THE STEREOTYPING AND INDIVIDUATION PROCESS MODEL:

DISCRIMINATION AGAINST ARABS AND MUSLIMS

by

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ABSTRACT OF THE THESIS

The Stereotyping and Individuation Process Model:

Discrimination against Arabs and Muslims

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This research tests a new model of the role of stereotypes and individuating information.

The Stereotyping and Individuation Process Model (SIP) predicts that individuals will

use stereotypes versus individuating information based on relevance to the judgment.

Three steps of the model were tested by examining discrimination against Arabs and

Muslims in an airport security setting. A 2 (Target Ethnicity) x 3 (Target Religion) x 2

(Participant Ethnicity) Mixed Model was employed where Target Ethnicity and Target

Religion are within-subjects factors. Participants were asked to review 36 passengers in

an airport and recommend suspicious passengers for further questioning. Results show

preliminary support for Steps 1 through 3 of the model. Anti-Arab and Anti-Muslim

prejudice predicted recommendation for questioning. Additionally, a Black Sheep Effect

was found where White Muslims were discriminated against more than any other group.

An In-Group Bias effect was found where White participants favored White targets and

Non-White participants favored Arab targets.

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The Stereotyping and Individuation Process Model: Discrimination against Arabs and

Muslims

>A person is lost and enters a gas station looking for directions. There are three
>
>clerks working – one is white, one is black, and the other is Arab. Who do you
>
>think most Americans/you would ask for assistance…What if they were
>
>teenagers, middle-aged, or elderly? (Zogby International, 2007)

For the majority of Americans, regardless of race, the Arab clerk is always chosen the

least (Zogby International, 2007). In the United States alone, the events of September 11th

led to the Patriot Act and tighter airport security with the consequence that people of

Middle Eastern background have been subjected to increasing scrutiny. With evidence of

anti-Muslim and anti-Arab sentiment in the United States, it is important to address the

rising prejudice through developing a deeper understanding of when discrimination is

apparent and under what conditions it is applied.

Arab and Muslim Prejudice

Americans reported having several negative stereotypes about Arabs, which may

feed into feelings of prejudice. In 1992, Americans believed Arab-Americans to be

untrustworthy, uncivilized, radical Muslims, and either terrorists or supporters of

terrorists (Johnson, 1992). They are also perceived to be threats to American culture and

values in addition to being personal threats to individuals (Hitlan, Carillo, Zarate, &

Aikman, 2007; Oswald, 2005).

When compared to other minority groups, Arabs are disliked more than African-

Americans, Asian-Americans, and Hispanic-Americans (Bushman & Bonacci, 2004;

Persson & Musher-Eizenman, 2005). Furthermore, individuals high in anti-Arab

prejudice are less likely to interact with Arabs and are higher in ethnocentrism, social dominance orientation, right-wing authoritarianism, anti-Semitism, conservative ideology orientation, and religious fundamentalism (Echebarria-Echabe & Fernandez-Guede, 2006, 2007; Johnson, 1992; Oswald, 2005). Similarly, Americans typically prefer Christianity to Islam, explicitly and implicitly. Those who have these preferences also score high in right-wing authoritarianism and religious fundamentalism (Rowatt, Franklin, & Cotton, 2005).

The Arab/Muslim Confusion

Currently there are approximately 3.5 million Arab-Americans who live in the United States. Of those in the USA, only 24% self-identify as Muslim, while 63% identify as Christian. Additionally, approximately only 12% of Muslims worldwide are Arabs (Arab-American Institute, 2009). This indicates that there is a clear distinction between Arab ethnicity and Muslim religion. Nonetheless, it appears as though many Americans confuse the two by considering most (if not all) Arabs to be Muslims and vice versa. Preliminary evidence of this exists in an unpublished study in which negative attitudes about Islam were highly correlated with a statement that all Arabs support Osama Bin Laden (Johnson, 2003).

Social scientists are also culpable for this conflation within their research studies. In one experiment, where researchers devised an "anti-Arab" attitude scale, 16 of 42 items were specifically about Islam and 4 items used Arab and Muslim interchangeably (Echebarria-Echabe & Fernandez-Guede, 2006). The researchers also thought they were using a behavioral measure that targeted anti-Arab attitudes but it actually targeted Anti-Muslim attitudes.

Arab and Muslim Discrimination

In the six years prior to September 11th, anti-Islamic hate crimes accounted for approximately 1.98% of all total hate crimes against religion. In the following seven years after the attack the percentage of crimes against Muslims rose drastically to 13.32% of all crimes based on religion (Federal Bureau of Investigations). In the nine weeks following the attacks, 700 violent incidents were targeted against Arabs, or people perceived to be Arabs (Albert, et al., 2008).

Prejudice against Arabs predicts discriminatory acts against them (Oswald, 2005). Individuals high in prejudice against Arabs were less likely to engage in anonymous helping of Arabs (Bushman & Bonacci, 2004). Experimenters used the "lost email technique" whereby a misplaced email was sent to participants. The email contained an award letter for a scholarship to an Arab or non-Arab student. The student needed to accept the scholarship within 48 hours or lose the award. Participants high in anti-Arab prejudice were significantly less likely to return the email to the Arab student. A second study asked participants if they were interested in supporting a measure to promote European values and a culture against Islamization (Echebarria-Echabe & Fernandez-Guede, 2007). If interested, participants mailed a signed form to the experimenters. Anti-Arab prejudice was found to be a significant predictor of endorsement of a culture against Islamization.

Arab-, Muslim-, and White-American Experiences of Discrimination

Following September 11th, Muslim-Americans reported higher levels of discrimination, such as being stared at or being the target of offensive jokes (Sheridan, 2006). In another study, 53% of Arab-Americans reported being treated unfairly because

of their Arab descent, 47% reported getting in a fight because of something racist done to them, and 46% reported being called a racist name within the last year (Moradi & Hasan, 2004). Many believed the related discrimination was related to their high visibility as a Muslim (Sheridan, 2006). These experiences of prejudice and discrimination had definite psychological effects on some. In a study of Muslims-Americans, one-third were classified as having depressive symptoms, increased psychological distress, and lower self-esteem as a result of discrimination (Moradi & Hasan, 2004). Not surprisingly, White Americans are also affected by reports of discrimination against Arabs and Muslims. Those who highly identify with being an American feel vicarious shame about extreme negative examples of anti-Arab prejudice (Johns, Schmader, & Lickel, 2005). The acts of discrimination are interpreted as threats to their social identity.

Stereotyping and Individuating Information

When judging individuals, research on stereotypes shows that people make judgments based on stereotypes, i.e., categorical group information, and individuating information, i.e., information unique to the individual. The extent to which perceivers rely on stereotypes versus individuating information is hotly debated in different theories such as Fiske's Continuum Model and Kunda's Parallel Constraint Model.

The Stereotyping and Individuation Process Model

This research tests a new model of the role of stereotypes and individuating information. The Stereotyping and Individuation Process Model (SIP) predicts that individuals will use stereotypes versus individuating information based on relevance to the judgment (Figure 1). In the first step of the model, perceivers identify whether there is individuating information available. If there is no individuating information, the perceiver

will solely rely on categorical stereotypes to make judgments about the individual. In Step 2 of the model, where individuating information is present, perceivers identify whether the individuating information is narrowly relevant to the judgment. If the individuating information is narrowly relevant to the judgment, the perceiver will rely on individuating information.

Narrow relevance refers to the diagnosticity of the individuating information being provided. An example of individuating information narrowly relevant to terrorism would be that the person is a known Al-Qaeda member. The SIP model predicts that a person's religion or ethnicity, information that is not narrowly relevant to the judgment, would hardly matter – American Al Qaeda members will be seen as terroristic as Arab Al Qaeda members.

If the individuating information is not narrowly relevant to the judgment, the perceiver will proceed to Step 3. At this stage, the perceiver assesses if the totality of the individuating information implies a trait that is relevant to the judgment. (e.g., the person is an anti-American radical). If so, then the perceiver will rely on both stereotypes and individuating information. The SIP model predicts that people with individuating information that implies radical Anti-Americanism, regardless of religion and ethnicity, will be seen as more terroristic. Nonetheless, Arab and Muslim Anti-American radicals will be seen as even more terroristic than White Christian radicals.

If not – if the info is neither narrowly relevant nor implies a relevant trait – then the perceiver will rely on the stereotype.

Overview of the Present Study

The main objective of this study is to assess Steps 1 through 3 of the SIP Model through an examination of bias and discrimination against Arabs and Muslims. The setting of the study will be a mock airport security situation. Discrimination against Arab Americans and Muslims are reported to be high in this setting and was selected based on this criterion (Albert, et al., 2008). Participants will be provided with only categorical group information. Therefore, the answer to the Step 1 question (Is there individuating information?) is yes. However, the information in the baggage contents and passport is not narrowly relevant to the judgment (Step 2: no). Furthermore, it will not imply a personality trait relevant to the judgment (Step 3: no). Therefore participants will use stereotype information to judge the targets. Participants are expected to rely on two dominating stereotypes about Arabs and Muslims: Arabs and Muslims are the same, and that Arabs and Muslims are terrorists.

