct from general prejudice. Rather, IDM refers to the degree of self-reported separation one perceives to indicate clearly defined boundaries between their ingroup and an outgroup. As such, identifying

and manipulating variables that were thought to negatively impact outgroup bias related to IDM became the focus of this research project. The variables of interest that were to be manipulated were defined in the following ways: (1) *Positive contact* involved a positive initial encounter with an outgroup member and (2) *RISD* involved a mutual exchange of private and personal information with an outgroup member. I will explain in more detail below why these particular variables were chosen for this study.

In a cross-sectional survey study of intergroup friendships between Catholic and Protestant students, Paolini, Hewstone, Cairns, and Voci (2004) found that the number of direct and indirect friendships formed across disparate groups could predict self-reported prejudice level and perceived outgroup variability (i.e., the differences one believes exist between the members of a rival group), with prejudice level reducing as both forms of these friendships increased. For outgroup variability, intergroup anxiety level was found to be a mediator when factored into the model which included indirect friendship count. Intergroup anxiety level was inversely associated with outgroup variability when included as a mediator, lessening as perceptions of variability within the outgroup increased in those with more indirect cross-group friendships. Intergroup anxiety levels were also found to have a strong association with reported prejudice levels and mediated the relationship between indirect friendship quantity and prejudice levels.

Tam et al. (2006), used survey methodology, including the implicit associations test (IAT), to investigate the roles of contact quantity and self-disclosure on implicit and explicit attitudes regarding age-distinguished outgroup members and ageism. It was found that self-disclosure was associated with greater positive intergroup attitudes, such that higher levels of contact quality and quantity predicted greater self-disclosure. Additionally, quality of contact

was found to be correlated with explicit outgroup attitudes. Further, self-disclosure was found to act as a mediator between predictor variables of contact quality and quantity and resulting empathy and anxiety levels. Anxiety levels were found to diminish as empathy levels increased when self-disclosure was included in a structural equation model.

Cross-Group Contact Quality

In a review of cross-group contact quality outcomes, Paolini et al. (2018) reported that prospective contact with an unfamiliar outgroup member was often perceived as a likely negative event, associated with anxiety and potential threat, even while actual contact with outgroup members tended to be positive in nature. Furthermore, while positive cross-group contact was more likely, negative cross-group exchanges commonly resulted in increases to one's negative outgroup biases and aversion of future exchanges with similar outgroup members. However, establishing positive contact across groups was associated with reducing outgroup prejudice and increasing cross-group cohesiveness. Contact with dissimilar groups was also suggested to play a role in other, seemingly unrelated outcomes, such as one's health and productivity. As such, understanding how to offset the inclination to avoid cross-group affiliation may be of great importance in an increasingly diversified and connected world.

Intergroup contact is a term describing a social interaction between members of different groups. Initial encounters between dissimilar group members have been found to result in stronger instilled prejudicial attitudes between the respective group members when perceived as a negative event (Dovidio, Schellhaas, Pearson, & Pearson, n.d.). Dovidio et al. (n.d.) found that the negative cross-group bias strengthening that often, though not always, occurred after an initial cross-group interaction was explained by how an individual assessed the encounter.

Aversive perceptions on behalf of a cross-group member tended to result in enhanced prejudicial attitudes.

When intergroup contact involves different group members interacting in a way that is relatively absent of stress and perceived threat, the exchange may be referred to as a positive intergroup contact. Positive intergroup contact has been found to correspond with increased affiliation across group members, or *cross-group friendships* (Christ et al., 2014). Even if the contact was only vicarious (i.e., imagined) by participants, positive cross-group contact diminished anxiety and stereotyping and enhanced positive attitudes towards outgroup members (Crisp & Turner, 2009).

Page-Gould, Mendoza-Denton, and Tropp (2008) found that stress level (as measured by its hormonal correlate- cortisol reactivity) resulting from an initial cross-group contact diminished after a positive contact and friendship formation. This likely suggests that positive contact with outgroup members reduces outgroup anxiety and increases the likelihood that one is willing to include them as a friend. While speculative, this may indicate that, after a benevolent encounter, one is more likely to think of someone who was once considered different, or an "other", as a member of an inner circle of friends- someone who is now liked and, perhaps, "alike". This may be particularly true when intimacy is established during the contact. Furthermore, instilling intimacy and an understanding of similarities between members of separate groups has been found to reduce outgroup anxiety and to enhance belief in one's personal ability to establish an affiliative future contact with an outgroup member (Ioannou et al., 2017).

Friendship development with outgroup members may diminish threat and anxiety responses that are common in interactions with unfamiliar outgroup members (Mendoza-Denton,

Page-Gould, & Pietrzak 2006). Cross-group friendship development typically involves RISD, or private and meaningful exchanges, during contact. Turner and Feddes (2011) examined the effects of RISD on prejudicial attitudes after the development of a cross-group friendship. For seven weeks, anxiety and attitudes towards outgroup friends were assessed in undergraduate students at two intervals: after the first week, and six weeks thereafter. It was determined that RISD significantly increased in these students over time and with repeated cross-group exposures. Further, intergroup anxiety was reduced and positive attitudes towards outgroup members increased for members of these friendships as the duration of RISD increased. This may suggest that continuous positive contacts and intimate exchanges are integral to the development of cross-group friendships and the reduction of negative cross-group prejudices.

Stephan (2014) proposed that factors such as anxiety, aversive cognitive expectations, and stress responses are commonly experienced in those who engage in intergroup contact. These negative biases and reactions upon interacting with an outgroup member occurred more often during a particular set of circumstances. These included, but may not be limited to the following: having strongly held outgroup biases; having previously had little, no, or aversive contact with outgroup members; and/or having strong ingroup membership identities. However, continued intergroup contact and friendship development have been suggested by Mendoza-Denton et al. (2006) to reduce cross-group anxiety by diminishing pre-established levels of the perceived threat of outgroup rejection and implicit prejudicial biases.

Allport (1954) described the observed enhancement of intergroup relations that occurred after individuals from different groups formed positive associations with one another in his influential *contact hypothesis*. Allport (1954) proposed several conditions of positive intergroup contact that would reduce negative prejudice towards outgroup members. Conditions included

equal group status, shared objectives, affiliative interactions, and approval/sanctions by some authority overseeing the exchange. Allport's theoretical conditions for reducing prejudice have been systematically supported by two meta-analytic reviews conducted by Pettigrew and Tropp (2006; 2013). It may be important to note, however, that Pettigrew and Tropp (2006) also discovered that Allport's conditions were sufficient, but not essential, for reducing prejudice.

White, Harvey, and Abu-Rayya (2015) discussed the results of several experimental studies involving remote cross-group contact. One of these studies (White, Abu-Rayya, & Weitzel, 2014) involved a new paradigm for studying remote cross-group contact, called the dual identity electronic contact (DIEC). In the framework, Muslim and Christian student participants were remotely exposed to all elements of Allport's contact theory as well as a form of cross-group reciprocal disclosure, called dual identity recategorization. Participants were asked to share their ideas about collective goals with one another as part of the intervention. Ratings for participant understanding of shared cross-group identity characteristics and shared cross-group goals were taken before and after the DIEC intervention. At the study's conclusion, it was found that the DIEC intervention provided both immediate and long-term (at 12-months) changes. These changes included enhanced outgroup knowledge, reduced intergroup anxiety, and lessened prejudicial attitudes. This was suggested to be due to a connection between increased outgroup information salience, cross-group member reciprocal communication, and reduced negative cross-group attitudes. However, this study did not account for the influence of reciprocal intimacy in the intergroup contact exchange, which may enhance the potency of the effect of remote interaction between dissimilar group members, particularly if combined with positive contact. It also did not specifically investigate IDM level.

Reciprocal Intimate Self-Disclosure

References to two or more individuals engaging in a meaningful shared exchange of deeply personal information will henceforth be referred to as reciprocal intimate self-disclosure (RISD). RISD has been found to mediate the relationship between cross-group friendship formation and trust as well as to establish more positive emotions towards outgroups (Kenworthy et al., 2016, Study 3). In their study, Kenworthy et al. (2016) established that RISD was associated with changes to the emotions and trust in cross-group friendships between Northern Irish Catholic and Protestant participants. Trust and emotional variables were found to be distinct from whether friendships were formed across group members without intimate intergroup exchanges. However, when RISD with an outgroup member was factored into the model, it was found to mediate the relationship between cross-group friendship and trust and positive emotions associated with outgroup members. As RISD is associated with positive outgroup emotions and perceived outgroup trustworthiness, RISD may be implicated in reducing anxiety and threat-perception levels associated with, and/or aggression towards, outgroup members. This has yet to be determined and is a partial motivation for the present study.

Self-disclosure has been found to play a role in the resulting strength of explicit prejudice towards outgroup members after direct or extended intergroup contact (Turner, Voci, & Hewstone, 2007). Four studies investigating intergroup contact and attitudes were described by Turner et al. (2007) in their review. It was reported that reciprocal self-disclosure mediated the relationship between cross-group friendships and explicit outgroup attitudes. The explicit outgroup attitudes of White and South Asian (UK) high school students changed in response to extended contact and friendship formation. This change was mediated by the degree of self-disclosure during the exchanges. RISD, when isolated, was found to be independently influential

in altering outgroup attitudes as well. Intimate self-disclosure exchanges with an outgroup

member resulted in enhanced empathy and increased the degree of importance attributed to

cross-group contact. The impact of RISD was reportedly due to increased cross-group trust as

well as with believing one was understood and responded to by the outgroup member during the

exchange.

     White et al. (2015) reviewed studies of intergroup relations, including RISD, via

electronic communication platforms, such as chatrooms. White et al. (2015) concluded that

RISD lays the foundation for forming positive outgroup attitudes in a lasting way. Electronic

cross-group contact has also been studied for its role in how one views the likelihood of

engagement in future cross-group contacts. It was determined that remote cross-group contact is

associated with increasing one's openness to exploring a future in-person contact with the same

outgroup member (Schumann, Klein, Douglas, & Hewstone, 2017). Cross-group online

communication was theorized to serve as a faster and more efficient system for reciprocal and

intimate partner exchanges than face-to-face communication, particularly if the partner's

outgroup membership identity was openly disclosed.

     Results of a cross-sectional survey administered to 484 secondary school children

revealed that cross-group friendship development between children fostered intimate self-

disclosure between them as well as other positive outcomes (Bagci et al., 2017). For South Asian

children included in the study, cross-group self-disclosure was found to mediate the relationship

between cross-group friendship quality and psychological well-being. Furthermore, self-

disclosure was found to act as a mediator, enhancing positive self-affirmations in both groups of

children (White and South African identifying) who developed cross-group friendships. The

authors also proposed that reciprocal intimate disclosure was likely one of the most influential

factors in fostering positive intergroup relationships. This was said to be due to this kind of exchange altering one's perspective-taking and empathy towards outgroup members and inciting them to reflect on and evaluate their acceptance of, prejudices towards, and interactions with outgroup members.

