Summer 7-20-2020

MEASURING THE EFFECTIVENESS OF NOVEL INTERVENTIONS OF PREJUDICE REDUCTION

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A Thesis Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Degree of Master of Science

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Pittsburg, Kansas

July, 2020

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An Abstract of the Thesis by
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Muslims around the world are facing more discrimination and prejudice than ever given modern world politics. It has been found that American citizens with negative stereotypes about Muslims are more likely to support prolonged wars in the Middle East, decreased spending on foreign aid to the Middle East, and more likely to display aggression toward other American Muslims (Sides & Gross, 2013). Some methods of prejudice reduction have been explored and include facial feedback and imagined intergroup contact. This research combines both of these methods to evaluate the effectiveness of facial feedback and imagined intergroup contact using four randomized groups: no engagement in facial feedback or imagined contact, engagement in facial feedback but no imagined contact, engagement in imagined contact but no facial feedback, and engagement in facial feedback and imagined contact. Three dependent variables were used to measure the effect of treatment on prejudice towards Muslims: a graphical thermometer (*Encyclopedia of Survey Research Methods*, 2008), the Bogardus Social Distance Scale (Bogardus, 1926), and a fake postcard study (Schoenrade, Liu, Eldridge, Ramsey, & Duric, 2016). When the data was analyzed using a 2 (facial feedback: absent or present) x 2 (imagined contact: absent or present) MANOVA, no results were statistically significant. Data collection was suspended early due to SARS-Cov-2, thus limiting the number of participants and potentially contributing to the insignificant findings.

TABLE OF CONTENTS

LIST OF TABLES

Chapter I

Introduction

Today, Muslims in the United States face more than five times as much discrimination compared to before 9/11 (Dunwoody & McFarland, 2018). While it is possible there are many reasons for this increase, at the forefront are stereotypes and prejudice. Stereotypes are cognitive ingroup biases that result in individuals having negative thoughts towards outgroup members (Fiske & Taylor, 2017). Prejudice is an affective intergroup bias that results in individuals having negative emotions and feelings towards outgroup members (Fiske & Taylor, 2017). Though stereotypes can inform prejudices, as cognitions can inform emotions, prejudices are better predictors of intergroup behavior and discrimination (Talaska, Fiske, & Chaiken, 2008; Tropp & Pettigrew, 2005).

While much of the current research regarding stereotypes and prejudices focuses on uncovering how they are formed, what their contents are, and the consequences of accessing them, less research has been focused on developing methods to reduce the use of stereotypes and prejudices, though it has been found that this is a multistep process (Devine, Plant, Amodio, Harmon-Jones, & Vance, 2002). The purpose of this research is to determine the effectiveness of two novel interventions to reduce the use of prejudice toward Muslim individuals.

Religious Prejudice

Prejudice can exist based on innumerable factors including gender, age, race, ethnicity, nationality, religion, and sexual orientation. One class of prejudice of importance in contemporary society is religious prejudice. A 2010 study in the United Kingdom found that the perceived religion of a target individual was a better predictor of that individual facing discrimination than perceived race or ethnicity (King & Ahmad, 2010). Prejudice regarding individuals practicing Islam, commonly referred to as Muslims, has only increased since 9/11 in the United States (Dunwoody & McFarland, 2018).

Muslims are typically stereotyped by Americans to be violent, untrustworthy, and terrorists, making them appear to be a threat, especially when judged by White or Christian Americans (King & Ahmad, 2010; Mortiz, Lasfar, Reininger, & Ohls, 2018; Nadal, Dvidoff, Davis, Wong, Marshall, & McKenzie, 2015; Sides & Gross, 2013). Numerous factors contribute to this phenomenon. First, many Americans report that most of their information about Muslims and the Islamic faith is received through television, which can easily reflect the biases of any producer or telecommunications corporation or promote inaccurate or incomplete information in a misleading manner (Jackson, 2010). In fact, most mass media in the United States portrays Muslims as violent terrorists while suggesting that this is an accurate portrayal, though it is not (Jackson, 2010). A recent study found that 60% of voters in the United States believed that Muslim Syrian refugees should not be accepted into the country, even though over half of these refugees are children, who arguably pose no significant threat to the safety and security of the United States (Brown, Ali, Stone, & Jewell, 2017).