The study design is 2 (Target Ethnicity: Arab American, White American) x 3 (Target Religious Affiliation: Christian, Muslim, Ambiguous). Arab and Muslim targets are hypothesized to be recommended for questioning (i.e., discriminated against) more than White American and Christian targets. In addition, because main effects for both Arab ethnicity and Muslim religion are expected, I also predict that the greatest discrimination will displayed against Arab-Americans who are Muslim.

Method

Participants

 Participants were 161 (99 female, 2 who did not report gender) Rutgers University students who completed the experiment as extra-credit in their Social Psychology course. Participants who wished to receive extra-credit completed the experiment at the end of one of their lectures. 52% identified as white, 12% Asian, 10% Black, 10% Hispanic, 4% Mixed, 2% Middle Eastern, 1% Native American, and 6% who indicated another ethnicity (6 participants did not report their ethnicity). 50% identified themselves as Christian, 14% Agnostic, 9% Jewish, 5% Atheist, 4% Hindu, 4% Muslim, and 9% who indicated another religious affiliation (8 participants did not indicate their religious affiliation).

Measures

 Feeling Thermometer. Participants reported their attitudes toward Arabs and Muslims using two feeling thermometers on scales ranging from 1 (*very cold or unfavorable*) to 100 (*very warm or favorable*) (Appendix A). Additional feeling thermometer items gauged participant's feelings towards Hispanics, Americans, and Jews.

 Anti-Arab Scale. In addition, Anti-Arab attitudes were measured using Bushman and Bonacci's 11-item measure of anti-Arab prejudice (Appendix B). Items were scored on a Likert-type scale of 1 (*strongly disagree*) to 7 (*strongly agree*). Sample items included "Even for Arab-Americans who live in America, their first loyalty is to their home country rather than to America" and "If I knew I had been assigned to live in a

dorm room with an Arab American, I would ask to change rooms." This shows high internal reliability ($\alpha = .93$) and successfully predicted discrimination.

Anti-Muslim Scale. In order to directly compare Anti-Arab and Anti-Muslim attitudes, the Bushman and Bonacci scale was modified for Muslim attitudes (Appendix C). All items from the original Anti-Arab attitudes scale were used. Sample items include "Even for Muslim-Americans who live in America, their first loyalty is to their home country rather than to America" and "If I knew I had been assigned to live in a dorm room with a Muslim-American, I would ask to change rooms."

American Attitudes Scale. The Bushman and Bonacci scale was modified again to evaluate attitudes towards Americans (Appendix D). 4 questions were revised to assess attitudes towards Americans and items that were not applicable were not included. For example, a sample item included "One general fault of Americans is their over-aggressiveness." An example of a question that was removed would be "If there are too many Americans ("Arabs" in the original) in America, our country will be less safe."

Arab-Muslim Equivalence. The 10-item Arab-Muslim Equivalence Scale was a scale developed for this study to assess individual's beliefs that Arabs are Muslim and Muslims are Arab (Appendix E). Participants were asked to identify the percentage of people in a given ethnicity that belong to a specific religious group (e.g. "What percentage of Muslims are Arab") and the percentage of people within a specific religion that are a given ethnicity (e.g. "What percentage of Catholics are Hispanic?"). These items were asked in the context of the United States as well as world-wide. Participants rated each item in percentage points from 0 to 100%.

Procedure

Participants were approached at the end of their Social Psychology lecture and asked to read and sign a consent form that gave a general description of the study. In order to increase participant's willingness to answer honestly, a cover-story was presented. In the cover-story, participants were told that this was a joint project between Rutgers and the Department of Homeland Security (DHS). DHS had identified that some people are naturally good at determining suspicious activity and potential terrorist behavior. The purpose of the experiment was to see if any of the current participants were one of these people and what traits might have lead them to them excel.

Participants were then asked to role-play an airport security officer whose job was to screen passengers, and recommend suspicious passengers for questioning. In order to make the task salient and important to participants, instructions also emphasized that the safety of the flight, its passengers, and the airport were his or her sole responsibility. Stimuli were presented on a projector through Microsoft PowerPoint. Participants were presented with a series of mock passports and a written list of carry-on baggage contents of passengers boarding the flight. Each stimulus was presented for 10 seconds then participants were asked make his or her recommendation for questioning on paper.

The experiment used a 2 (Target Ethnicity: Arab-American, European-American) x 3 (Target Religious Affiliation: Muslim, Christian, Ambiguous) entirely within subjects design. A total of 36 targets were presented to participants with 6 targets in each Target Ethnicity/ Religious Affiliation cell. Arab photos were collected from the Photo Pre-Test and White photos were collected from the Productive Aging Lab Database (Milnear & Park, 2004). Additionally, photos of actual terrorists were included as targets.

The primary dependent measure was the recommendation for questioning in each of the six ethnic and religious cue combinations. Ethnicity was indicated through prototypical features (e.g., skin color) as well as within the passport (a modification was made to the passport where ethnicity was listed) (Figure 2).

Each target had six items in his baggage such as a toothbrush, umbrella, or iPod. In order to manipulate religion, a cue to the passenger's religious affiliation was embedded in the written description of the carry-on baggage. A description that depicted a Muslim had a Koran in his baggage; and a Christian had a Bible. Participants were asked to determine whom they would recommend for further questioning though a single item question, "Do you recommend this passenger for further questioning?" Participants were asked to check yes or no on their answer sheet.

In order to ensure that attention was paid to the ethnic and religious cues, participants were subjected to nine random, multiple-choice, recall questions throughout the airport security task (Appendix G). These questions were asked immediately after the recommendation for questioning. Participants were warned that there will be recall questions throughout this part of the experiment but they did not know what the questions were or when they would occur. A sample question that functioned as a manipulation check was "What was the previous passenger's ethnicity?" Innocuous questions, such as "Was the previous passenger carrying a blanket?" were also included to avoid participant suspicion of the true purpose of the study.

Following the suspicious activity identification task, participants were given measures on anti-Arab and anti-Muslim attitudes, feeling thermometers, Arab-Muslim

equivalence, and demographics (Appendix H). Participants were thanked, debriefed, and given credit for their participation.

Photo Pre-Test. Photographs were pre-tested to ensure that most individuals can correctly identify the photos as Arab. Photos of male Arab, Indian, Asian, and Hispanic descent were collected over the internet from various sources such as Facebook, dating websites, and Google Image Search. Additionally, 11 photos of known Arab terrorists were included. Ethnicity was determined by identifying two clues that would determine ethnicity within the context of the photograph or website. For example, a photo that would be identified as Arab would be collected from an Arab dating website and had an Arab sounding name. Photographs were edited using Adobe Photoshop to mimic passport photos. Images were cropped to include only the shoulders and head and backgrounds were edited to a plain cream color.

In the pre-test, participants were presented with 116 photos, one at a time, in Microsoft PowerPoint and asked to determine the individual's ethnicity as Arab, Asian, Hispanic, or Indian. Seven images were removed from the analysis because the individual in the photo was recognized by the participants. Analysis was restricted to Arab photos where the number of correct responses for each photo (i.e. identifying an Arab photo as Arab) was calculated. The number of correct responses for each photo was converted to the percentage of participants (out of a total of 28 participants) to correctly identify the photo. If 50% or more correctly identified the ethnicity, the photo was selected for the main experiment. A total of 9 Arab and 5 Arab Terrorist photos were identified correctly by 50% or more of the participants. In order to achieve six targets per cell, which would require 15 Arab and 3 Arab Terrorist photos, an additional 6 photos that were correctly

identified less than 50% of the time were also included. To ensure that participants were

aware that these targets are Arab, and not of another ethnicity, experimental passports

were modified to include the target's ethnicity.

Results

Preliminary Analyses

Descriptive statistics and correlations of the main dependent variables and scales are in Table 1 and 2, respectively. Prejudice measures had adequate scale reliability. The Americans Attitudes scale had $\alpha = .80$, Arab Prejudice reliability's $\alpha = .93$, and Muslim Prejudice's $\alpha = .94$.

Order effects. In order to determine if the order of prejudice scales and feeling thermometers had an effect on participant's recommendation for questioning, a One-Way ANOVA was conducted. There was a significant effect of Order on Arab Feeling Thermometer Scores, $F(1, 156) = 9.28$, $p < .005$, $\eta^1 = .24$. Arab Feeling Thermometer scores were more positive when prejudice scales were presented first (58.55) than when feeling thermometers were first (48.05). Additionally, there was a significant effect of Order on Arab Prejudice Scores, $F(1, 157) = 5.14$, $p < .05$, $\eta = .18$. When feeling thermometers were presented first, participants demonstrated greater dislike for Arabs on the Arab Prejudice scale (.38) than when prejudice measures were presented first (.32).