Grütter et al. (2017) assessed 941 (post-attrition) adolescents in Switzerland at two time periods (the onset of fifth grade and sixth grade) using a parallel latent-change score model. Within the participant pool, 39% reported non-Swiss nationality and 61% reported Swiss nationality. For this study, predictor variables included teacher ratings of student academic achievement on three criteria and student self-reports of the best friends they had in the classroom, with the cross-group friendship counts being determined from these social networks. Dependent measures included intergroup anxiety, inclusion of an outgroup member (in this case, intended inclusion of a low achieving child on behalf of a high-achieving child), intergroup trust, and intergroup sympathy. From time 1 to time 2, the number of self-reported cross-group friendships was found to predict the amount of change in individual levels of intergroup trust, with this change further predicting the amount of intended intergroup inclusion a child reported at time 2. Additionally, having cross-group friendships related to greater changes in sympathy for cross-group members from time 1 to time 2, with this change being associated with greater intended inclusivity of outgroup children being reported at time 2, indicating cross-group friendships related to greater sympathy for cross-group children, which predicted a stronger likelihood of intending to include low-achieving students. As such, this research suggests that experiences of trust and sympathy likely impact the inclusivity intentions of children as a result of developing close cross-group friendships.

Intergroup Distinctiveness Motives

As discussed previously, the belief regarding the meaningful separation one perceives between their ingroup and an outgroup is known as intergroup distinctiveness (Tajfel & Turner, 1979). The bias and inclination to draw contrasts between one's ingroup and an outgroup describe intergroup distinctiveness motives (IDM).

Tajfel (1982) discussed several forms of distinctions one might make in establishing intergroup distinctiveness. One method of cross-group differentiation involves individuals creating categories of *status*, such as hierarchical positioning, authoritative roles, access to resources, privileges, and punishments. Also, members may draw distinctions between groups by engaging in competitive or conflicting acts and later separating each group into "winner" and "loser" categories. Values, customs, and other overt behaviors were also discussed as being available to create a meaningful separation between groups.

Placing greater emphasis on intergroup dissimilarities over intergroup similarities has been linked with several outcomes. For example, in a survey of 156 unorthodox Israelis, it was found that perceptions of conflict of interest between the Jewish ultraorthodox and unorthodox were associated with heightened aggression, dehumanization, and reduced empathy towards the ultraorthodox. It was found that those participants who emphasized value discrepancies, or dissimilarities in beliefs, towards the ultraorthodox outgroup reported greater aggression towards the outgroup, even after controlling for ingroup favoritism (Struch & Schwartz, 1989).

Jetten et al. (2004) found that the motivation to draw distinctions between groups is particularly likely under certain circumstances. These include considering the outgroup to be a threat to the ingroup, having a high commitment to one's ingroup, having one or more salient,

competitive and distinctive features (e.g., they are both monotheistic religious groups), and/or

finding the outgroup to be a credible threat to some aspect of the ingroup.

Costa-Lopes, Vala, and Judd (2012) described intergroup distinctiveness as one's

conceptions of intergroup similarities and dissimilarities. For instance, if a group is to be

meaningfully understood by group members, differences need to outnumber similarities when

conceptually comparing one's own group to an outgroup. The emphasis on intergroup

differences, however, was proposed to result in the formation of negative evaluations, attitudes,

and beliefs about members of other groups. As such, intergroup distinctiveness was associated

with a similar phenomenon- *intergroup differentiation*. Intergroup differentiation is described as

the formation of a perceived cross-group divide that occurs after experiencing a threat to one's

intergroup distinctiveness (Ioannou et al., 2017).

Other explanations used to give insight into IDM include threat reactivity and reflection

of cross-group comparisons. The *reactive distinctiveness hypothesis* asserts that distinctiveness

bias is a reaction that is proportionate to the perceived threat level of the outgroup. When the

outgroup is seen as more dangerous, one perceives a more enhanced amount of difference

between their group and the outgroup. Conversely, *the reflective distinctiveness hypothesis*

involves using greater judgment and reasoning when creating a divide with the outgroup.

Factors, such as one's strength of identification with their ingroup and perceived levels of cross-

group similarities, like common goals or value systems, predict one's level of intergroup

distinctiveness (Jetten et al., 2005).

According to the principles of Tajfel and Turner's (1979) *Social Identity Theory*, ingroup

members establish an identity as a group member and interact with others in social situations in

such a way that is consistent with their group identity. This group identity is proposed to lead to

behaviors that maintain the status quo in the dominant ingroup. Social comparisons being drawn between groups may enhance one's feelings of group prestige. As such, one proposed explanation for why individuals draw parallels between their own group and others was said to be that creating and maintaining unique values for one's group may assist in making one's ingroup meaningfully distinguishable and to promote the ingroup's status. This may, in part, relate to underlying motives to establish and maintain intergroup distinctiveness.

Another theory behind why intergroup distinctions are created and maintained involves an individual widening the gap due to trying to fulfill roles in two or more groups that compete with one another. If one's group identities are harmonious and unrelated one may not feel the need to strongly distinguish the groups. However, if the disparate groups they identify with do possess conflicting ideological and/or behavioral standards, it can cause tension in the person that may be lessened by consciously dividing the groups. For example, a person might identify as both Catholic and gay. If one becomes aware of how these two groups, or category memberships, have conflicting beliefs and behavioral norms, they may lessen the stress associated with being a member of both communities by separating them from one another in larger and/or more meaningful ways. As a result, different ingroup "selves" no longer meaningfully compete with one another and cause discomfort because their competing goals overlap less and become less cognitively available.

Costa-Lopes et al. (2012) found that ingroup members tended to be stereotyped as *highly competent* and *warm* by other ingroup members. This was thought to function as a method of instilling pride in the self for their ingroup membership. Conversely, outgroup members were often viewed as direct competition for resources. Ingroup members tended to, therefore, label outgroups and outgroup members as belonging to one of three categories. These were envied

(highly competent, lowly warm), pitied (lowly competent, highly warm), or disgusting (lowly competent, lowly warm). These labels were purported to be used to create distinctions between outgroup and ingroup identification (see Fiske, 2015). If true, IDM may relate to the degree and availability of detailed categorical distinctions one draws for members of different groups. Therefore, establishing affiliative links across group boundaries may lead to reduced levels of outgroup threat perception and reduce the likelihood that one creates maligned categories to represent outgroup members.

Studies of Intergroup Distinctiveness Motives

Ingroup identification is described as the cognitive, emotional, and behavioral standards one believes are crucial to one's group and which match with "self"-standards. These may be associated with prejudice and stereotyping of outgroup members and establishing differentiation between groups. Gabarrot and Falomir-Pichastor (2017) found that the magnitude of one's *ingroup identification*, which was posited to be associated with one's perceived ingroup distinctiveness and member solidarity, was correlated with prejudice level. In this study, 84 French University students, after being surveyed on their beliefs regarding French social groups, were subjected to a two by two design. The four conditions involved manipulations of the following: (1) differing ingroup norms, where half of participants read poll results stipulating that most French people believed in equal need for welfare benefits and equal benefit distribution (i.e., the egalitarian norm condition) and the other half read that the results suggested most French citizens agreed with social group and benefit distinctions (i.e., the discriminatory norm condition), and (2) differing intergroup trait similarity conditions, wherein all traits (i.e., the high similarity condition) or half of traits (i.e., the low similarity condition) were said to be shared with an outgroup. The dependent measure levels of prejudice and stereotyping were gathered

from post-manipulation participant ratings of 16 unique traits (exclusive of the similarity

condition traits) positive and negative trait characteristics which were associated with their

representativeness of French nationals (i.e., their ingroup) and immigrants (i.e., the outgroup). A

regression analysis revealed a significant main effect for ingroup identification, such that higher

identification related to greater prejudice scores. Stereotyping was negatively related to ingroup

identification only in the high similarity and egalitarian group (i.e., the "loyalty conflict" group).

Perceived intergroup distinctiveness threats have been found to explain the effect of

imagined outgroup member similarities on self-reported outgroup attitudes. Intergroup

distinctiveness threats may be thought of as the degree to which one feels that two competing

groups share in status, goals, or other features. In an imagined cross-group contact induction,

perceptions of balanced cross-group similarities, wherein both commonalities and distinctions

were emphasized between participant's ingroup and outgroup, that one imagined resulted in

more favorable outgroup attitudes than high and low similarity conditions when intergroup

distinctiveness threats were manipulated to be low, suggesting a mediational role for intergroup

distinctiveness threats (Ioannou, Hewstone, & Ramiah, 2017, Study 1).

In a chapter on equity theory in intergroup relations, Caddick (1981) postulated that

unfair reward distribution, was one of the bases for maintained perceptions of distinctiveness

between groups. Group distinctiveness was said to be heightened in conditions wherein

illegitimate advantages were given to the outgroup, irrespective of either group's status. Further,

if one's own group was unfairly advantaged over the outgroup, one's justification for this

advantage relied, in part, on isolating one's ingroup from the outgroup.

Intergroup distinctiveness also appears to play a role in one's use of derision of a group

member's impersonator. An imposter vegetarian who was seen to eat meat was derogated more

strongly by ingroup members (i.e., vegetarians) than outgroup members (i.e., meat-eaters).

Interestingly, this effect was only found in participants in a group wherein a high intergroup

distinctiveness manipulation was imposed (Jetten et al., 2005).

Drawing distinctions between groups may serve another purpose as well. It may be the

case that cross-group friendship establishment is more likely if one is thinking of differences

between their own and the prospective friend's group. Danyluck and Page-Gould (2018) found

that priming perceptions of intergroup distinctiveness prior to a competitive game exercise led to

more positive contact and friendship formation than did priming intergroup similarity before the

exercise. Manipulating the group to consider intergroup distinctiveness before the competitive

intergroup contact led to greater affiliative behaviors, increased physiological synchrony with

their cross-group partner, and a greater likelihood of friendship formation, compared to those

who were primed to think of intergroup similarities prior to the interaction. As it has yet to be

confirmed whether contact influences distinctiveness motives, distinctiveness motives influence

future contact or an additional factor may be influencing both, it may be important to further

probe this relationship for clarification.