Second, most non-Muslim individuals do not differentiate between individuals practicing the Islamic faith and those of a Middle Eastern nationality, meaning that many people cognitively structure the terms 'Muslim' and 'Arab' or 'Middle Eastern' to be synonymous, and that many Muslims are misattributed as also being of a Middle Eastern nationality (Dunwoody & McFarland, 2018). This, despite the fact that only about twenty percent of Muslims world-wide are Arabs, and many Arabs are not Muslim (Pew Research Center, 2011). Even individuals who were born in the Untied States who practice Islam and might otherwise be considered White are presumed to be Middle Eastern and as such, are labeled not 'real' Americans by White and/or Christian Americans, especially if the individual can be visually identified as Muslim, such as by wearing a hijab (Dunwoody & McFarland, 2018; King & Ahmad, 2010; Nadal et al., 2015). This means that non-Muslim Americans put more people in the category of "Muslim/Arab/Middle Eastern" than the actual number of Muslims, Arabs, or Middle Easterners in the country. The assumption that individuals who are Muslims are also Middle Eastern carries many negative implications given the numerous extended conflicts in the Middle East.

Third, stereotypes of all demographics are developed by approximately 5 years of age that are comparable to those of adults, including religious and anti-Muslim stereotypes (Brown et al., 2017; Qian, Heyman, Quinn, Fu, & Lee, 2019). While many American adults quickly adjusted their stereotypes about Muslims to be more negative quickly after 9/11, children who were too young to comprehend 9/11, or were not even born yet, typically form these negative biases against Muslims by elementary school age. Importantly, children are very impressionable and much of their social thought and

behaviors are learned through family members or other care takers, suggesting that these stereotypes are not based on firsthand accounts or information (Qian et al., 2019). This suggests that interventions to block the formation of negative stereotypes need to be implemented before elementary school, and that later interventions to reduce stereotyping need to in some way provide counter-stereotypical information, preferably through primary information or interaction.

Unfortunately, these anti-Muslim stereotypes can have real-world consequences. Individuals who hold anti-Muslim stereotypes are more likely to be prejudiced as well and to support increased spending on Middle Eastern conflicts, including the killing of civilians, and decreased spending on foreign aid (Sides & Gross, 2013). Fortunately, research indicates that anti-Muslim stereotypes and prejudices can be reduced through methods such as evaluative conditioning (French, Franz, Phelan, & Blaine, 2013), and emphasizing similarities (Mortiz et al., 2018), though individuals might not be motivated to engage in these stereotype reduction methods without motivation (Devine et al., 2002).

Intergroup Contact

One naturally occurring method of both stereotype and prejudice reduction is intergroup contact. Intergroup contact occurs when individuals interact with members of other social groups and learn meaningful information about each other (Allport, 1954). Individuals who experience more intergroup contact in their day-to-day lives have less stereotypes of out-groups, and individuals who experienced intergroup contact in research settings have less prejudice after contact (Allen & Friedman, 2016; Crisp & Turner, 2009; Korol, Fietzer, & Ponterotto, 2018; Meleady, Seger, & Vermue, 2017; Meleady, Crisp, Dhont, Hopthrow, & Turner, 2019; Schlueter, Ullrich, Glenz, &

Schmidt, 2018; Vezzali et al., 2017). This effect is theorized to occur because intergroup contact improves attitudes toward out-groups, presents counter-stereotypical information, and reduces feelings of threat and anxiety (Allen & Friedman, 2016; Meleady et al., 2019; Seger, Banerji, Park, Smith, & Mackie, 2017).