Demographics. Further analyses were conducted to determine whether any factors within the main analysis were moderated by demographics. A series of 2 (Target Ethnicity: White, Arab) x 3 (Target Religion: Christian, Ambiguous, Muslim) repeated measures factorial ANOVA were conducted with one demographic variable (Participant Gender, Political Affiliation, or Participant Religion) included as a blocking factor (all *Fs* < 2.20, all *p* > .05). Another ANOVA did find evidence for demographic moderation (Participant Ethnicity: White, Non-White) (Table 3). Therefore the main analysis was revised to a 2 (Target Ethnicity) x 3 (Target Religion) x 2 (Participant Ethnicity) mixed-

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[1] Eta (η) is a measure of effect size that is calculated by taking the square root of (SS_{effect}/SS_{total}).

model ANOVA. Target Ethnicity and Target Religion are fully-crossed within subjects measures, while Participant Ethnicity is a between subjects measure.

Arab and Muslim Participants. In order to assess whether Arab and Muslim participants affected the results of the 2 (Target Ethnicity: White, Arab) x 3 (Target Religion: Christian, Ambiguous, Muslim) x 2 (Participant Ethnicity: White, Non-White) mixed-model ANOVA, these participants were removed (Table 4). The main pattern of results was highly similar to those in the main analyses including all participants. Therefore all participants were included in the analyses described below.

SIP Model – Step 1

Non-normality of the dependent variables. Upon examining the dependent variable for violations of ANOVA assumptions, Kolmogorov-Smirnov and Shapiro-Wilk tests indicated that the dependent variable (recommendation for questioning in each of the 2 (Target Ethnicity) x 3 (Target Religion) cells) had a non-normal distribution, all $D(155) > .16$, all $p < .001$. The dependent variable was positively skewed. Most participants only recommended 0, 1, or 2 passengers for questioning in each of the cells of the factorial design. Thus, the data are not only non-normal, they are not particularly continuous.

Although ANOVA is known to be robust to violations of assumptions, several steps were taken to address these data issues. The main analysis of a 2 (Target Ethnicity) x 3 (Target Religion) x 2 (Participant Ethnicity) was performed three separate times: as an ANOVA with the raw unadjusted dependent variable, as an ANOVA on the raw unadjusted dependent variable with outliers removed, and as an ANOVA on the full set of dependent variables after a log transformation.

ANOVA. In Step 3 of the SIP Model, participants assess whether the totality of the

individuating information implies a trait relevant to the judgment. Since the information

does not imply a trait relevant to the judgment, it is hypothesized that participants will

rely on stereotypes to make a judgment of the target. To test the hypothesis of Step 3, a 2

(Target Ethnicity: White, Arab) x 3 (Target Religion: Christian, Ambiguous, Muslim) x 2

(Participant Ethnicity: White, Non-White) mixed-model ANOVA was performed (Table

5). Target ethnicity and target religion are within-subjects factors while participant

ethnicity is the between subjects factor. This tested whether target ethnicity (2) and target

religion (3) influenced recommendation for questioning while blocking for participant

ethnicity (2). Mauchly's test indicated that the assumption of sphericity had been violated

for the religion factor ($\chi = 22.56$, $p < 0.001$). Therefore degrees of freedom were

corrected using Greenhouse-Geisser's conservative adjustments for violations of

sphericity (epsilon = 0.88).[2]

There was a significant main effect of target religion on the number of targets

recommended for questioning, $F(1.76, 268.91) = 31.07$, $p < .001$, $\eta = .22$ (Figure 3).

Pairwise comparisons, with a Bonferroni correction for multiple comparisons, revealed

significant differences in the number of Muslim targets (1.78) and Christian targets (1.26)

as well as Muslim targets and Ambiguous targets (1.11) recommended for questioning,

all ts > 2.14, all ps < .001 (Table 6).

There was a significant interaction between the target's ethnicity and the target's

religion, $F(1.98, 302.75) = 25.59$, $p < 001$, $\eta = .18$ (Figure 4). The number of Arab and

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[2] Greenhouse-Geisser corrections are known to be an overly conservative correction for epsilon values greater than .75. Significant results using this correction, therefore, are particularly credible. With these particular data, there was no difference in the pattern of significant versus nonsignificant results when using the Greenhouse Geisser versus the less conservative Huynh-Feldt correction.

White targets recommended for questioning differed by the target's religion. To break down the interaction, a series of simple effects one-way ANOVAs were performed on the questioning data. The first ANOVA assessed the effect of target religion on the number of White targets recommended for questioning. There were significant differences between all levels of religion for White targets, $F(2, 312) = 1.24$, $p < .001$, $\eta = .53$. Mean differences from post-hoc analyses, with a Bonferroni correction for multiple comparisons, indicated that White targets with an ambiguous religious affiliation were recommended for questioning less than were White Christian targets, $t(156) = 4.18$, $p < .001$. White targets with an ambiguous religious affiliation were recommended for questioning less than White Muslim targets, $t(156) = -9.75$, $p < .001$. White Muslim targets are recommended for questioning more than White Christian targets, $t(156) = 6.89$, $p < .001$ (Table 7).

In the second ANOVA, the number of Arab targets recommended for questioning was examined. This analysis tested for differences within the number of Arab Christian, Arab Ambiguous, and Arab Muslim targets recommended for questioning where Target Religion was the within-subjects factor. There was no significant main effect for Target Religion on the number of Arab Targets recommended for questioning, $F(1.09, 312) = 1.24$, $p > .05$, $\eta = .09$. Thus, people were about equally likely to question Arab Christian, Arab Muslim, and Arab religion ambiguous targets.

Additionally in the main analysis, there was a significant interaction between the target's ethnicity and the participant's ethnicity, $F(1, 153) = 8.10$, $p = 005$, $\eta = .09$ (Figure 5). To break down the interaction, a simple effects analysis was conducted. The number of Arab and White targets recommended for questioning differed as a function of

the participant's ethnicity (White, Non-White). A MANOVA analysis was conducted on the dependent variables with participant ethnicity included as the between subjects factor. When examining White participants only, Arab targets (1.49) were recommended for questioning more than White targets (1.23), $F(3, 15) = 8.72$, $p < .001$. When examining only Non-White participants, White targets (1.52) were recommended for questioning more than Arab targets (1.31), $F(3, 15) = 7.31$, $p < .001$. This analysis indicates a clear in-group bias.

  Outliers Removed. To test the hypothesis that that non-normality of the dependent variables may be affecting the analysis, all participants that recommended five or more targets for questioning in any of the 2 (Target Ethnicity) x 3 (Target Religion) cells were removed from the analysis. A common rule of thumb for removing an outlier is a z-score greater than 3. By calculating the threshold for outliers in each cell within the 2 x 3 design, I found that outliers would occur at: 4.5 for White Christian targets, 4.09 for White Ambiguous targets, 6.3 for White Muslim targets, 5.12 for Arab Christian targets, 4.78 for Arab Ambiguous targets, and 5.44 for Arab Muslim targets. In order to have a standard threshold for outliers, the average of all thresholds was taken as 5.04 targets recommended for questioning in each cell.

  The same 2 (Target Ethnicity) x 3 (Target Religion) x 3 (Participant Ethnicity) mixed model ANOVA was conducted to assess the impact of target religion and ethnicity on White and Non-White participants after removing the outliers (Table 8). Results showed a main effect of target religion on the number of targets recommended for questioning, $F(1.86, 264.38) = 28.98$, $p < .001$. There was an interaction of target ethnicity and target religion on the number of targets recommended for questioning,

$F(1.99, 282.77) = 24.22$, $p < .001$. This indicates that the number of Arab and White

targets recommended for questioning differed by the target's religion. There was a

significant interaction effect between the target's ethnicity and the participant's ethnicity,

$F(1, 142) = 7.58$, $p < 01$. This indicates that the number of Arab and White targets

recommended for questioning differed as a function of the participant's ethnicity (White,

Non-White). When compared to directly to the same ANOVA, where the data is

unadjusted, the pattern of main effects and interactions are identical (main effect of

religion, interaction of target religion and target ethnicity, interaction of target religion

and participant ethnicity).

   Log Transformation. A log transformation was used to normalize distributions for

all dependent variables. Because distributions are positively skewed, there are

participants who did not recommend anyone for questioning in that 2 x 3 cell (indicated

by a 0 value). Since the log cannot be taken from a 0 value, 100 was added to all

dependent variables before the log transformation. The same 2 (Target Ethnicity) x 3

(Target Religion) x 3 (Participant Ethnicity) mixed-model ANOVA was used to test

whether target religion and ethnicity influenced these log-transformed recommendations

for questioning while blocking for participant ethnicity (Table 9).