Kenworthy and Coursey (2020) examined IDM in Hindu and Muslim student populations

in India and the United States in a correlational study which served as the basis to test contact

and RISD as experimental variables in this study. They found that higher-quality outgroup

contact was associated with diminished negative biases towards outgroup members. Specifically,

greater positive outgroup contact related to higher levels of positive outgroup attitudes. Further,

more positive contact with outgroup members predicted more RISD, which mediated the link

between contact and increased positive outgroup attitudes as well as between contact and

reduced motives for intergroup distinctiveness. Taken together, contact quality and RISD were

associated with reduced ratings of IDM. This finding was deemed to warrant further examination, especially given the correlational nature of the design. Thus, an experimental design, involving manipulated contact quality and RISD, could help to further illuminate and conceptually replicate this effect. Testing this idea experimentally was the primary purpose of the current study.

In this investigation, it was proposed that positive contact and reciprocal intimate self-disclosure (RISD) would reduce reported intergroup distinctiveness motives (IDM). Both positive contact and RISD were experimentally manipulated in the context of an online exchange with an outgroup member. Positive contact was examined by manipulating feedback for the essay submitted by participants. Positive contact and neutral contact were distinguished by the nature of comments submitted as feedback on behalf of the confederate, with encouraging and affiliative remarks serving as positive contact and grammar and instruction-based remarks serving as neutral contact.

RISD was examined by altering the instructions on the essay prompt participants received and by altering the essay they received for review on behalf of the confederate. High and low RISD were distinguished by the nature of the essays exchanged between participants and the confederate. The high RISD essay related to a childhood memory of kittens being found in a park. The Low RISD essay involved the finding of magical lucky shoes. The confederate essay was uniform across RISD conditions, and in it the confederate disclosed their status as a Muslim outgroup member. Participants received similar instructions across conditions with the exception being the essay prompt, which was altered (see Appendix A) to match participants' RISD manipulation conditions before participant arrival.

Hypotheses

Hypothesis 1: It was predicted that participants who received positive feedback from a Muslim-identifying individual outgroup member would report lower scores for IDM than those who received neutral feedback in a similar context. As such, it was predicted that there would be the main effect of positive contact, such that those in the positive contact condition would produce lower mean intergroup distinctiveness motive levels than would those in the neutral contact (control) condition.

Hypothesis 2: It was expected that participants who engaged in RISD with a (Muslim) outgroup member would report lower scores for IDM. As such, it was predicted that there would be a main effect of RISD, such that those in the high RISD condition would produce lower mean intergroup distinctiveness motive levels than would those in the low RISD condition.

Hypothesis 3: It was predicted that there would be an interaction between the two independent variables, such that the simple effect of positive contact on reduced IDM would be greater for those in the high RISD condition than for those in the low RISD condition.

Method

The protocol of this experiment involved four experimental conditions. In each condition, a computer-based essay exchange took place between an unseen, Muslim confederate and a Christian-identifying university student participant. RISD and positive contact were manipulated independently to assess the independent and combined effects of these variables on IDM scores.

This study was conducted in two phases. In phase 1, an online survey was administered to assess prior contact with, attitudes towards, and IDM concerning the outgroup (i.e., *Muslims*).

The second phase of this study was completed in the lab and involved the main experimental design and protocol. The experimental portion of this study tested the influence of positive contact and reciprocal intimate self-disclosure (RISD) on IDM.

Participants and Experimental Design

Participants consisted of Christian-identifying undergraduate students ($N = 89$) currently enrolled at the University of Texas at Arlington and in the psychology department's SONA subject pool. Participants' religious affiliation as Christian was determined from the online, phase 1 questionnaire, which was completed by 713 participants total, 442 of which identified as Christian. The use of Christian participants was based on the large population of Christian students enrolled at the University of Texas at Arlington. Additionally, it was expected that Christians would likely have high scores, on average, for IDM related to Muslims, who served as the chosen target outgroup. Initial prescreening IDM scores for all Christian identifying participants in the pre-screener were higher ($M= 4.04$, $SD= .97$) than those who self-selected to take part in this study ($M= 3.93$ $SD= .93$). Participants were randomly assigned to one of four conditions in a 2 (positive contact vs. neutral contact) x 2 (high RISD vs. low RISD) between-subjects design. Due to some participants ($n = 5$) failing to respond to the survey question "Please choose the religious group that you belong to, or that best describes you:" with the requisite Christian option, they were not included in the pool of participants ($n = 84$) in the final analyses for this project.

Procedure

Phase 1: Survey. Phase 1 surveys included measures to obtain data regarding outgroup attitudes, IDM, and prior quality and quantity of contact with Muslims. These measures were

used to determine, among other things, normative levels of IDM concerning Muslims and were

subsequently used as control variables in ancillary analyses (see below).

       Phase 2: Laboratory Study. Upon arrival at the laboratory, participants were instructed

that they were taking part in an online writing exercise with a fellow student and were asked to

read and sign an informed consent document for their participation.

       In place of informing participants of the true nature of the study, a cover story was used.

This cover story informed participants that the study they were taking part in concerned the

quality of an online writing platform that may be implemented on behalf of the campus writing

center as a way of providing students with real-time and remote feedback on their written works.

OneDrive was to serve as this platform. Participants were instructed to only use the real-time

functions available in a OneDrive document to briefly introduce themselves and, later, to provide

feedback on the written work of their partner. This minimized deviations from the confederate

script (see Appendix A) and maintained interaction similarities across conditions.

       Contingency plans were in place for the arrival time differences between participants. If

participants arrived early at the laboratory, they were asked to sit in the primary experimental

room while waiting for their partner to show up. If participants arrived up to ten minutes late,

they were immediately ushered into the experimental room to begin the study. As the study

involved a real-time exchange with an individual who participants believed was scheduled for a

one-hour timeslot study, those who arrived more than ten minutes late were asked to reschedule.

This helped to maintain the realism of the experiment for these participants.

       After consenting to participate, participants were asked by the lab assistant to read the

prompt that informed them about the nature of the personal essay they were writing (See

Appendix B). The participant then used the *OneDrive* document to briefly chat with the

confederate research assistant, who was in an adjacent room. The confederate introduced

themself using a predetermined script in all conditions. This minimizes deviations from the

confederate script and increased the likelihood that there was the maximal similarity in the initial

exchanges across the four conditions.

Each participant then read instructions (see Appendix B) before spending ten minutes to

compose their essay. Each participant submitted their essay before the confederate to control for

order effects across conditions. There were two versions of the confederate essay, prepared for

the RISD and control conditions, respectively.

Microsoft OneDrive was chosen for several reasons. First, participant confidentiality can

be upheld with the creation of an experiment-specific google account that may be used for all

participants. This account was simultaneously linked with another experiment-specific google

account used by the confederate. Additionally, *OneDrive* allows for copy and paste between a

Microsoft Word document and the Google online document being used. This feature was

implemented in this study. Further, all documents could be edited and commented on between

the two account users in real-time. The comments and/or the words were written within the

actual document served the feedback and chat features of this study. Finally, all exchanges were

automatically saved to a secure University of Texas at Arlington campus server system.

Participants were verbally instructed to use the real-time comment functions available in

OneDrive to briefly introduce themselves, greet one another, and to provide feedback on the

written work of their partner. This function allowed for all exchanges between the two to be

automatically saved with the document and showed a timestamp of the exchange.

Reciprocal intimate self-disclosure manipulation. For the reciprocal intimate self-

disclosure (RISD) factor, content instructions differed between the high and low RISD

experimental conditions. Participants in the high RISD condition were asked to describe an autobiographical memory of a fond event in their life that few others were aware of and that they found to be personally significant (see Appendix C.2). It was determined that valence of the event, if negative, would interfere with the manipulation and, as such, a positive memory was chosen as the prompted source to be written about. The confederate essay in the RISD manipulation condition was described as a childhood memory involving a family trip to the park resulting in a found kitten that became a pet (see Appendix D.1). In the low RISD condition, participants were asked to write a short creative story about a magic object that they interact with. The confederate essay given in the low RISD condition detailed a story of the confederate interacting with a magical pair of shoes (see Appendix D.2). Further, participants submitted their creative story essay for general feedback and were tasked with editing a fabricated creative narrative of the confederate in the low RISD condition. Intimate self-disclosure was assumed to be excluded from the control condition, as a creative story was being fabricated and there was no sharing of a personally meaningful and private event.

Positive contact manipulation. Confederate feedback differed between positive contact and neutral contact conditions. Participants in the positive contact condition submitted their essays first and received feedback after the confederate took the requisite amount of time to read over the essay. Participants were asked to limit their comments to those which pertained to writing style and ability. Participants observed that the confederate had the same prompt, as they were viewing an identical document. Participants in the positive contact condition were given highly affirming and encouraging feedback for their ability and essay content from a predefined script that was identical for all participants in the positive contact condition (see Appendix C.2). Participants in the neutral contact condition were provided with neutral feedback that was

identical for all participants in the control condition (see Appendix C.3).

 Post-session surveys. The OneDrive portion of the experiment terminated after one of

two events. Either a participant informed the lead investigator that they were finished with

providing feedback on their essay exchange partner's work or the five minutes allotted for

participant feedback, which was determined by a keeping track of time on a device kept within

the lab room, had elapsed. At this point, the manipulation portion of the experiment concluded.

 Participants were then informed by the lab assistant that they were going to be

completing subsequent surveys regarding their participation in, and their critique of, the

OneDrive exchange. The survey administered to determine post-manipulation intergroup

distinctiveness motives was administered after first gathering attention and manipulation check

survey data (see Appendix E, F, and G). All surveys were completed in the same room and using

the same computer as that used for the outgroup interaction. These surveys were directly relevant

to the study that they just completed and supported the cover story.

 After participants signaled that they had completed these surveys, they were told that they

would then be completing a pre-screener for a subsequent study that would be conducted in the

lab in the following semester. Participants were told the survey they would be completing was

unrelated to the editing platform study they just took part in. They were further told this follow-

up survey was a pre-assessment to determine their eligibility in an upcoming thesis study on

group dynamics and attitudes and that this was a large scale-study that all participants in the

Social Research lab were being asked to complete. Once informed of the cover story, participants

completed the primary dependent measures within 5-10 minutes from the end of the partner

interaction phase on the same computer as that used for the manipulation and control conditions.

Participants were then asked four questions regarding whether they detected a deceptive element

to the study (see Appendix H). After this, participants were debriefed online about the true nature

of the study and were allowed to have their data discarded before being dismissed.

Measures

   Attention Check. An attention check was employed which examined the attention and

retention of details on their partner. Two questions regarding details that were disclosed during

the interaction were put forward. These inquired about the name of the confederate essay

exchange partner and the content of their essay (see Appendix F).

   Manipulation Checks. Manipulation check items were masked and embedded within a

17-item survey (see Appendix G). Participants completed this survey after the writing exchange

exercise and manipulation. The survey posited various questions, many of which pertained to the

cover story regarding the essay exchange forum they used to receive the manipulations. This

allowed for the items to be "hidden" within a set of survey items that pertained to the essay

exchange cover story.