There are, however, limitations to intergroup contact in the natural setting. First, rural or segregated areas may not provide ample opportunities for meaningful contact to occur, and individuals may choose to live in communities with fewer minorities precisely because the communities are more homogenous (Crisp & Turner, 2009; Schlueter et al., 2018; Vezzali et al., 2017). Second, even where many groups live in the same area, individuals might choose to interact only within their group (Crisp & Turner, 2009; Dixon et al., 2019). Novel methods of intergroup contact, such as imagined contact, circumvent these limitations; thus, it is possible for individuals to benefit from intergroup contact without having experienced direct intergroup contact.

Imagined Contact

Imagined contact involves individuals mentally simulating intergroup contact in a positive manner (Crist & Turner, 2009). Imagined contact has been found to be most successful when the imagined contact is vivid and the individual's eyes are closed (Bilewicz & Kogan, 2014). Neuropsychological studies have even found that imagined intergroup contact operates on the same neurological basis as actual intergroup contact (Crisp & Turner, 2009). Research has demonstrated that imagined contact increases humanization (Prati & Loughnan, 2018) and trust of out-groups (LaBouff et al., 2016; Meleady & Seger, 2017), positive attitudes towards out-groups (Bilewicz & Kogan, 2014; Crisp & Turner, 2009; Prati & Loughnan, 2018), and willingness to engage with

out-groups (LaBouff et al., 2016; Prati & Loughnan, 2018; Vezzali et al., 2017). Imagined contact also demonstrates a secondary transfer effect to non-targeted out-groups, meaning that if one imagines positive contact with African Americans they are more likely to have more positive attitudes towards African Americans and other racial out-groups such as Asian Americans or Mexican Americans (Bowman & Griffin, 2012; Harwood, Paolini, Joyce, Rubin, & Arroyo, 2011; Pettigrew, 2009; Schmid, Hewstone, & Tausch, 2014; Vezzali & Giovanni, 2012; Vezzali et al., 2018).

Facial Feedback

Another possible method of prejudice reduction is through facial feedback. Embodied cognition theories, based on the James-Lange theory of emotion, suggest that individuals recognize the emotions of others by mimicking their facial expression, which sends feedback to the brain decoding the expression to determine the displayed emotion (Hyniewska & Sato, 2015; Neal & Chartrand, 2011). Based on this, the facial feedback hypothesis theorizes that manipulating facial expressions alters affect (Strack, Martin, & Stepper, 1988). Most facial feedback research manipulates participants' facial expressions by having participants hold something in their mouth, move certain facial features in specific patters, or other methods that do not produce a demand effect by asking participants to reproduce a specific emotion (Davis, Senghas, & Oschsner, 2009). Even though participants do not recognize the facial expression they are imitating they often report feeling a higher intensity of that correlated emotion compared to others (Marzoli et al., 2013). Recent research has found that various facial expressions predict certain emotions: lowering eyebrows to mimic a frown increases measures of sadness (Davis et al., 2009; Lewis, 2012; Miguel & Caramanico, 2016), raising eyebrows to

resemble surprise makes facts seem more interesting (Lewis, 2012; Miguel & Caramanico, 2016), holding the upper lip closer to the nose as if in disgust causes odors to be rated as more unpleasant (Lewis, 2012; Miguel & Caramanico, 2016), holding a pen between the teeth with the lips pulled away to resemble a smile increases happiness (Bilewicz & Kogan, 2014; Davis et al., 2009; Kraft & Pressman, 2012; Lobmaier & Fischer, 2015; Marsh, Rhoads, & Ryan, 2018), and involuntarily frowning and squinting of the eyes while facing the sun induces anger (Marzoli et al., 2013). Statistical analyses of the facial feedback effect have found it to be strong (Strack et al., 1988), weak (Miguel & Caramanico, 2016; Coles, Larsen, & Lench, 2019; Noah, Schul, & Mayo, 2018), and even nonexistent (Wagenmakers et al., 2016). For the most part, meta-analyses seem to be pointing toward the idea that the effects of facial feedback are weak under most circumstances, but nonexistent if participants are video recorded (Miguel & Caramanico, 2016; Coles et al., 2019; Noah et al., 2018; Wagenmakers et al., 2016).