   There was a significant main effect of target religion on the number of targets

recommended for questioning, $F(1.76, 269.72) = 31.17$, $p < .001$. There was a significant

interaction effect between the target's ethnicity and the target's religion, $F(1.98, 302.95)$

$= 25.73$, $p < .001$. This indicates that the number of Arab and White targets

recommended for questioning differed by the target's religion. There was a significant

interaction effect between the target's ethnicity and the participant's ethnicity, $F(1, 153)$

= 8.15, $p < .005$. This indicates that the number of Arab and White targets recommended for questioning differed as a function of the participant's ethnicity (White, Non-White). When compared to the same ANOVA, where the data is unadjusted, the same pattern of main effects and interactions are identical. In this case, both analyses demonstrate a main effect for religion, an interaction of target ethnicity and target religion, and an interaction of target religion and participant ethnicity.

Conclusion. Based on the varieties of analyses conducted, all results are highly similar. Therefore, although an assumption of ANOVA was violated, the analysis is robust enough to prevent incorrect interpretations of the data. The patterns that emerged in each analysis were the same no matter what correction was made to the data. A summary of main and interaction effects for each of the analyses can be viewed in Table 10.

Arab and Muslim Prejudice

To assess the strength of the relationship between Arab and Muslim prejudice, I correlated these two scores with each other and with the American Attitudes scale. As predicted, American Prejudice was not correlated with either Arab or Muslim Prejudice (p > .05) while Arab and Muslim prejudice were highly correlated, r = .87, $p < .001$. To test the hypothesis that people generally view Arabs and Muslims to be the same group, a second series of correlations were conducted. Responses to Arab-Muslim Equivalence Questions (What percentage of Arabs are Muslim? What percentage of Muslims are Arab?) were highly correlated when participants made estimations for both US and World populations. When estimating US populations, participant's responses were correlated at r = .55, $p < .001$. When estimating World populations, participant's

responses were correlated at r = .53, *p* < .001. Since the strength of these two correlations are roughly equal, I can conclude that it is likely that individuals view the makeup of Arab and Muslim populations in the US and the World to be the similar. By reviewing the means and standard deviations for each question, I can conclude that participants believe that the majority of Arabs are Muslim and the majority of Muslims are Arab (Table 11). Therefore, participants are likely to believe that Arabs and Muslims are mostly the same.

Concurrently, to examine the role of prejudice in detention, regardless of beliefs about Arabs and Muslims being the same group, Arab prejudice was correlated with the number of Arab Muslim, r = .29, *p* < .001, and ambiguous Arab targets, r = .24, *p* < .001, recommended for questioning. Muslim prejudice was correlated with the number of Arab Muslim, r = .41, *p* < .001, and ambiguous Arab targets, r = .25, *p* < .005. Taken together, these correlations provide evidence that Arab and Muslim prejudice is predictive of recommendation for questioning in Arab and Muslim targets.

Arab Discrimination

Arab discrimination was assessed through several simple correlations. To assess Arab discrimination, I hypothesized that Arab prejudice will be correlated with the number of passengers recommended for questioning. Individuals high in Arab prejudice was correlated with the total number of passengers recommended for questioning, r = .29, *p* < .001. This indicates that individuals high in prejudice recommend more people for questioning overall.

Second, Arab prejudice was correlated with the number of Arabs recommended for questioning, r = .39, *p* < .001. Since it is hypothesized that individuals consider Arab

and Muslims to be the same group, Arab prejudice was correlated with the number of

Muslims questioned, r = .29, $p < .001$. The strength of these correlations are similar.

Lastly, Arab prejudice was correlated with the number of targets recommended for

questioning that are neither Arab nor Muslim, r = -.04, $p > .05$. When compared to the

other correlations, this analysis indicates that there is a differential pattern unique to

Arabs and Muslims and that individuals high in Arab prejudice are not more willing to

detail overall.

Muslim Discrimination

Muslim discrimination was assessed in the same way as Arab discrimination by

ways of several simple correlations. To test if individuals high in prejudice recommend

more people for questioning overall, first Muslim prejudice was correlated with the total

number of passengers recommended for questioning, r = .31, $p < .001$. Second, Muslim

prejudice was correlated with the number of Muslims recommended for questioning, r =

.37, $p < .001$. Since it was hypothesized that individuals consider Arab and Muslims to be

the same group, Muslim prejudice was correlated with the number of Arabs questioned, r

= .41, $p < .001$. The strength of these correlations are similar, therefore individuals view

Arabs and Muslims to be the similar groups. Lastly, Muslim prejudice was correlated

with the number of targets recommended for questioning that are neither Arab nor

Muslim, r = -.03, $p > .05$. When compared to the other correlations, this analysis indicates

that there is a differential pattern unique to Arabs and Muslims and individuals high in

Muslim prejudice are not more willing to detail overall.

General Discussion

This research explored how categorical information (ethnicity, religion) was used to make specific judgments about a target through anti-Arab and anti-Muslim prejudice and discrimination. This study provided preliminary evidence for Steps 1, 2, and 3 of the SIP Model. Results showed that individuals used religious cues to make judgments about targets. One unique aspect of this research is that it examined whether individuals consider Arabs as different from Muslims. Based on the results of the experiment, it can be concluded that most participants viewed the two groups as similar.

This study also assessed whether prejudice is related to discrimination against Arabs and Muslims. There was a main effect for target religion, indicating that discrimination against Arabs and Muslims is likely due to being Muslim. Furthermore, since most participants viewed Arabs and Muslims to be similar, both groups (Arabs and Muslims) are likely to be discriminated against.

In-group Bias, Out-group Derogation. An interesting finding of this study was the interaction of Target Religion and Participant Ethnicity. This finding demonstrates a clear in-group favoritism and out-group bias. White participants favored White targets while derogating Arab targets. Non-white participants derogated White targets while favoring Arab targets.

Black Sheep Effect. As reported in the results, White Muslim targets were recommended for questioning more than any other group including Arab Muslim targets. This inclination to derogate White Muslim targets may be due to a Black Sheep Effect (Marques, Yzerbyt, & Leyens, 1988). The Black Sheep effect suggests that people are often more hostile to deviant in-group members than to deviant out-group members. For

example, a black sheep may be someone who is considered a traitor to his or her country, someone who violates the values or norms of one's in-group, or a leader who will not address the desires of his or her constituents. In this case, the deviant group member would be White Muslims. One might think that a White person *chooses* Islam while an Arab may have been born into Islam and have less of a choice. If the perceiver is prejudiced against Muslims, then someone who chooses to be a Muslim may be disliked more than someone who was born into the religion. Future research should seek to examine why White Muslims are fundamentally disliked.

Additionally, this White Muslim black sheep effect may be influenced by a general dislike of overt religiosity in White targets. This would explain why White Christians were recommended for questioning significantly more than White targets with an ambiguous religious affiliation. In an area of the country that is strongly liberal, overt religiosity, such as carrying a Bible or Koran, may be inherently "weird" or suspicious. Future research will explore this hypothesis by having participants rate targets on religiosity, and similarities to themselves and on perceived mental stability.

Limitations. One limitation was that this study was a simulation and there were only two ethnic groups. Two ethnic groups were chosen in order to make a clear distinction between Arab targets and non-Arab targets. Rice and Mullen (2003) provided support for this decision because they found that individuals are not accurate at identifying minority groups. Only White and Arab targets were used because these two groups should be distinguishable for every participant. Another limitation was that all targets are male. This study did not assess male and female targets as would occur in a naturalistic airport security setting.

Conclusion

This research used a novel, real-world simulation to directly address how Arab and Muslim people increasingly have become targets of prejudice since September 11th. This research was innovative in that it investigated more than one category, ethnicity and religion, whereas most prejudice research investigates only one. It helps us to understand how people use stereotypic information, religious and ethnic cues, to increase discriminatory behavior. People are more likely to recommend Muslims for questioning, particularly White Muslims, because of the Black Sheep Effect. People see Muslims and Arabs as more similar than they really are. Lastly, Arab and Muslim prejudice is a clear predictor of recommendation for questioning.