   Positive contact manipulation check items that were initially proposed (from Tausch,

Hewstone, & Roy, 2009) for this study were mistakenly omitted from the final survey. As such,

two items, each using a 5-point (1 = Not at all, 5 = Very much) scale, were drawn from the 17-

item RISD manipulation check survey pool (see Appendix G) and analyzed as potential positive

contact manipulation check items. The items were: "*To what extent do you feel were you

understood by your partner today?*" and "*To what extent do you believe your partner was able to

judge your writing ability today?*". These items were masked within a larger set of 17 items. An

exploratory factor analysis revealed that these items loaded strongly together and could be

meaningfully distinguished from other items on the scale. The principal component analysis

revealed factor loadings of .58 for the two items, with 21.17% of score variance explained by

these items. A subsequent reliability analysis found that these items correlated well with one

another, $r(89) = .57$, $p < .001$, These items were subsequently averaged to form a positive contact

composite variable that was employed in future analyses.

For the RISD manipulation, a four-item, 5-point (1 = Not at all, 5 = Very much) scale

was constructed to examine the potential influence of the RISD manipulation. This scale

included the following items: "*How personally meaningful was the essay you shared today?*",

"*How private was the essay you shared today?*", "*How intimate did you think the essay of your*

partner was?", and "*How intimate was your essay?*". An exploratory factor analysis found that

these four items loaded highly with one another and could be meaningfully distinguished from

other scale items. It was also found that the four RISD items loaded strongly with an identically

scaled item included to assess perspective-taking: *"To what extent did you try to imagine how*

you would feel if you were the person written about in the passage", which would be expected

for outcome measures tapping into mutual and meaningful sharing between two individuals. A

subsequent inter-item correlational analysis found that the initial four items correlated well with

one another ($\alpha = .73$). These items were then averaged and a RISD manipulation check

composite variable was used in future analyses.

Dependent Variables. Motives for intergroup distinctiveness were assessed as the

primary dependent measure in this study by utilizing a questionnaire (see appendix E and I).

Participants were first asked which religious group they belong to. They were subsequently

asked a series of questions that were based upon their initial response choice (five participants

from the pool who identified as non-Christian or declined to answer were administered an

alternative survey (see Appendix I) and were not included in the analyses. All Christian-

identifying participants ($n = 85$) were subsequently administered a set of fourteen questions (See

appendix E). Five survey questions pertained to attitudes towards non-Muslim groups, such as those identifying as Agnostic. These were included to mask the true purpose of the survey. Nine additional items were included which pertained to participant beliefs about Islam and Muslims. Likert response options were on a seven-point scale and ranged from strongly disagree to strongly agree. Some of the items were reverse coded. Example items from the scale include the following: "*There are important differences between Christianity and Islam.*", and "*As far as I am concerned, Christianity and Islam have nothing to do with each other*". A reliability analysis found that the IDM items (see Appendix E) related strongly with one another ($\alpha = .86$).

Results

Attention Checks

Attention check items indicated that the majority of participants could recall the name of their essay exchange partner (73%) and that all (100%) could provide details that accurately described the content of the essay and/or feedback of their partner accurately.

Manipulation Checks

The RISD manipulation, involving the writing of an essay pertaining to a fond childhood memory and the reading of a confederate essay with similar content, was tested for efficacy by comparing high and low RISD groups to determine whether composite RISD manipulation check scores differed between these two groups. Mean scores for the composite RISD manipulation checks in the high RISD condition ($M = 3.01$, $SD = .84$) and the low RISD conditions ($M = 2.25$, $SD = .75$) did significantly differ, $F(1, 87) = 19.84$, $p < .01$. This suggests that RISD manipulation check responses differed significantly by RISD condition, indicating that these items were effective as RISD manipulation checks.

Means for the RISD manipulation check responses were also assessed relative to contact condition placement of participants as well. There were no significant differences in mean RISD manipulation check responses between the neutral contact (M= 2.53, SD=.80) and positive contact (M=2.59, SD=.93) conditions, $F(1, 87) = .098$, $p = .76$. This suggests that RISD manipulation check responses did not significantly differ by contact condition, indicating that these items were ineffective as contact manipulation checks. The results of both analyses suggest that RISD manipulation check items were likely more valid as indicators of reciprocal intimate self-disclosure than of positive contact.

The positive contact manipulation, involving receipt of encouraging feedback on one's submitted essay, was tested for efficacy by positive and neutral contact groups to determine whether composite contact manipulation check scores differed between these two groups. Mean scores for the composite contact manipulation check items for participants in the positive contact condition ($M = 3.49$, SD =.96) and the neutral contact condition ($M = 3.26$, $SD = .80$) did not significantly differ, $F(1, 87) = 1.52$, $p = .22$. This suggests that the contact manipulation check responses did not significantly differ by contact condition, indicating that these items were ineffective as contact manipulation checks.

Further, mean scores for the composite contact manipulation checks for the low RISD condition ($M = 3.18$, SD =.92) and high RISD condition ($M = 3.68$, SD =.77), did significantly differ, $F(1, 87) = 7.25$, $p = .01$. The results of both analyses suggest that contact manipulation check items were likely more valid as indicators of reciprocal intimate self-disclosure than of positive contact[1]. It is possible that the inclusion of the initial positive contact manipulation

---

[1] Contact manipulation check items that were deemed as being more valid measures of the manipulation were approved to be implemented in this study yet were unable to be included with analyses, based upon there being an insufficient amount of data. Only seven participants received

check items that were to be included in this study would have been more effective at determining

the efficacy of the contact items. Unfortunately, these items were omitted from the set of surveys

given to participants in this study.

Hypothesis Tests

       Hypothesis 1. To test Hypothesis 1, a two-way ANOVA was conducted to examine the

presence of a main effect for contact quality on IDM. IDM scores were subjected to a factorial

analysis of variance having two levels of contact (positive, neutral) and two levels of RISD (yes,

no). All effects were statistically insignificant at the .05 significance level. The main effect of

contact yielded an F ratio of $F(1, 81) = .191$, $p < .663$, indicating that the score was not

significantly lower for positive contact conditions ($M = 3.79$, $SD = .97$) than for neutral contact

conditions ($M = 3.763$, $SD = .91$). The hypothesis that the group receiving a positive contact

manipulation would produce lower scores for IDM than would the group receiving neutral

contact was not supported.

       Hypothesis 2. To test Hypothesis 2, a two-way ANOVA was conducted to examine the

presence of a main effect for RISD on IDM. The main effect of reciprocal intimate self-

disclosure yielded an F ratio of $F(1, 81) = .03$, $p = .87$, indicating that the mean score for IDM

attitudes was not significantly lower in the high reciprocal self-disclosure group ($M = 3.76$, $SD =$

94) than in the low reciprocal self-disclosure group ($M = 3.77$, $SD = .95$). The hypothesis that

the group receiving reciprocal intimate self-disclosure would evidence lower scores for IDM

---

these manipulation checks before the COVID-19 Pandemic. This study was, therefore, halted in
March of 2020, as the future operational status of the campus was unknown at the time of the
event. The data that had been collected before the campus closure was deemed sufficient to use
for analyses and reporting purposes. Subsequent positive contact manipulation check items that
were proposed for the Spring of 2020 were included for fewer than ten participants, which was
not sufficient to determine whether or not these manipulation checks were significant indicators
of the efficacy of the contact condition manipulation.

than the control group was not supported.

Hypothesis 3. To test Hypothesis 3, a two-way ANOVA was conducted to examine the presence of an interaction between positive contact and RISD. The interaction effect was also non-significant, $F(1, 81) = .607$, $p = .44$. The hypothesis that the interaction between positive contact and reciprocal intimate self-disclosure would have a greater combined effect in lowering the mean of IDM attitudes scores was not supported (see Figure 1).

Exploratory Analyses. Subsequent exploratory analyses were conducted to determine the possible effects of participant suspicion of the nature of the experiment. Write-in responses regarding participant suspicion were first analyzed as potential confounding variables (see Appendix H). Average rater suspicion scores were obtained for each suspicion item after finding high agreement across three raters.

The composite ICC coefficients for the three raters were then included in four distinctive General Linear Models, one for each suspicion item, as potential confounding variables. An Analysis of Covariance of the average RA ratings of suspicion for each participant was included as a covariate, while positive contact and reciprocal intimate self-disclosure (RISD) served as fixed factors in the model and post-manipulation composite IDM scores served at the dependent variable in the model. Results indicated that average suspicion ratings did not significantly influence participants' IDM scores.

A Pearson correlation was conducted to assess the relationship between the prescreening IDM scores and the independent variables. There was no correlation between the prescreening IDM averages and the two independent variables, suggesting that the randomization procedure was successful.

Prescreening IDM scores ($M = 3.93$, $SD = .93$) and post-manipulation IDM ($M = 3.77$, $SD = .94$) composite IDM scores were initially strongly correlated with one another $r(82) = .71$, $p < .001$. Prescreening IDM composite score level did not significantly differ from post-manipulation composite score level when the scores were assessed as repeated measures $F(1, 81) = .27$, $p = .10$. Prescreening IDM scores were also analyzed as a covariate, with positive contact and RISD serving as fixed factors in the model and post-manipulation composite IDM scores as dependent variables in the model. Prescreening IDM scores were not found to significantly relate to post-manipulation composite IDM scores when included as covariates in the model. This suggests that these scores did not influence post-manipulation IDM scores over and above the influence of the manipulations.

A correlational analysis was conducted in order to determine whether there was a relationship present between mean IDM level and RISD manipulation check composite mean scores, regardless of the experimental condition. There was no significant relationship between the two measures, $r(85) = .11$, $p = .32$.

General Discussion

The goal of this thesis project was to investigate the unique and interactive effects of a single instance of a remote and positive contact and a reciprocal and intimate exchange (i.e., RISD) between an individual and an outgroup member on resulting perceptions of outgroup similarity/dissimilarity, or intergroup distinctiveness motives (IDM). It was expected that those in a positive contact condition would report lower IDM scores than those in a neutral contact condition, that those in a high RISD condition would report lower IDM scores than

would those in a low RISD condition, and that positive contact and RISD would interact to yield the lowest IDM scores.

None of the hypotheses were supported. Contrary to the first hypothesis, participants who received remote, positive feedback from a self-identified Muslim outgroup member did not report significantly lower scores for intergroup distinctiveness motives (IDM) than those who received neutral feedback. Contrary to the second hypothesis, participants in the high RISD condition did not report significantly lower scores for IDM compared to those in the low RISD condition. Contrary to the third hypothesis, there was no significant interaction effect that resulted from combining the two independent variables of positive contact and high RISD on IDM scores.