Present Study

The present study has been designed to test the effectiveness of two novel methods of prejudice reduction: facial feedback and imagined contact. Importantly, both interventions can also be performed without the participant knowing they are engaging in a method of prejudice reduction. Facial feedback was chosen because research indicates that smiling increases happiness (Bilewicz & Kogan, 2014; Davis et al., 2009; Kraft & Pressman, 2012; Lobmaier & Fischer, 2015; Marsh et al., 2018), thereby creating a positive affect which might be attributed to a paired out-group (Meleady et al., 2019; Seger et al., 2017), which might mediate the reduction of prejudice. Imagined contact was chosen because research has demonstrated its effectiveness at reducing prejudice by

generating positive attitudes towards out-groups (Bilewicz & Kogan, 2014; Crisp & Turner, 2009; Prati & Loughnan, 2018). One previous study by Bilewicz and Kogan (2014) involved participants engaging in imagined contact and facial feedback though smiling at the same time. They found that Polish participants who engaged in both methods at the same time developed more positive attitudes attributed toward Romanians (Bilewicz & Kogan, 2014). The aim of this research is to test this finding within the United States to see what combinations of imagined contact and facial feedback best reduce prejudice towards Muslims.

Participants will be randomly assigned to one of four conditions based on a 2 (facial feedback: absent or present) x 2 (imagined contact: absent or present) between-subjects design. Participants engaging in facial feedback will be asked to hold a pencil between their teeth for two minutes to mimic a smile, while those not engaging in facial feedback will not be asked to do this. Participants engaging in imagined contact will be asked to imagine meeting and interacting with a Muslim for two minutes, focusing on the positive aspects of the interaction, while those not engaging in imagined contact will be asked to imagine a sunset for two minutes. A 2 by 2 MANOVA design will be implemented to measure the effects of facial feedback and imagined contact.

The author hypothesizes one significant main effect and one significant interaction. First, it is predicted that imagined contact will significantly reduce anti-Muslim prejudice. Second, facial feedback will also reduce anti-Muslim prejudice, but not to a significant extent. Third, combining imagined contact and facial feedback will produce the largest reduction in anti-Muslim prejudice.

Chapter II

Method

Participants

Participants were recruited from students enrolled in general psychology classes at Pittsburg State University. They were offered extra credit in exchange for their participation. Participants were tested individually in a quiet room. Data collection was forced to cease after six weeks due to SARS-Cov-2. In total, 77 participants completed this study with the average age of participants being 20.5 years old. The sample consisted of 58% males and 42% females; 82% white/Caucasian, 8% Black/African America, 2% Native American, 1% Asian American, and 7% other; 90% not Hispanic/Latino and 10% Hispanic/Latino; 86% from the United States; 16% not religious, 77% Christian, 3% Agnostic, and 4% who preferred not to say.

Materials

Pencils. Each participant assigned to one of the facial feedback groups will receive a new #2 pencil. After cleaning the pencil, participants were instructed to hold the pencil between their teeth without touching their lips to the pencil, which is a common method to get participants to mimic a smile (Strack et al., 1988).

Alcohol wipe. Participants will be provided with an alcohol wipe to clean their #2 pencil before placing the pencil in their mouth.

Crayons. Participants will shade in the graphical feelings thermometer using crayons.

Demographics questionnaire. After the informed consent, and before beginning the experiment, all participants will be instructed to fill out a demographics questionnaire. The questionnaire will ask about the participant's age, gender, race, ethnicity, nationality, and religion, and each demographic included the option of "prefer not to answer" (Appendix A).

Graphical thermometer. To assess the amount of positive attitudes towards Muslims, participants will shade in the graphical thermometer with a red crayon on a piece of paper to reflect the amount of positive emotions they feel towards Muslims on a scale from 0 (no positive emotions) to 100 (only positive emotions) (*Encyclopedia of Survey Research Methods*, 2008) (Appendix B).