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Table 1

Descriptive Statistics for College Participants (N = 160)

	N	Mean	Std. Deviation	Hypothetical		Actual	
				Minimum	Maximum	Minimum	Maximum
Total Number of White Christians Recommended for Questioning	159	1.21	1.11	0	6	0	6
Total Number of Ambiguous Whites Recommended for Questioning	159	.82	1.09	0	6	0	6
Total Number of White Muslims Recommended for Questioning	159	2.04	1.42	0	6	0	6
Total Number of Arab Christians Recommended for Questioning	159	1.31	1.27	0	6	0	5
Total Number of Ambiguous Arabs Recommended for Questioning	159	1.39	1.13	0	6	0	6
Total Number of Arab Muslims Recommended for Questioning	159	1.48	1.32	0	6	0	5
Feeling Thermometer: American	158	77.32	19.27	0	100	30	100
Feeling Thermometer: Arab	157	53.37	22.23	0	100	0	100
Feeling Thermometer: Muslim	157	53.50	22.70	0	100	0	100
American Prejudice Score (low=liking, high=dislike)	160	.54	.19	0	1	.14	1
Arab Prejudice Score (low=liking, high=dislike)	159	.35	.17	0	1	.14	.92
Muslim Prejudice Score (low=liking, high=dislike)	160	.35	.18	0	1	.14	.92
US: What percentage of Hispanic people are Catholic?	158	70.15	19.47	0	100	10	100
US: What percentage of Muslims are Arab?	153	65.48	21.72	0	100	0	100
US: What percentage of Catholics are Hispanic?	159	35.69	19.48	0	100	5	90
US: What percentage of Arabs are Muslim?	155	67.04	21.13	0	100	0	100

US: What percentage of White people are Christian?	159	64.17	17.27	0	100	10	99
World: What percentage of Hispanic people are Catholic?	158	68.35	20.64	0	100	5	100
World: What percentage of Muslims are Arab?	153	66.69	20.60	0	100	0	100
World: What percentage of Catholics are Hispanic?	156	37.54	20.71	0	100	3	90
World: What percentage of Arabs are Muslim?	154	69.61	21.53	0	100	0	100
World: What percentage of White people are Christian?	157	63.29	17.81	0	100	10	99

Hypothetical minimum and maximum values indicate the range of possible choices for each item. Actual minimum and maximum values indicate the range of participant responses.

Table 2

Correlations Among Variables

	1	2	3	4	5	6	7	8	9	10
1. TotWhiteChr										
2. TotWhiteAm	.48**									
3. TotWhiteMus	.28**	.24**								
4. TotArabChr	.11	.07	.16*							
5. TotArabAm	.18*	.10	.31**	.29**						
6. TotArabMus	.11	.02	.44**	.17*	.36**					
7. FTAmerican	.01	.04	.02	.18*	.10	.18*				
8. FTArab	.01	.18*	-.12	-.26**	-.17*	-.20*	.05			
9. FTMuslim	.05	.14	-.14	-.17*	-.18*	-.32**	.13	.80**		
10. AmerPrej	.05	.10	.10	.10	.08	.02	-.06	.06	.05	
11. ArabPrej	.02	-.08	.21**	.29**	.24**	.29**	.19*	-.53**	-.45**	.14
12. MuslimPrej	-.02	-.04	.22**	.19*	.25**	.41**	.09	-.41**	-.58**	.11
13. AMEUSHisp	.08	.13	.12	.00	.17*	-.05	.04	.05	.00	.11
14. AMEUSMus	.00	.06	.11	.06	.10	.15	.17*	.00	-.12	-.07
15. AMEUSCath	.07	.15	-.01	.00	-.01	-.08	.00	.09	.12	-.04
16. AMEUSArab	-.08	.02	.10	.04	.14	.08	.19*	.02	.09	-.04
17. AMEUSWhite	-.08	.02	.11	.07	.15	.09	.15	-.06	-.06	.14
18. AMEWHisp	.00	.07	.00	-.03	.11	-.07	.02	.11	.02	.04
19. AMEWMus	-.03	.00	.13	.08	.14	.18*	.24**	-.02	-.13	-.07
20. AMEWCath	.01	.04	-.02	.00	-.01	-.08	.09	.09	.12	-.03
21. AMEWArab	-.07	-.10	.11	.02	.10	.08	.204*	.02	.05	.02
22. AMEWWhite	-.07	.10	.22**	.06	.18*	.04	.21**	.02	.03	.17*

	11	12	13	14	15	16	17	18	19	20	21
12. MuslimPrej	.87**										
13. AMEUSHisp	-.06	-.03									
14. AMEUSMus	.00	.07	.22**								
15. AMEUSCath	.03	-.04	.30**	.06							
16. AMEUSArab	.14	.08	.15	.55**	.03						
17. AMEUSWhite	.17*	.12	.23**	.12	.15	.08					
18. AMEWHisp	-.20*	-.13	.69**	.09	.23**	.13	.18*				
19. AMEWMus	.07	.14	.03	.78**	-.02	.48**	.09	.08			
20. AMEWCath	.00	-.04	.20*	-.08	.71**	-.04	.05	.31**	.01		
21. AMEWArab	.08	.07	.05	.44**	-.05	.80**	.09	.15	.53**	.05	
22. AMEWWhite	.10	.04	.19*	.10	.11	.14	.70**	.23**	.20*	.13	.22**

*. p< .05 (2-tailed).

**. p< .01 (2-tailed).

Correlations Variable Key

1. TotWhiteChr	Total number of White Christian targets recommended for questioning
2. TotWhiteAm	Total number of White Ambiguous targets recommended for questioning
3. TotWhiteMus	Total number of White Muslim targets recommended for questioning
4. TotArabChr	Total number of Arab Christian targets recommended for questioning
5. TotArabAm	Total number of Arab Ambiguous targets recommended for questioning
6. TotArabMus	Total number of Arab Muslim targets recommended for questioning
7. FTAmerican	Feeling Thermometer: Americans
8. FTArab	Feeling Thermometer: Arabs
9. FTMuslim	Feeling Thermometer: Muslims
10. AmerPrej	American Attitudes Score
11. ArabPrej	Arab Prejudice Score
12. MuslimPrej	Muslim Prejudice Score
13. AMEUSHisp	In the United States, What percentage of Hispanic people are Catholic?
14. AMEUSMus	In the United States, What percentage of Muslims are Arab?
15. AMEUSCath	In the United States, What percentage of Catholics are Hispanic?

16. AMEUSArab   In the United States, What percentage of Arabs are Muslim?

17. AMEUSWhite   In the United States, What percentage of White people are Christian?

18. AMEWHisp   In the World, What percentage of Hispanic people are Catholic?

19. AMEWMus   In the World, What percentage of Muslims are Arab?

20. AMEWCath   In the World, What percentage of Catholics are Hispanic?

21. AMEWArab   In the World, What percentage of Arabs are Muslim?

22. AMEWWhite   In the World, What percentage of White people are Christian?

Table 3

All Participants

Mean Number of Targets Recommended for Questioning

Targets	White Participants		Non White Participants	
	Mean	SD	Mean	SD
White Christian	1.06	1.01	1.36	1.20
White Ambiguous	.54	.75	1.13	1.30
White Muslim	2.04	1.40	2.04	1.46
Arab Christian	1.45	1.30	1.17	1.23
Arab Ambiguous	1.43	1.08	1.34	1.18
Arab Muslim	1.53	1.19	1.43	1.45

N = 159 for all results

Table 4

Arab and Muslim Participants Removed

Analysis of Variance on Recommendation for Questioning

Source	Sum of Squares	*df*	MS	*F*	η
Target Ethnicity (E)	1.62	1	1.62	1.34	.04
E X P	6.83	1	6.83	5.66*	.08
Error (E)	155.58	129	1.21		
Target Religion (R)	61.71	1.76	35.10	25.06***	.23
R X P	2.81	1.76	1.60	1.14	.05
Error (R)	317.64	226.77	1.40		
Participant Ethnicity (P)	.07	1	.07	.03	.01
Error (P)	345.24	129	2.68		
E X R	57.84	1.97	29.33	31.78***	.22
E X R X P	.32	1.97	.16	.18	.02
Error (E*R)	234.77	254.42	.92		

** *p* < .01

*** *p* < .001

Table 5

All Participants

Analysis of Variance on Recommendation for Questioning

Source	Sum of Squares	*df*	MS	*F*	η
Target Ethnicity (E)	.13	1	.13	.09	.01
E X P	12.40	1	12.40	8.10**	.09
Error (E)	234.33	153	1.53		
Target Religion (R)	75.29	1.76	42.84	31.07***	.22
R X P	3.06	1.76	1.74	1.26	.04
Error (R)	370.75	268.91	1.38		
Participant Ethnicity (P)	.74	1	.74	.63	.02
Error (P)	493.12	153	3.22		
E X R	46.87	1.98	23.69	25.59***	.18
E X R X P	4.52	1.98	2.28	2.47	.05
Error (E*R)	280.22	302.75	.93		

** *p* < .01

*** *p* < .001

Table 6

All Participants

Bonferroni Comparison for Target Religion

Comparisons	Mean Difference in Targets Recommended for Questioning	Std. Error	95% CI	
			Lower Bound	Upper Bound
Christian vs. Ambiguous	.15	.07	-.02	.32
Christian vs. Muslim	-.52***	.10	-.76	-.27
Ambiguous vs. Muslim	-0.67***	.09	-.89	-.44

*** $p < .001$

Table 7

All Participants

Bonferroni Comparison for White Target Religion

Comparisons	Mean Difference in Targets Recommended for Questioning	Std. Error	95% CI	
			Lower Bound	Upper Bound
Christian vs. Ambiguous	.37***	.09	.16	.59
Christian vs. Muslim	-.85***	.12	-.59	-.16
Ambiguous vs. Muslim	-1.23***	.13	-1.53	-.93