This study involved some mistakes and limitations that I hope to have learned from. Several insights gained throughout this research project and potential explanations for its results will now be addressed below. Thereafter, suggestions for improvements and alternatives to projects of this kind will follow. Finally, a broad discussion of the importance of research of this kind will conclude this work. I hope that this project can be used to improve research on intergroup attitudes and related variables.

Limitations

At the onset of this project, participants were exposed to instructions administered by different lab assistants. Several lab assistants were trained on instructing participants, and on overseeing their successful completion of the experimental manipulations and surveys. These assistants came into the lab on different days of the week at varying times. As such, different lab assistants instructed different participants taking part in the study in the initial days of running the project as a function of their schedules. It was soon determined that the lack of uniformity in

the presentation of the instructions for participation could create a potential confound- unduly influencing the outcome measures. In the third week of running participants in the study, I decided to maintain uniformity within the experimental design by fulfilling the role of instructing and monitoring participants in the lab as often as possible. Beyond signing the participants into the lab to take part in the study, other research assistants in the lab later had minimal interactions with participants. Future studies of this kind might employ a design wherein minimal interactions between participants and various lab assistants take place. Doing so from the onset of the project would be preferred to maintain a uniform design. This may reduce the likelihood of researcher-induced differences in how participants respond to the manipulations.

An additional limitation involved my role in overseeing this project and the participants involved in it. The interaction that participants had with me may have influenced the response of participants in addition to the influence of one or both manipulations for several reasons. First, it should also be noted that I was not blind to the experimental conditions. This could have confounded the results due to the lead investigator treating participants in different ways based upon their condition assignment, which was known to the investigator. This may have occurred even without my being aware of it. Consequently, some participants may have implicitly judged that they were taking part in a sham paradigm, even if they did not indicate suspicion when later surveyed. Future iterations of this study should eliminate the direct contact between the participants and the head investigator.

Second, participants spent more time engaging in conversation with the lead investigator than with their essay exchange partner. This was, perhaps, poorly thought out. The interaction between the head investigator and the participants may have been more impactful than the contact exchange, even if only because less time was spent in the latter exchange than in the

former. Future versions of this project might eliminate a large part of the role of the head investigator and replace their part with online instructions.

Also, the instructions given by the investigator may have been overly verbose, complicated, and time-consuming. Participants with differing attentional capacities, verbal self-efficacy, and verbal comprehension levels may have responded in different ways. The instructions, which were spoken intermittently throughout the entire experiment, were likely weighted with a great deal of importance on behalf of participants. This could have led them to be more engaged with the cover story exercise than with outgroup member interactions. Future designs of this study might eliminate continuous instruction and employ simple and concise directions and sham exercises for participants to take part in. This may reduce the likelihood that intricacy in the sham design aspects of the study disparately impacts individuals of differing ability levels.

In a similar vein, the cover story itself required that participants engage in a reviewed and remarked upon writing exercise. This may also have impacted participants of different verbal ability levels differently, which could have confounded results. An alternative paradigm might not require participants to engage in a writing exercise that was to be evaluated by another individual, who was a stranger. Performance evaluations on behalf of an outgroup member have been purported (Stephan & Stephan, 2017) to lead to feelings of anxiety and perceptions of threat due to triggering a self-protective focus when one is isolated from the ingroup during such an exchange. This may have impacted participants in such a way that influenced how they responded to the manipulations. An alternative design that eliminates the performance evaluation of the self-identified outgroup member might be employed in future studies of this kind.

Additionally, there was a lack of choice in the engagement of reciprocal intimate self-disclosure (RISD) with the confederate. In a typical friendship, one can select when, how, and with whom to share with meaningfully and privately. This project required that participants engage in RISD with a stranger and used written methods of disclosure, rather than spoken. As such, the RISD manipulation may have been too impersonal or unrealistic, rendering it ineffective at tapping a more valid form of the variable.

The design of the positive contact condition manipulation may have been weak or otherwise ineffective. An attention check was conveniently built into the online platform. However, many participants did not respond to it and had to be instructed to interact with the attention check (i.e., a highlighted and bolded prompt that stated "Show *sic* hidden replies"), to read the comments that served as the positive or neutral contact manipulations. The platform in which they were written automatically hid the confederate's comments after two of their replies were generated. This required that participants interact with the platform by clicking on a prompt to successfully read the comments and receive the manipulation. Many participants were likely not impacted by the manipulation or control conditions appropriately as they were not being administered the contact condition as it was originally intended. This may partially explain why the positive contact manipulation did not impact the participants in a way that was originally anticipated. In the second semester of running this project, verbalized instructions were altered to address this. Even still, several participants were noted to not respond to the built-in attention check until verbally prompted to do so, possibly influencing how they responded to the contact manipulation. In the future, the head investigator would ensure that participants received the contact manipulations without prompting and/or uniformly, with similar presentations across all conditions aside from the manipulation/control aspect of the conditions.

Additionally, the manipulation check items themselves could have influenced the participants' views about the true nature of the study. These items asked about the qualitative nature of the exchange that participants had with their partner and involved terminology related to trust, intimacy, and attitudes. These items were administered before the final survey items on IDM. If participants responded to these items differently, as based upon the words priming implicit biases, this may have led to differences in levels of the dependent variable that were observed in the results even without leading to differences in participant suspicion ratings. Future iterations of this study would employ the manipulation check items both before and after the main manipulation survey to test for potential ordering effects of their presentation.

It is also possible that initial participant distrust in Muslim outgroup members influenced how they responded to the manipulations. It has been discussed by previous researchers (Turner, West, & Christie, 2013) that distrust acts as a mediator of the effects of contact on intergroup attitudes, likely because trust influences the willingness with which one is amenable to being vulnerable, cooperate, and engage in conciliatory acts across groups. Future iterations of this study might employ a cooperative remote exchange, such as a collaborative creative exercise, to test whether cooperative exchanges enhance the effect of remote and positive contact, as has been suggested to be the case by Kuchenbrandt, Eyssel, and Seidel (2013).

It is also possible that the contact manipulation may have seemed disingenuous to some and may have primed implicit distrust in these participants, particularly those with lower verbal self-efficacy. Comments, such as, "This was wonderfully written.", or "I am so impressed with how well you did at this.", may have distracted participants who were inclined to focus on the merit of their work and prompted them to reread their essays rather than focus on the contact condition feedback remarks. Further, if the participants judged their writing quality to be poor,

they may have determined that the self-identified outgroup member was deceptive or

sycophantic. The neutral contact comments "The proper format was utilized" and "The

instructions in the prompt were followed" may or may not have led to a response of this kind.

Unfortunately, the proposed positive contact items that were originally intended for

inclusion in the analyses for this study were accidentally omitted until the second semester of

running the participants. During this time, due to the unforeseen pandemic event of 2020, the

project was cut short and data collection ceased after only seven participants took part in the

positive contact manipulation check. I regret the oversight and hope to have learned a valuable

lesson about the need to be diligent and thorough in record-keeping and in executing a project

such as this. Had these items been available to use as manipulation check items, there would

have been a greater degree of understanding as to the efficacy of the contact manipulation, and

adjustments could be made to strengthen the manipulation.

Furthermore, the cover story may have been influential in altering participant responses

to the manipulations. Participants were asked to write an essay under time pressure, which may

have initiated negative affect and/or a physiological stress response in some, which was not

accounted for. The knowledge that participants had of a critique of their written work may have

influenced the responses of participants to the manipulation conditions as well. Additionally, this

evaluation was administered on behalf of a stranger who self-identified as an outgroup member.

This could have triggered unforeseen responses in participants in addition to those instilled by

the manipulation levels.

Finally, the cover story may have been too effective at distracting participants from the

true nature of the study. In effect, this may have led to participants investing in the completion of

the parameters of the writing exercise to a degree that diluted the impact of one or both

manipulations.

Future replications of this study may include a verbal self-efficacy survey to address

whether this influenced the way that participants responded to the contact manipulation and/or

the execution of the cover story. It may be beneficial to eliminate any potential variables that

might instill stress and negative affect, as these could have influenced the way that participants

reacted to the manipulation conditions. It would also likely be important to keep a cover story

simple and rather benign so as not to impede upon the efficacy of the administration of the

independent variable levels.

Future Directions

I would alter several elements in future versions of this study in the hopes of improving it

and making a more impactful contribution to the study of prejudicial attitudes. Studies of this

kind may be conducted under different circumstances in the hopes of enhancing the efficacy with

which the variables of interest are analyzed and measured.

Such alterations might include the following: a cover story that involves little to no time

pressure or performance evaluation pressure, instructions that are more concise and which

participants can read (or view in video format) in order to minimize unnecessary contact with lab

members, a contact manipulation that is more obvious and more easily interacted with on behalf

of participants, manipulation checks that are administered for both manipulation conditions,

manipulation conditions that are likely to be stronger and more valid sources of influence on the

outcome measures than tertiary variables (i.e., sources unrelated to the independent variables that

impose changes on levels of the dependent variable), a double-blind procedure, follow-up

measures of the dependent variable, pre-test data collection on participant intergroup threat (i.e.,

the perceived dangerousness of an outgroup) and trust levels, and administering manipulation check surveys, at random, either before or after the dependent variable measures to account for ordering effects.

Furthermore, different versions of the experimental conditions might improve upon the current study. Extending the contact manipulation duration, altering the content of the reciprocal intimate self-disclosure (RISD) manipulation, using multiple time-point exposures to the variables of interest within a longitudinal framework, using online, face-to-face contact with the cross-group interaction partner, and/or including a more benign cover story might all enhance the study.

As an example of an experimental procedure that might improve upon the current design, participants could be tasked with writing on a short prompt that they will post to a chat partner- who will later be observed/read to be an outgroup member and who will be directly observed by them- to test some feature of an interface, such as Zoom, for an organization, such as their university.

The high RISD manipulation would involve a prompt asking participants to write a short biography that includes details about their family and their prospective interpersonal and occupational aspirations. A word-count limit, rather than a time-limit, a might be imposed instead. Participants could be asked to compose their work in a lab room prior to the interaction with the outgroup member, as the absence of extraneous elements might enhance the effect of the manipulations during the contact. The control condition for RISD could involve writing about the nature of the courses they are currently enrolled (or the work they currently do if this study was broadened to include a wider demographic base of participants). Participants in both RISD conditions could then be asked to read what they wrote to the outgroup member they are

interacting with. Participants could engage in a contact manipulation via a chat, such as

Microsoft Teams or Zoom, wherein a list of predetermined positive contact phrases could be

given to participants on behalf of a confederate who is posing as a cross-group interaction

partner. The control condition for contact might involve no or neutral comments on behalf of an

outgroup member. Another potential control comparison could involve an ingroup member

administering the contact items so that outgroup and ingroup contact could be compared. The

cover story would be simple and neutral and might inform participants that they will be surveyed

on the ease with which they used the platform and/or whether they had any

connectivity/bandwidth issues. In this way, the cover story would be uniform in both conditions.