Bogardus social distance scale. In order to assess participants' comfort with Muslims in different social situations, participants completed the Bogardus social distance scale (Bogardus, 1926). The Bogardus social distance scale asks participants how comfortable they would be with a Muslim individual in seven situations (as a close relative by marriage, close personal friend, neighbor on the same street, co-worker, citizen in the same country, non-citizen visitor to one's country, and would exclude entry into my country) (Appendix C). The Bogardus social distance scale is a cumulative scale, meaning that agreement with one item assumes agreement with all preceding items. If a participant indicates that they are comfortable with a Muslim being a neighbor on the same street, the scale assumes that the same participant is comfortable with a Muslim as a co-worker, citizen in the same country, and non-citizen visitor to one's country, but

uncomfortable with a Muslim being a close personal friend or close relative by marriage. Scores were assigned on a scale from 1 to 7 based on how comfortable participants indicated they were with Muslims. Participants received a score of 1 if they were comfortable with a Muslim individual being a close relative by marriage, and a score of 7 if they would exclude a Muslim from entering their country. Participants who demonstrated conflicting comfort between categories (e.g. comfortable with a Muslim being their neighbor, but not their co-worker) were assigned the highest score before they began to demonstrate conflicting comfort (e. g. 5 for citizen in the same country).

Fake post card study. To assess if participants were willing to interact with a Muslim in a low-stakes setting, participants were informed of a second, study where they would exchange postcards with an individual from a different region of the world, writing and receiving one post card per month for up to six months (Schoenrade, Liu, Eldridge, Ramsey, & Duric, 2016). A questionnaire was then filled out indicating if the participant was willing to participate in this study, and if so, for how many months (Appendix D). The questionnaire stated that the postcards and postage would be provided to the participant at no cost.

Procedure

Participants were greeted by the researcher and given an informed consent form, stating that the purpose of the research was to measure attitudes towards different groups, and that they would receive extra credit if they continued with the research. After giving their consent participants were asked to fill out a short demographics questionnaire. Participants were then given the instructions for the facial feedback and imagined contact group they were randomly assigned, and informed that they were randomly assigned to

the group considering the outgroup of Muslims. Individuals in each of the two facial feedback conditions were asked to hold a pencil with their teeth without touching their lips to the pencil during the imagination segment. Participants in each of the two imagined contact conditions were prompted to "imagine meeting and interacting with a Muslim individual" for two minutes and to reflect on the positivity of the interaction, while participants in each of the two non-imagined contact conditions were prompted to "imagine watching the sunset on the beach" for two minutes. Participants were then asked to shade in the graphical feelings thermometer using the provided crayons according to their positive feelings towards Muslims, and then complete the Bogardus social distance scale. Participants were then informed of a fake post card study in which they were eligible to participate. After indicating if they were willing to participate in the post card study, participants were debriefed and informed that the true purpose of the study was to test the effectiveness of novel methods of prejudice reduction, and that there was no post card study.

Chapter III

Results

Tables 1 and 2 review the descriptive statistics of all groups and dependent variables. For the graphical thermometer, group 3 expressed the most positive feelings towards Muslims (*M* = 82.11, *SD* = 23.11), group 4 expressed the least amount of positive feelings (*M* = 71.18, *SD* = 29.98), with groups 1 (*M* = 75.71, *SD* = 26.57) and 2 (*M* = 74.52, *SD* = 20.98) in the middle. For the Bogardus Social Distance Scale, group 3 expressed the most comfort with Muslims (*M* = 2.53, *SD* = 2.32), group 1 expressed the least comfort with Muslims (*M* = 3.10, *SD* = 2.45), and groups 2 (*M* = 3.00, *SD* = 2.36), and 4 (*M* = 2.71, *SD* = 2.31) in the middle. For the post card study, group 4 was most likely to participate (12 of 17 participants), group 3 was least likely to participate (7 of 19 participants), with groups 1 and 2 (both 10 of 21 participants) in the middle. For the number of months participants agreed to participate in the post card study, group 3 was willing to participate the longest (*M* = 2.47, *SD* = 2.34), group 4 was willing to participate the shortest (*M* = 0.47, *SD* – 0.87), with groups 1 (*M* = 2.05, *SD* =2.33) and 2 (*M* = 1.90, *SD* = 2.21) in the middle. This paints an interesting picture wherein group 3, which experienced imagined contact but not facial feedback, displayed the least amount of prejudice in three of four dependent variables (graphical thermometer, Bogardus Social Distance Scale, and months participating in the postcard study), as well as the

most prejudice in their willingness to participate or not in the post card study. This suggests that the participants in group 3 who were willing to participate in the post card study were also willing to participate longer than subjects in the other three groups.