*** *p* < .001

Table 8

Outliers Removed

Analysis of Variance on Recommendation for Questioning

Source	Sum of Squares	df	MS	F	η
Target Ethnicity (E)	1.00	1	1.00	.80	.03
E X P	9.42	1	9.42	7.58**	.09
Error (E)	176.49	142	1.24		
Target Religion (R)	50.95	1.86	27.37	28.98***	.21
R X P	2.02	1.86	1.09	1.15	.04
Error (R)	249.63	264.38	.94		
Participant Ethnicity (P)	1.01	1	1.01	.40	.03
Error (P)	358.19	142	2.52		
E X R	40.35	1.99	20.26	24.22***	.19
E X R X P	2.95	1.99	1.48	1.77	.05
Error (E*R)	236.57	282.77	.84		

**p < .01

***p < 0.001

Table 9

Log Base 10 Transformation

Analysis of Variance on Recommendation for Questioning

Source	Sum of Squares[3]	df	MS[4]	F	η
Target Ethnicity (E)	2.68E-06	1	2.68E-06	.10	.01
E X P	2.27E-04	1	2.27E-04	8.15**	.09
Error (E)	.004	153	2.78E-05		
Target Religion (R)	.001	1.76	.001	31.17***	.19
R X P	5.61E-05	1.76	3.18E-05	1.28	.05
Error (R)	.007	269.72	2.49E-05		
Participant Ethnicity (P)	1.29E-05	1	1.29E-05	.22	.02
Error (P)	.009	153	5.86E-05		
E X R	.001	1.98	4.28E-04	25.73***	.19
E X R X P	8.17E-05	1.98	4.13E-05	2.46	.05
Error (E*R)	.005	302.95	1.68E-05		

**p < .01

***p < 0.001

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[3] Values reported are actual values in scientific notation.
[4] Values reported are actual values in scientific notation.

Table 10

Summary of Analyses for all 2 (Target Ethnicity) x 3 (Target Religion) x 2 (Participant

Ethnicity) Iterations

Main Effect – Target Ethnicity (Within Subjects Factor)

All Participants $F(1, 153) = .09, p > .05, \eta = .01$

Arab & Muslim Participants Removed $F(1, 129) = 1.34, p > .05, \eta = .04$

Outliers Removed $F(1, 142) = .80, p > .05, \eta = .03$

Log Transformation $F(1, 153) = .10, p > .05, \eta = .01$

Main Effect – Target Religion (Within Subjects Factor)

All Participants $F(1.76, 268.91) = 31.07, p < .001, \eta = .22$

Arab & Muslim Participants Removed $F(1.76, 226.77) = 25.06, p < .001, \eta = .23$

Outliers Removed $F(1.86, 264.38) = 28.98, p < .001, \eta = .23$

Log Transformation $F(1.76, 269.72) = 31.17, p < .001, \eta = .19$

Main Effect – Participant Ethnicity (Between Subjects Factor)

All Participants $F(1, 153) = .63, p > .05, \eta = .02$

Arab & Muslim Participants Removed $F(1, 129) = .03, p > .05, \eta = .01$

Outliers Removed $F(1, 142) = .40, p > .05, \eta = .03$

Log Transformation $F(1, 153) = .22, p > .05, \eta = .02$

Interaction – Target Ethnicity x Target Religion

All Participants $F(1.98, 302.75) = 25.59, p < .001, \eta = .18$

Arab & Muslim Participants Removed $F(1.97, 254.42) = 31.78, p < .001, \eta = .22$

Outliers Removed $F(1.99, 282.77) = 24.22, p < .001, \eta = .19$

Log Transformation $F(1.98, 302.95) = 25.73, p < .001, \eta = .19$

Interaction – Target Ethnicity x Participant Ethnicity

    All Participants $F(1, 153) = 8.10, p = 005, \eta = .09$

    Arab & Muslim Participants Removed $F(1, 129) = 5.66, p < .05, \eta = .08$

    Outliers Removed $F(1, 142) = 7.58, p < .01, \eta = .09$

    Log Transformation $F(1, 153) = 8.15, p = .005, \eta = .09$

Interaction – Target Religion x Participant Ethnicity

    All Participants $F(1.76, 268.91) = 1.26, p > .05, \eta = .04$

    Arab & Muslim Participants Removed $F(1.76, 226.77) = 1.14, p > .05, \eta = .05$

    Outliers Removed $F(1.86, 264.38) = 1.15, p > .05, \eta = .04$

    Log Transformation $F(1.76, 269.72) = 1.28, p > .05, \eta = .05$

Interaction – Target Ethnicity x Target Religion x Participant Ethnicity

    All Participants $F(1.98, 302.75) = 2.47, p > .05, \eta = .05$

    Arab & Muslim Participants Removed $F(1.97, 254.42) = .18, p > .05, \eta = .02$

    Outliers Removed $F(1.99, 282.77) = 1.77, p > .05, \eta = .05$

    Log Transformation $F(1.98, 302.95) = 2.46, p > .05, \eta = .05$

Table 11

All Participants

Mean Percentage Scores for Arab-Muslim Equivalence Questions

	US Populations		World Populations	
Question	Mean	SD	Mean	SD
What Percentage of Arabs are Muslim?	65.49	21.72	66.69	20.60
What Percentage of Muslims are Arab?	67.04	21.13	69.61	21.53
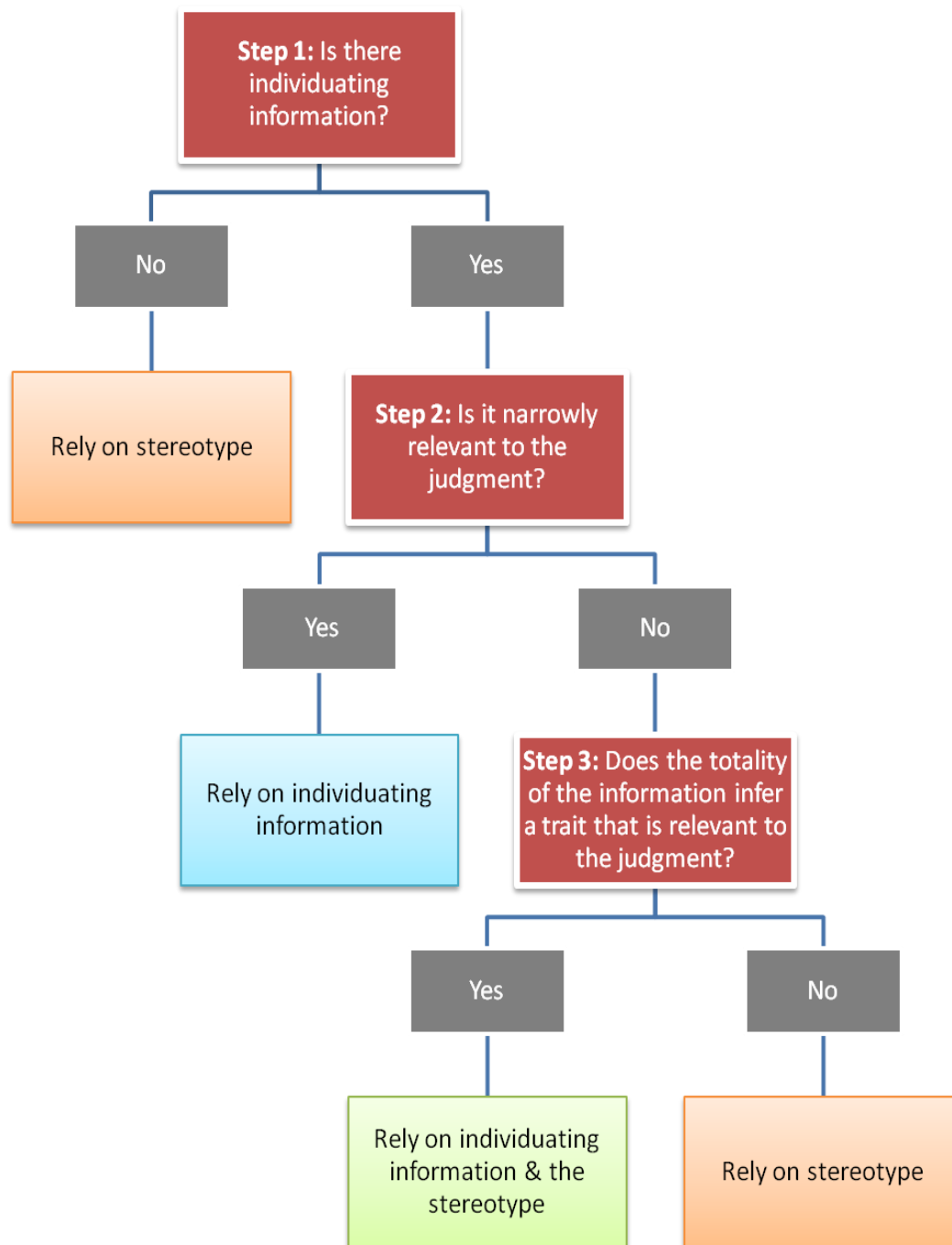
Figure 1. The Stereotyping and Individuation Process Model

Passenger 17

Baggage Contents

- Headphones
- Magazine
- Neck Chain
- Koran
- Camera
- Notebook

Figure 2. Example of Passenger Stimulus Material

This target is indicative of an Arab Muslim passenger. Included in his baggage contents

is a Koran which would cue the participant to the targets religious affiliation.