This design might allow for the demand characteristic, performance evaluation, and time

pressure components of the study to be eliminated as potential confounding variables may

employ more efficacious testing levels of the manipulation variable, and may be a simpler and

more valid test of the experimental conditions.

Concluding Remarks

Research into influences on group attitudes, specifically regarding beliefs about ingroup

identification and outgroup separateness, is highly relevant to a post-industrialized society.

Studies of this nature can provide valuable insights into the biases that inhibit the collaborative

goals of a society that is becoming increasingly more reliant upon cooperation and tolerance to

function ideally. Future studies on intergroup distinctiveness motives may provide valuable

insight into how to address and amend this and related biases of a potentially harmful nature.

With greater knowledge of the role of intimate exchanges and contact quality, more

affiliative ties and positive attitudes between outgroup members may result. Global citizens may

be empowered with a greater capability to alter their own and others' biases toward separating

themselves from those they perceive as dissimilar. It is possible, if not probable, that the lessened and fewer distinctions one draws between their "self" and the "other", the more positive and harmonious their future intergroup interactions will be.

I hope that future explorations of the influences of contact quality and reciprocated intimate disclosures on intergroup distinctiveness motives give greater insight into how these variables may be modified to benefit the individual and the larger society they belong to. For example, the influence of positive contact and intimate interactions between different group members may impact intergroup aggression, trust, positive attitudes, mutual conciliation, cross-group identification, and the establishment and course of cross-group friendships, all of which are potentially associated with intergroup distinctiveness motives. Future explorations into the nature of prejudicial attitudes, and how to offset them, may serve the goals of those who aim to propel society past an era wherein to hold such beliefs is not only potentially obsolete but also, it seems, insidious. The coming years may be crucial for researchers and citizens alike. It is increasingly important for us all to engage in open and meaningful explorations into how to relieve the sense of separateness. A more unified world is one in which we may all better navigate a progressive path forward in harmony.

References

Allport, G. W. (1954). *The nature of prejudice.* Addison-Wesley.

Bagci, S. C., Kumashiro, M., Rutland, A., Smith, P. K., & Blumberg, H. (2017). Cross-ethnic friendships, psychological well-being, and academic outcomes: Study of South Asian and White children in the UK. *European Journal of Developmental Psychology, 14*(2), 190–205. https://doi.org/10.1080/17405629.2016.1185008

Caddick, B. (1981). Equity theory, social identity, and intergroup relations. *Review of Personality and Social Psychology*, *1*, 219-245.

Christ, O., Schmid, K., Lolliot, S., Swart, H., Stolle, D., Tausch, N., . . . Hewstone, M. (2014). Contextual effect of positive intergroup contact on outgroup prejudice. *Proceedings of the National Academy of Sciences, 111*(11), 3996-4000. https://doi.org/10.1073/pnas.1320901111

Costa-Lopes, R., Vala, J., & Judd, C. M. (2012). Similarity and dissimilarity in intergroup relations: Different dimensions, different processes. *Revue Internationale de Psychologie Sociale, 25*(1), 31–65.

Crisp, R. J., & Turner, R. N. (2009). Can imagined interactions produce positive perceptions?: Reducing prejudice through simulated social contact. *American Psychologist, 64*(4), 231–240. https://doi.org/10.1037/a0014718

Danyluck, C., & Page-Gould, E. (2018). Intergroup dissimilarity predicts physiological synchrony and affiliation in intergroup interaction. *Journal of Experimental Social Psychology*, 74, 111–120. https://doi.org/10.1016/j.jesp.2017.08.001

Dovidio, J. F., Schellhaas, F. M., & Pearson, A. R. (n.d.). The Role of Attitudes in Intergroup

Relations. In *The handbook of attitudes* (Vol. 2, Applications, pp. 429-464). New York

(N.Y.): Routledge,Taylor & Francis group.

Fiske, S. T. (2015). Intergroup biases: A focus on stereotype content. *Current Opinion in*

Behavioral Sciences, 3, 45-50. http://dx.doi.org/10.1016/j.cobeha.2015.01.010

Gabarrot, F., & Falomir-Pichastor, J. M. (2017). Ingroup Identification Increases Differentiation

in Response to Egalitarian Ingroup Norm under Distinctiveness Threat. *International*

Review of Social Psychology, *30*(1), 219–228. DOI: http://doi.org/10.5334/irsp.22

Grütter, J., Gasser, L., Zuffiano, A., & Meyer, B. (2017). Promoting inclusion via cross-group

friendship: The role of individual change in trust and sympathy. Child Development. doi:

10.1111/cdev.12883

Harwood, J., Joyce, N., Chen, C.-Y., Paolini, S., Xiang, J., & Rubin, M. (2017). Effects of past

and present intergroup communication on perceived fit of an outgroup member and desire

for future intergroup contact. *Communication Research, 44*(4), 530–

555. https://doi.org/10.1177/0093650214565926

Ioannou, M., Hewstone, M., & Ramiah, A. A. (2015). Inducing similarities and differences in

imagined contact: A mutual intergroup differentiation approach. *Group Processes &*

Intergroup Relations, 20(4), 427-446. https://doi.org/10.1177/1368430215612221

Jetten, J., Spears, R., & Postmes, T. (2004). Intergroup Distinctiveness and Differentiation: A

Meta-Analytic Integration. *Journal of Personality and Social Psychology, 86*(6), 862–

879. https://doi.org/10.1037/0022-3514.86.6.862

Jetten, J., Summerville, N., Hornsey, M. J., & Mewse, A. J. (2005). When differences matter:

   Intergroup distinctiveness and the evaluation of impostors. *European Journal of Social

   Psychology, 35*(5), 609–620. https://doi.org/10.1002/ejsp.282

Kenworthy, J. B. & Coursey, L. E., (2020). Distant and dissimilar: Intergroup distinctiveness and

   contact in two Hindu/Muslim samples. Unpublished manuscript.

Kenworthy, J. B., Voci, A., Ramiah, A. A., Tausch, N., Hughes, J., & Hewstone, M. (2016).

   Building trust in a postconflict society: An integrative model of cross-group friendship

   and intergroup emotions. *Journal of Conflict Resolution, 60*(6), 1041–

   1070. https://doi.org/10.1177/0022002714564427

Kuchenbrandt, D., Eyssel, F., & Seidel, S. K. (2013). Cooperation makes it happen: Imagined

   intergroup cooperation enhances the positive effects of imagined contact. *Group

   Processes & Intergroup Relations, 16*(5), 635–

   647. https://doi.org/10.1177/1368430212470172

Mendoza-Denton, R., Page-Gould, E., & Pietrzak, J. (2006). Mechanisms for coping with status-

   based rejection expectations. In S. Levin and C. Van Laar (Eds.), *Stigma and group

   inequality: Social Psychological Perspectives* (pp. 151–170). Mahwah, NJ: Erlbaum.

Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact

   theory. *Journal of Personality and Social Psychology, 90*(5), 751–

   783. https://doi.org/10.1037/0022-3514.90.5.751.

Pettigrew, T. F., & Tropp, L. R. (2008). How does intergroup contact reduce prejudice? Meta-

   analytic tests of three mediators. *European Journal of Social Psychology, 38*(6), 922–

   934. https://doi.org/10.1002/ejsp.504

Paolini, S., Hewstone, M., Cairns, E., & Voci, A. (2004). Effects of Direct and Indirect Cross-

      Group Friendships on Judgments of Catholics and Protestants in Northern Ireland: The

      Mediating Role of an Anxiety-Reduction Mechanism. *Personality and Social Psychology*

      Bulletin, *30*(6), 770–786. https://doi.org/10.1177/0146167203262848

Paolini, S., Harwood, J., Hewstone, M., & Neumann, D. L. (2018). Seeking and avoiding

      intergroup contact: Future frontiers of research on building social integration. *Social and*

      Personality Psychology Compass, *12*(12), e12422. https://doi.org/10.1111/spc3.12422

Schmid, K., Hewstone, M., Tausch, N., Cairns, E., & Hughes, J. (2009). Antecedents and

      Consequences of Social Identity Complexity: Intergroup Contact, Distinctiveness Threat,

      and Outgroup Attitudes. *Personality and Social Psychology Bulletin*, *35*(8), 1085–

      1098. https://doi.org/10.1177/0146167209337037

Schumann, S., Klein, O., Douglas, K., & Hewstone, M. (2017). When was computer-mediated

      intergroup contact most promising? Examining the effect of out-group members'

      anonymity on prejudice. *Computers in Human Behavior*, *77*, 198-210.

      https://doi.org/10.1177/0146167209337037

Struch, N., & Schwartz, S. H. (1989). Intergroup aggression: Its predictors and distinctness from

      in-group bias. *Journal of Personality and Social Psychology, 56*(3), 364–

      373. https://doi.org/10.1037/0022-3514.56.3.364

Stephan, W. G. (2014). Intergroup anxiety: Theory, research, and practice. *Personality and*

      Social Psychology Review, 18(3), 239–255. https://doi.org/10.1177/1088868314530518

Stephan, W. G., Renfro, C. L., & Davis, M. D. (2008). *The role of threat in intergroup*

      relations. In U. Wagner, L. R. Tropp, G. Finchilescu, & C. Tredoux (Eds.), *Social issues*

and interventions. Improving intergroup relations: Building on the legacy of Thomas F.

Pettigrew (p. 55–72). Blackwell Publishing. https://doi.org/10.1002/9781444303117.ch5

Stephan, W.G. and Stephan, C.W. (2017). Intergroup Threat Theory. In *The International*

Encyclopedia of Intercultural Communication, (pp. 1-12). Y.Y. Kim (Ed.),

https://doi.org/10.1002/9781118783665.ieicc0162

Struch, N., & Schwartz, S. H. (1989). Intergroup aggression: Its predictors and distinctness from

in-group bias. *Journal of Personality and Social Psychology, 56*(3), 364–

373. https://doi.org/10.1037/0022-3514.56.3.364

Tajfel, H., & Turner, J. (2001). *An integrative theory of intergroup conflict.* In M. A. Hogg & D.

Abrams (Eds.), *Key readings in social psychology. Intergroup relations: Essential*

readings (p. 94–109). Psychology Press.

Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology,*

33, 1–39. https://doi.org/10.1146/annurev.ps.33.020182.000245

Tam, T., Hewstone, M., Harwood, J., Voci, A., & Kenworthy, J. (2006 Intergroup contact and

grandparent-grandchild communication: The effects of self-disclosure on implicit and

explicit biases against older people. *Group Processes & Intergroup Relations, 9*(3), 413–

429. https://doi.org/10.1177/1368430206064642

Tausch, N., Hewstone, M., Kenworthy, J. B., Psaltis, C., Schmid, K., Popan, J. R., Cairns, E., &

Hughes, J. (2010). Secondary transfer effects of intergroup contact: Alternative accounts

and underlying processes. *Journal of Personality and Social Psychology, 99*(2), 282–

302. https://doi.org/10.1037/a0018553

Tausch, N., Hewstone, M., & Roy, R. (2009). The relationships between contact, status and

prejudice: An integrated threat theory analysis of Hindu-Muslim relations in

India. *Journal of Community & Applied Social Psychology, 19*(2), 83–

94. https://doi.org/10.1002/casp.984

Turner, R. N., & Feddes, A. R. (2011). How intergroup friendship works: A longitudinal study of

friendship effects on outgroup attitudes. *European Journal of Social Psychology, 41*(7),

914–923. https://doi.org/10.1002/ejsp.843

Turner, R. N., Hewstone, M., & Voci, A. (2007). Reducing explicit and implicit outgroup

prejudice via direct and extended contact: The mediating role of self-disclosure and

intergroup anxiety. *Journal of Personality and Social Psychology, 93*(3), 369–

388. https://doi.org/10.1037/0022-3514.93.3.369

Turner, R. N., West, K., & Christie, Z. (2013). Out-group trust, intergroup anxiety, and out-

group attitude as mediators of the effect of imagined intergroup contact on intergroup

behavioral tendencies. *Journal of Applied Social Psychology, 43*(Suppl 2), E196–

E205. https://doi.org/10.1111/jasp.12019

White, F. A., & Abu-Rayya, H. M. (2012). A dual identity-electronic contact (DIEC) experiment

promoting short- and long-term intergroup harmony. *Journal of Experimental Social

Psychology, 48*(3), 597–608. https://doi.org/10.1016/j.jesp.2012.01.007

White, F. A., Abu-Rayya, H. M., & Weitzel, C. (2014). Achieving twelve-months of intergroup

bias reduction: The dual identity-electronic contact (DIEC) experiment. *International

Journal of Intercultural Relations, 38,* 158–

163. https://doi.org/10.1016/j.ijintrel.2013.08.002

White, F. A., Harvey, L. J., & Abu-Rayya, H. M. (2015). Improving intergroup relations in the

Internet age: A critical review. *Review of General Psychology, 19*(2), 129–

139. https://doi.org/10.1037/gpr0000036

van Leeuwen, E., & Harinck, F. (2016). Increasing intergroup distinctiveness: The benefits of

   third party helping. *Personality and Social Psychology Bulletin, 42*(10), 1402–

   1415. https://doi.org/10.1177/0146167216662867

Appendix A

Confederate Script for All Conditions:

"Hi there, my name was Ahmed/Fatima. What is your name?"

"It is nice to meet you."

If needed: "Good"// "How are you today?" // "Thank you!"//

"The assistant told me to start writing my essay. They told me I will read yours first, once you finish writing and paste it in the OneDrive form. Talk soon."

Appendix B

Your participation in this study will assist the university in determining the quality of an online writing exchange forum (i.e., UTA OneDrive Word Document Sharing) as a potential tool for the student writing center to use for giving real-time and remote feedback to students regarding their work.

You are being asked to write a short essay today. These essays should be <u>less than one page in length</u>.

You were timed. After 10 minutes has elapsed, you were asked by a lab assistant to do one of the following: submit your essay for feedback or give feedback to your partner after reading their essay submission. After the initial feedback segment is completed, which will take approximately 5 minutes, you will switch tasks with your partner. The exercise should take around 30-35 minutes total.

FEEDBACK INSTRUCTIONS: You and your partner should keep in mind the goal of delivering informative and constructive feedback for the written submission that you are reading today. This feedback, to be saved for our records and time-stamped, **will need to be submitted in the** "**Comments**" and "**Reply**" features within the OneDrive Document page.

ESSAY INSTRUCTIONS: Within a desktop version of Microsoft Word, please write a short (< 1 page) <u>personal essay detailing a fond and personally meaningful memory from your childhood that few others know about (*manipulation*) // creative essay that has you as the main character and story content that revolves around a magical object of your choice (*control*)</u>.

The essay text was copied and pasted into the OneDrive document only after the lab assistant informs you to do so. Again, you will only engage in copying and pasting the contents of your essay onto the online OneDrive Document page after being prompted to do so by the lab assistant.

> ***Manipulation condition**
>
> Essay Topic: Please describe a fond and meaningful memory from your childhood that few others know about.
>
> ****Control condition**
>
> Essay Topic: Please detail a short creative essay that has you as the main character and story content that revolves around a magical object of your choice.

The lab assistant will let you know whether you will initially submit or provide feedback after you have composed your essay. Please let the lab assistant know when you are ready to begin.

Please use the space below to paste the essay you wrote in a separate Word Document after the lab assistant has informed you that ten minutes have elapsed:

Appendix C

C.1

Manipulation Condition "Positive" Feedback:

"This was wonderfully written"

"I am so impressed with how well you did at this"

"Your essay had great flow"

"I like the way you made everything feel so vivid and real"

"Your story was fascinating"

"You made it really enjoyable to read"

C.2

Control Condition "Neutral" Feedback:

"The proper format was utilized"

"The instructions in the prompt were followed"

"The requirements of the story were met"

"I have no suggestions on the spelling or grammar"

"Adequate details were provided"

"The writing ability is fine"

Appendix D

D.1

Manipulation Condition Essay with Reciprocal Intimate Self-Disclosure (RISD):

When I was younger, my family liked to go to a big park near our Mosque once we were done at the Friday service. They said spending the time together all day on prayer day was our family's way of celebrating our Muslim faith. We would have a picnic there and walk and take pictures. One day the four of us, myself, my mom, my dad, and my little sister, were walking a path that went into a wooded area and we heard this weird noise coming from some bushes. It sounded like a fight between animals. I ran up there and first I saw a bunch of little kittens by a tree stump. My dad told me to leave them alone and I cried because I wanted to pet them. I had never had a pet by then and I was around 10 or so at the time. Anyway, we started searching for the mom and my mom found her and shielded her from me. She had been killed by some other animal a few feet from the kittens and that was what we heard. We must have saved the kittens from being a dog's lunch. My parents were not happy about this. I remember how annoyed they looked out there that day. Still, after my sister and I begged and begged we were able to get them to talk and agree to taking them all home and giving them away. We gave all of them away except for one. My mom got a couple of bowls for food and water for it after no one else would take it for free. We named him "Shibl" for lion's cub.

D.2

Control Condition Essay without Reciprocal Intimate Self-Disclosure (No RISD):

I was given a magical pair of shoes by a friend years ago. They told me that the shoes made the life of those who wore them greatly fortunate or unfortunate, depending upon the

strength of their faithful practice. Those who had tremendous faith would "achieve great things with the shoes", he said. Those of weak faith, however, "would be very unlucky in the shoes", he said. I considered myself a strong believer in Allah and my Muslim faith, so I accepted the shoes as a gift. They were slightly big on me but immediately shrunk to suit my feet when I stood up. I was a very selfish person currently. One day, I was greatly humbled. I broke my leg after tripping in the shoes. I was no longer able to play soccer, my favorite sport. As I was wearing the shoes that day, I almost threw them out in disgust. I did not, though. My leg healed, and while it did, I had to sit and become observant of those around me. My thoughts became more focused on them and their needs. I tried to adopt more selfless practices as I heard things from others that I allowed to teach me lessons. As I aged, I continued to become more and more giving and less selfish. I ended up falling in love with the person of my dreams and having lovely children. When I grew into my middle-aged years, I won the lottery and was able to travel the world helping many others who were less fortunate than me. I did all of this while wearing my favorite pair of shoes.

Appendix E

Intergroup Distinctiveness Motives Items- Christian Identifying Participant Excerpt

Q1

I want people to be aware of the differences between Christians and Muslims.

- o   Strongly disagree
- o   Disagree
- o   Somewhat disagree
- o   Neither agree nor disagree
- o   Somewhat agree
- o   Agree
- o   Strongly agree

Q2

It bothers me when people see Christianity and Islam as similar.

- o   Strongly disagree
- o   Disagree
- o   Somewhat disagree
- o   Neither agree nor disagree
- o   Somewhat agree
- o   Agree
- o   Strongly agree

Q3 (R)

I don't mind if people see Christians and Muslims as very similar *R

- o   Strongly disagree
- o   Disagree
- o   Somewhat disagree
- o   Neither agree nor disagree
- o   Somewhat agree
- o   Agree
- o   Strongly agree

Q4

I get embarrassed when people assume my religious beliefs are similar to Islam.

- o Strongly disagree
- o Disagree
- o Somewhat disagree
- o Neither agree nor disagree
- o Somewhat agree
- o Agree
- o Strongly agree

Q5 (R)

I would be pleased if someone assumed that my religious beliefs are similar to Islam.

- o Strongly disagree
- o Disagree
- o Somewhat disagree
- o Neither agree nor disagree
- o Somewhat agree
- o Agree
- o Strongly agree

Q6

There are important differences between Christianity and Islam.

- o Strongly disagree
- o Disagree
- o Somewhat disagree
- o Neither agree nor disagree
- o Somewhat agree
- o Agree
- o Strongly agree

Q7 (R)

There are very few real differences between Christianity and Islam. *R

- o Strongly disagree
- o Disagree
- o Somewhat disagree
- o Neither agree nor disagree
- o Somewhat agree
- o Agree
- o Strongly agree

Q8

I get embarrassed when people assume my religious beliefs are similar to Islam.

- o Strongly disagree
- o Disagree
- o Somewhat disagree
- o Neither agree nor disagree
- o Somewhat agree
- o Agree
- o Strongly agree

Q9

As far as I am concerned, Christianity and Islam have nothing to do with each other.
- o Strongly disagree
- o Disagree
- o Somewhat disagree
- o Neither agree nor disagree
- o Somewhat agree
- o Agree
- o Strongly agree

Appendix F

Attention Checks

What is the name of your essay exchange partner? Please guess if you do not remember.

Please describe the content of your exchange partner's essay in 1-2 brief statements.