In order to test the hypothesis that imagined contact, and potentially facial feedback, would reduce prejudice towards Muslims a 2 (facial feedback: absent, present) by 2 (imagined contact: absent, present) between subjects MANOVA was conducted to compare the results of the four groups, the results of which can be found in Table 3. Participants who experienced the facial feedback, $F(2, 73) = 0.62$, $p = .54$; Wilk's $\Lambda = 0.98$, or imagined contact, $F(2, 73) = 0.33$, $p = .72$; Wilk's $\Lambda = 0.99$, treatments were not significantly different from participants who did not. Additionally, the interaction between facial feedback and imagined contact was not significant.

Chapter IV

Discussion

The purpose of this study was to determine what effect, if any, facial feedback and imagined contact have on prejudice towards Muslims within the United States. To this end, participants were divided into four groups based on whether or not they would participate in facial feedback and/or imagined contact. It was hypothesized that participants that participated in imagined contact would display significantly less prejudice towards Muslims than those who did not participate in imagined contact. Additionally, it was hypothesized that individuals who participated in facial feedback would display less prejudice towards Muslims that those who did not participate in facial feedback, but this would not be statistically significant.

Neither imagined contact nor the facial feedback manipulations seemed to affect prejudice towards or attitudes of Muslims. One potential explanation for this is the small sample size of the study. This research had to be discontinued halfway through data collection due to SARS-Cov-2. Had data collection continued or been later resumed the sample size would be much larger and the results might prove to be significant. The data collection goal for this study was to run 120 participants with 30 participants in each group, however, only 78 participants took part in this study before data collection had to

be discontinued. Each group had a relatively small sample size, and small sample sizes can result in skewed results. Future research studies should collect larger samples.

Another possible explanation for these insignificant results might come from the time participants spent engaged in the facial feedback and imagined contact conditions. It is possible that two minutes was not enough time for the facial feedback and/or imagined contact experiences to influence participant's views on Muslims. Requiring participants to engage in these conditions for say five minutes might produce a larger and more measurable effect.

Finally, it is possible that facial feedback and/or imagined contact have no effect of participants views of outgroup members. Previous research supports the idea that facial feedback results are often small or otherwise insignificant (Miguel & Caramanico, 2016; Coles et al., 2019; Noah et al., 2018; Wagenmakers et al., 2016). Previous research, however, does not support the finding that the results of imagined contact are small or insignificant (Bilewics & Kogan, 2014; Crisp & Turner, 2009; LaBouff et al., 2016; Meleady & Seger, 2017; Prati & Loughnan, 2018; Vezzali et al., 2017). Ultimately, future research is still needed to determine how much of an effect facial feedback, but especially imagined contact, have on participants views of outgroup members.

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APPENDIX

Appendix A

Demographics Questionnaire

What is your age, in years? _____

Please circle the choice that best describes your gender:

Man Woman Other Prefer not to say

Please circle all choices that best describe your race:

White/Caucasian Black/African American Native American Alaskan Native

Asian American Other Prefer not to say

Please circle the choice that best describes your ethnicity:

Hispanic/Latino Not Hispanic/Latino

What is your nationality: _____

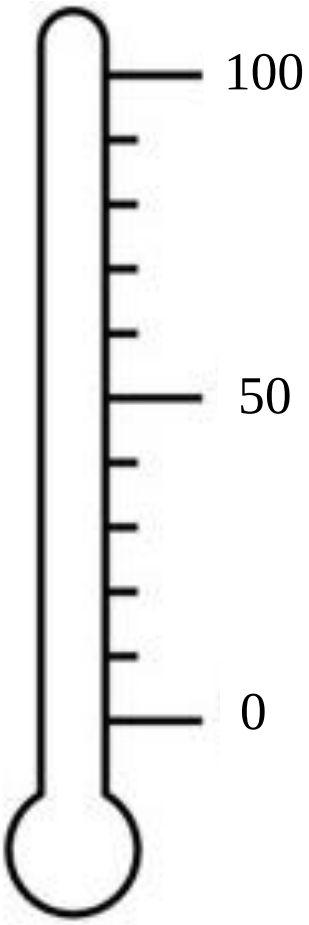
Please circle the choice that best describes your religious beliefs/practices:

Christian Jewish Muslim Buddhist Hindu Other Prefer not to say

Appendix B

Graphical Thermometer

Please shade in the thermometer using the provided crayons to represent the amount of positive attitudes you have towards the group you were assigned, where 0 means no positive feelings and 100 means only positive feelings.



Appendix C

Bogardus Social Distance Scale

Please give your first reaction, yes or no, whether you personally would feel comfortable having a member of the group you were assigned:

_____ As a close relative by marriage (i.e. the legal spouse of a close relative)

_____ As my close, personal friend

_____ As neighbors on the same street

_____ As co-workers in the same occupation

_____ As citizens in my country

_____ As non-citizen visitors in my country

_____ I would exclude from entry into my country

Appendix D

Additional Research Participation Opportunity

Thank you for participating in this study; your time and effort is greatly appreciated. Participants of the study you have just completed are eligible to participate in a follow-up study. This study involves exchanging one postcard each month with a person of the group you were assigned. The postcards and postage will be provided to all participants at no cost.

Would you be willing to participate in this follow-up post card study? Circle your answer

Yes No

If you are willing to participate in this follow-up post card study, for how many months are you willing to exchange post cards with a person of the group you were assigned? The postcards and postage will be provided to all participants at no cost, and it is expected that you will write and receive one post card each month. Circle your answer.

1 2 3 4 5 6

Table 1

Descriptive Statistics for Graphical Thermometer and Bogardus Social Distance Scale

Group	Facial Feedback	Imagined Contact	N	Graphical Thermometer		Bogardus Social Distance Scale	
				Mean	Standard Deviation	Mean	Standard Deviation
1	N	N	21	75.71	26.57	3.10	2.45
2	Y	N	21	74.52	20.98	3.00	2.36
3	N	Y	19	82.11	23.11	2.53	2.32
4	Y	Y	17	71.18	29.98	2.71	2.31

Note. For the facial feedback and imagined contact columns, "N" refers to no and "Y refers to yes. Higher numbers in the Graphical Thermometer columns indicate more positive attitudes towards Muslims, and higher numbers in the Bogardus Social Distance Scale columns indicate less comfort with Muslims in social situations.

Table 2

Descriptive Statistics for the Post Card Study

Group	Facial Feedback	Imagined Contact	Post Card Study		Post Card Study Months	
			N	Y	Mean	Standard Deviation
1	N	N	10	11	2.05	2.33
2	Y	N	10	11	1.90	2.21
3	N	Y	7	12	2.47	2.34
4	Y	Y	12	5	0.47	0.87

Note. For the facial feedback, imagined contact, and post card study columns, "N" refers to no and "Y" refers to yes. Higher numbers in the post card study months columns refer to participant willingness to communicate with a Muslim via postcards for longer durations of time. Participants that declined to participate in the post card study automatically received a 0 for the number of months they would communicate with a Muslim via postcard.

Table 3

Wilk's Λ MANOVA Results

Independent Variable	Wilk's Λ Value	F Value	Numerator Degrees of Freedom	Denominator Degrees of Freedom	Pr > F
Facial Feedback	0.98	0.62	2	73	0.54
Imagined Contact	0.99	0.33	2	73	0.72
Facial Feedback * Imagined Contact	0.99	0.36	2	73	0.70