Additionally, ethnicity is indicated on the right side of the passport image.
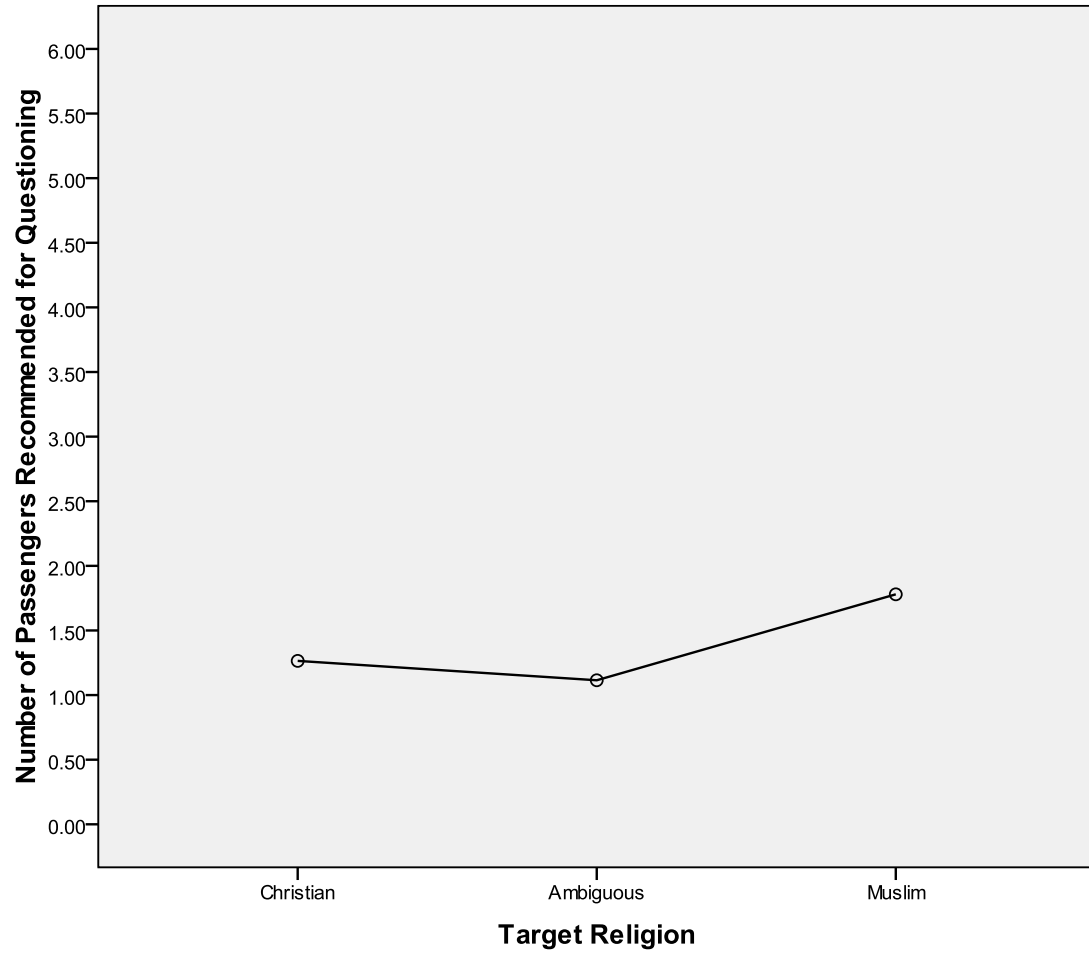
Figure 3. All Participants, Main Effect of Target Religion
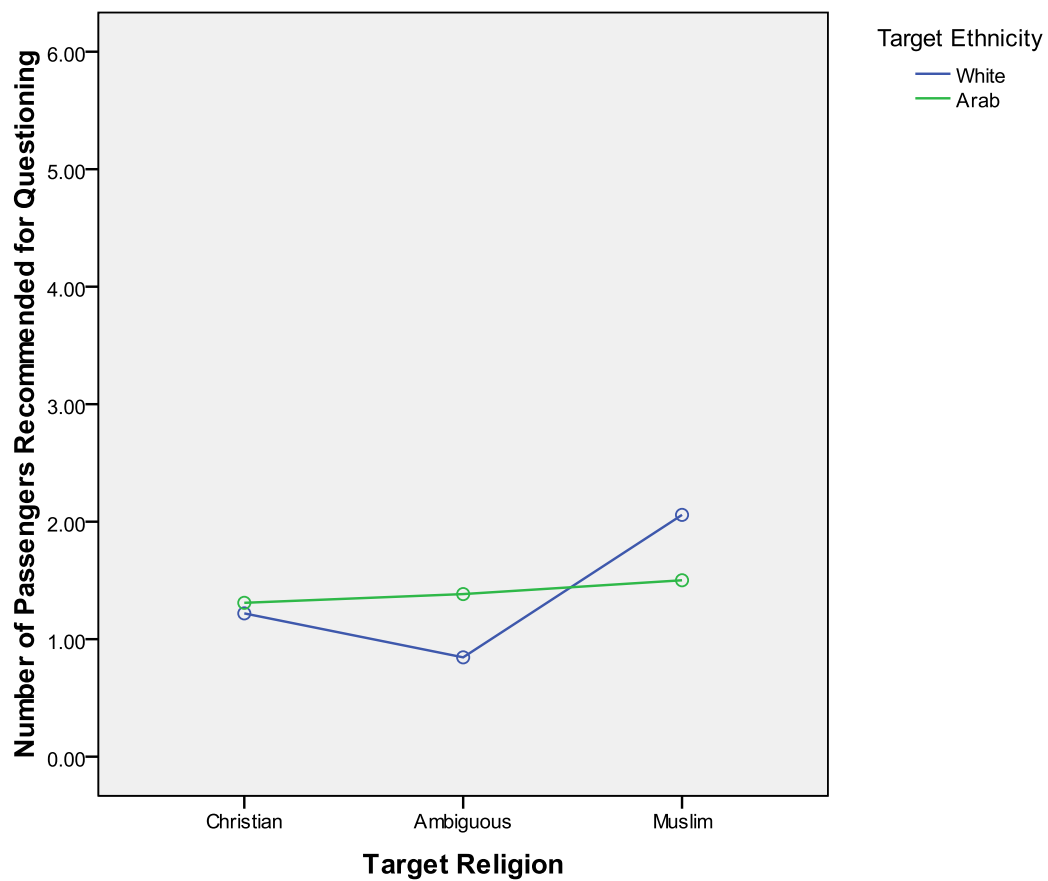
Figure 4. All Participants, Interaction of Target Religion and Target Ethnicity
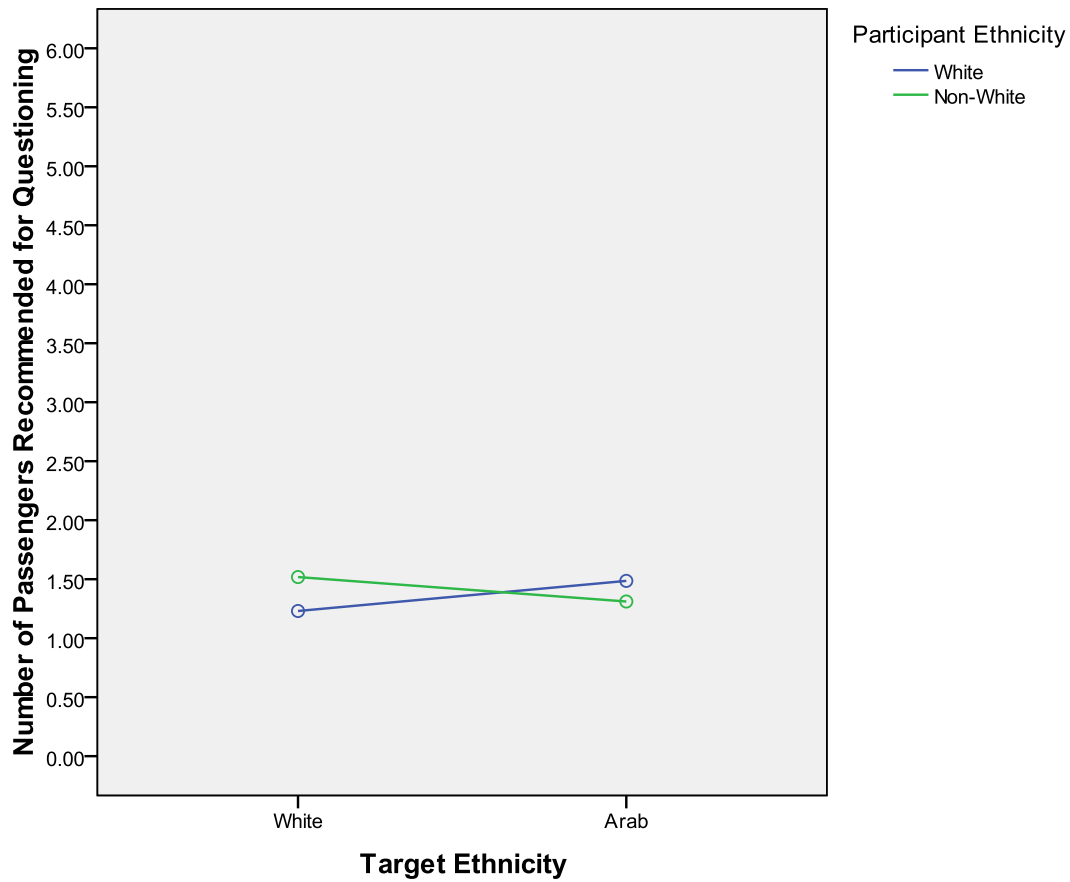
Figure 5. All Participants, Interaction of Participant Ethnicity and Target Religion

Appendix A

Feeling Thermometers

The following ratings are called "feeling thermometers" because they ask you to indicate how you feel about several groups.