Appendix G

Q1 To what extent do you believe this writing prompt was effective in testing OneDrive as a new tool for the campus library?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q2 To what extent do you believe you were capable of judging your partner's writing ability today?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q3 To what extent do you believe your partner was able to judge your writing ability today?

o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q4 To what extent do you believe OneDrive will serve as an effective tool for real-time constructive feedback to students in the future?

o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q5 To what extent do you feel were you understood by your partner today?

o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)

o   Completely (5)

Q6 To what extent do you feel you understood your partner today?

o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q7   How personally meaningful do you think the essay submitted by your partner was?

o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q8 How personally meaningful was the essay you shared today?

o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q9 How much do you believe you relate to your essay exchange partner?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q10 How private was the essay you shared today?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q11 To what extent do you believe your partner confided in you with the details disclosed in their essay?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q12 How emotionally connected do you feel towards your essay partner?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q13 How intimate did you think the essay of your partner was?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q14 To what extent do you believe you confided in your partner with the details disclosed in your essay?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q15 To what extent did you and your partner mutually share today?
o   Not at all (1)
o   Slightly (2)
o   Moderately (3)
o   Very much (4)
o   Completely (5)

Q16 To what extent did you try to imagine how you would feel if you were the person in the passage? Please rate anywhere from 1 (not at all) to 9 (very much)
o   Not at all (1)
o   2

o 3
o 4
o 5
o 6
o 7
o 8
o Very much (9)

Q17 To what extent did you try to imagine how the character written about was feeling as you read the passage? Please rate anywhere from 1 (not at all) to 9 (very much)

o Not at all (1)
o 2
o 3
o 4
o 5
o 6
o 7
o 8
o Very much (9)

Appendix H

Participants' suspicion ratings were obtained upon completion of the post-manipulation questionnaire items. Participants were asked to write in responses to four items. Item one was as follows: "In the first task you took part in, involving the OneDrive writing exercise and a subsequent survey, can you tell me what you think the purpose was?". Item two was as follows: "What do you believe was the purpose of the second task involving a pre-screener for an upcoming study?". Item three was as follows: "What, if any, relationship did the first task have with the second task?". Item four was as follows: "Did anything stand out to you as suspicious over the course of your involvement with these studies?"

Four research assistants were tasked with rating the potential for suspicion of each participant by analyzing their responses to each of the four items. Research assistants were prompted to do so in the following manner: "Please indicate how likely the participant was suspicious that they were being tested on prejudicial attitudes." With responses being recorded on a three-point scale, with 1 indicating *no suspicion*, 2 indicating *possible suspicion*, and 3 indicating *likely suspicion*.

An exploratory factor analysis was conducted to determine whether the research assistant ratings of suspicion data could be reduced to one composite suspicion score. The factor loadings revealed that each suspicion item was likely tapping into independent suspicion-related domains. As such, it was determined that research assistant suspicion ratings were distinctive for each suspicion item.

Average rater suspicion scores were obtained for each suspicion item after finding high agreement across three raters. This was determined after conducting reliability analyses and analyzing intra-class correlation (ICC) coefficients for the ratings of the four research assistants

for each item. Three of the four raters had consistently high agreement on all four suspicion items (α=.69 and above). The fourth rater, who evidenced low agreement for each item, was subsequently excluded from all exploratory analysis.

Subsequent dummy coding of suspicion items (1= high suspicion likelihood, 0 = low suspicion likelihood) was also conducted to determine the relationship between participant IDM attitude scores and research assistant ratings of high suspicion over low suspicion for each participant's unique write-in responses to suspicion items. The standard deviation was added to the mean for each composite suspicion rating and this score was used as a cut-off for "high" versus "low" dummy coding. It was found that unique participant write-in responses did not significantly relate to IDM scores.

Suspicion items were as follows:

Open-ended question one:

In the first task you took part in, involving the OneDrive writing exercise and a subsequent survey, can you tell me what you think the purpose was?

Research Assistant Rating Instructions:

Please indicate how likely the participant was suspicious that they were being tested on prejudicial attitudes.

1-Not suspicious

2- Possible suspicion

3- Likely Suspicion

Open-ended question two:

What do you believe was the purpose of the second task involving a pre-screener for an upcoming study?

Research Assistant Rating Instructions:

Please indicate how likely the participant was suspicious that the second survey assessed

their interaction with the confederate.

1-Not suspicious

2- Possible suspicion

3- Likely Suspicion

Open-ended question three:

What, if any, relationship did the first task have with the second task?

Research Assistant Rating Instructions:

Please indicate how likely the participant was suspicious that the two surveys were

testing related content.

1-Not suspicious

2- Possible suspicion

3- Likely Suspicion

Open-ended question four:

Did anything stand out to you as suspicious over the course of your involvement with

these studies?

Research Assistant Rating Instructions:

Please indicate how suspicious that the participant indicates they were during the study.

1-Not suspicious

2- Possible suspicion

3- Likely Suspicion

Appendix I

Full Scale: Intergroup Distinctiveness Motives Items

1. Please choose the religious group that you belong to, or that best describes you:
    Agnostic
    Atheist
    Buddhist
    Bahá'í
    Christian- Catholic
    Christian- Evangelical
    Christian- Protestant
    Christian- Non-Denominational
    Christian- Other
    Hindu
    Jewish
    Muslim
    Sikh
    Other
    Decline to answer* **

*If *Agnostic* or *Atheist* was chosen, the following 5 items were administered:

A2.) I don't like it when people mistake me for a Christian.
    Strongly disagree
    Disagree
    Somewhat disagree
    Neither agree nor disagree
    Somewhat agree
    Agree
    Strongly agree

A3.) I want people to be aware of the differences between religious and non-religious persons.
    Strongly disagree
    Disagree
    Somewhat disagree
    Neither agree nor disagree
    Somewhat agree
    Agree
    Strongly agree

A4.) It doesn't bother me when people mistake me for a religious person.
    Strongly disagree
    Disagree
    Somewhat disagree
    Neither agree nor disagree
    Somewhat agree

Agree
Strongly agree

A5.) I don't mind if people see religious and non-religious people as very similar.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

A6.) I get embarrassed when people assume, I am religious.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

** **If** *Christian- Catholic*, *Christian- Evangelical*, *Christian- Protestant*, *Christian- Non-Denominational*, *Christian- Other*, **or** *Muslim,* **the following 1 items were administered:**

B2.) I don't like it when people mistake me for an Atheist/Agnostic.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B3.) I want people to be aware of the differences between religious and non-religious persons.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B4.) It doesn't bother me when people mistake me for a non-religious person.
Strongly disagree
Disagree
Somewhat disagree

Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B5.) It doesn't bother me when people see religious and non-religious people as very similar.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B6.) I get embarrassed when people assume that I am non-religious.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B7.) I want people to be aware of the differences between Christians and Muslims.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B8.) It bothers me when people see Christianity and Islam as similar.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B9.) I don't mind if people see Christians and Muslims as very similar.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree

Somewhat agree
Agree
Strongly agree

B10.) I get embarrassed when people assume my religious beliefs are similar to Islam.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B11.) I would be pleased if someone assumed that my religious beliefs are similar to Islam.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B12.) There are important differences between Christianity and Islam.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

B13.) There are very few real differences between Christianity and Islam.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

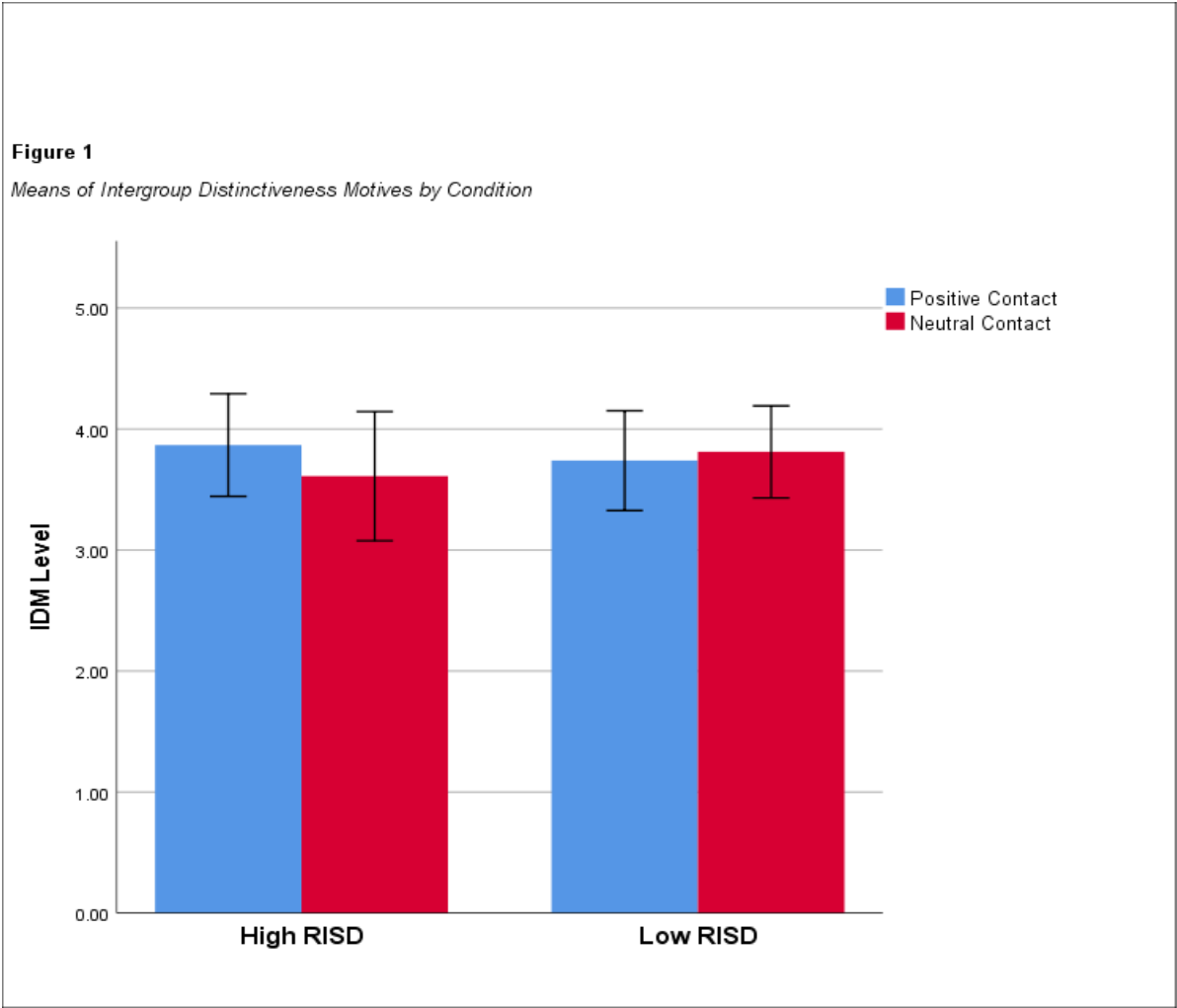B13.) I get embarrassed when people assume my religious beliefs are similar to Islam.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree

Agree
Strongly agree

B14.) As far as I am concerned, Christianity and Islam have nothing to do with each other.
Strongly disagree
Disagree
Somewhat disagree
Neither agree nor disagree
Somewhat agree
Agree
Strongly agree

Figures

Figure 1

Means of Intergroup Distinctiveness Motives by Condition

Note: Error Bars: 95% CI