Please use a 100 degree scale in which higher temperatures mean that you like the group more. 0 means that you feel very coolly towards the group -- in other words, you dislike them quite a lot. 100 means that you feel very warmly toward the group -- in other words, you like them quite a lot. 50 means that you feel neutral about the group or that you do not feel very strongly about the group or that you do not know much about them.

1. Arab _____

2. Hispanic _____

3. American _____

4. Muslim _____

5. Jewish _____

The following questions address some attitudes you might have about the USA. Please answer to the best of your ability.

1. I consider myself to be patriotic.

1	2	3	4	5	6	7	8	9
Very	Somewhat			Moderate		Not very		Not at all
Patriotic	Patriotic					Patriotic		Patriotic

2. I would be willing to fight for my country.

1	2	3	4	5	6	7	8	9

Very   Somewhat   Moderate   Not very   Not at all

Willing   Willing   Willing   Willing

3. I am proud to be an American citizen

1	2	3	4	5	6	7	8	9

Very   Somewhat   Moderate   Not very   Not at all

Willing   Willing   Willing   Willing

4. The USA is better than most other countries

1	2	3	4	5	6	7	8	9

Much   Somewhat   Moderate   Somewhat   Much

Better   Better   Worse   Worse

5. I would rather be a citizen of the USA than of any other country in the world.

1	2	3	4	5	6	7	8	9

Definitely   Somewhat   Moderate   Somewhat   Definitely

US Citizen   US Citizen   Other Country   Other Country

Appendix B

Anti-Arab Scale

Please answer the following questions on the scale provided. This survey will provide

valuable information about your feelings towards other groups in the United States. There

are no right or wrong answers. Please answer every question to the best of your ability.

Remember that your responses are completely anonymous, so please answer honestly.

1.   Arab Americans have no morals when dealing with other Americans.

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

2.   There is something different and strange about Arab Americans.

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

3.   A major fault of Arab-Americans is their conceit, overbearing pride, and their

  idea that they are a chosen ethnic group.

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

4.   It is wrong for Arab-Americans and other Americans to intermarry.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

5.   Arab American's first loyalty is to their home country rather than America

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

6.   If there are too many Arab-Americans in America, our country will be less safe.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

7.   I can hardly imagine myself voting for an Arab American who is running for an

    important political office.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

8.   One general fault of Arab-Americans is their over-aggressiveness

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

9. You just can't trust a group of young Arab-American men together because they are probably up to criminal activity.

1	2	3	4	5	6	7
Strongly			Neutral			Strongly
Disagree						Agree

10. In order to maintain a nice residential neighborhood it is best to prevent Arab-Americans from living in it.

1	2	3	4	5	6	7
Strongly			Neutral			Strongly
Disagree						Agree

11. If I had been assigned to live in a dorm room with an Arab-American, I would ask to change rooms.

1	2	3	4	5	6	7
Strongly			Neutral			Strongly
Disagree						Agree

Appendix C

Anti-Muslim Attitudes Scale

Please answer the following questions on the scale provided. This survey will provide

valuable information about your feelings towards other groups in the United States. There

are no right or wrong answers. Please answer every question to the best of your ability.

Remember that your responses are completely anonymous, so please answer honestly.

1.   Muslim Americans have no morals when dealing with other Americans.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

2.   There is something different and strange about Muslim Americans.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

3.   A major fault of Muslim Americans is their conceit, overbearing pride, and their

idea that they are a chosen group.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

4.   It is wrong for Muslim Americans and other Americans to intermarry.

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

5.   Muslim American's first loyalty is to their home country rather than America.

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

6.   If there are too many Muslim Americans in America, our country will be less

safe.

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

7.   I can hardly imagine myself voting for a Muslim American who is running for an

important political office.

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

8.   One general fault of Muslim Americans is their over-aggressiveness

1	2	3	4	5	6	7

Strongly   Neutral   Strongly

Disagree   Agree

9.   You just can't trust a group of young Muslim American men together because they are probably up to criminal activity.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

10.   In order to maintain a nice residential neighborhood it is best to prevent Muslim Americans from living in it.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

11.   If I had been assigned to live in a dorm room with a Muslim American, I would ask to change rooms.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

Appendix D

American Attitudes Scale

Please answer the following questions on the scale provided. This survey will provide

valuable information about your feelings towards Americans. There are no right or wrong

answers. Please answer every question to the best of your ability.

Remember that your responses are completely anonymous, so please answer honestly.

1.   Americans have no morals when dealing with non-Americans.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

2.   A major fault of Americans is their conceit, overbearing pride, and their idea that

they are a chosen group.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

3.   An American's first loyalty is to the country of their ethnic origin.

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

4.   One general fault of Americans is their over-aggressiveness

1   2   3   4   5   6   7

Strongly   Neutral   Strongly

Disagree   Agree

Appendix E

Arab-Muslim Equivalence Scale

Try to think about the demographics (age, race, ethnicity, etc.) and religions of the United States. To the best of your knowledge, please answer the following questions about different ethnicities and religions in the United States.

Please try to answer the questions as best as you can. Please do not skip any questions.

In the United States:

1. What percentage of Hispanic people are Catholic?_____

2. What percentage of Muslims are Arab? _____

3. What percentage of Catholics are Hispanic? _____

4. What percentage of Arabs are Muslim? _____

5. What percentage of White people are Christian? _____

In the world:

6. What percentage of Hispanic people are Catholic?_____

7. What percentage of Muslims are Arab? _____

8. What percentage of Catholics are Hispanic? _____

9. What percentage of Arabs are Muslim? _____

10. What percentage of White people are Christian? _____

Appendix F

Political Correctness Scale

1. I usually enjoy listening to people who express ideas very different from my own.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

2. I have never disliked anyone of another ethnic group.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

3. I have never said anything that might make a person feel bad about their physical appearance.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

4. I have made fun of elderly people.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

5. I have never said something that could be interpreted as a racial slur.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

6. I never notice a person's race when I first meet them.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

7. I have considered the possibility that certain students were admitted to college for reasons other than their academic ability.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

8. I find it frustrating to keep up with the correct terms to refer to minority group members.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

9. I have considered the possibility that some welfare recipients might not deserve their benefits

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

10. I have felt unsafe in a neighborhood with a different ethnic composition than my own.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

11. I have considered the possibility that affirmative action programs might be unfair to Whites.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

12. It would bother me if someone of a different sexual orientation made a pass at me.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

13. I am always very patient when I interact with non-English speakers.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

14. My own and other groups' holidays are equally important to me.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

15. I have avoided walking by someone on the street because that person did not belong to my own ethnic group.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

16. I can think of no job that men are more capable of performing than women.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

17. I have considered the possibility that having some scholarships only open to minority students puts White students at a disadvantage.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

18. I believe that minority students and White students have equal academic qualifications.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

19. I really enjoy hearing lectures on minority issues.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

20. I am always friendly when I encounter a homeless person.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

21. I have never made fun of people who speak with a different accent than I do.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

22. I often wish that I could park in a handicapped spot.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

23. Except for childbirth capabilities, there are no important biological differences between men and women.

Strongly Disagree   1   2   3   4   5   6   7   Strongly Agree

Appendix G

Recall Questions

1. **The passport indicates the passenger's ethnicity. What was the ethnicity of the passenger?**

    a. Caucasian

    b. Hispanic

    c. Arab

    d. Indian

2. Did the previous passenger have an umbrella in his carry-on baggage?

    a. Yes

    b. No

3. **What religion was the passenger?**

    a. Christian

    b. Hindu

    c. Muslim

    d. Jewish

4. Was the passenger carrying a blanket?

    a. Yes

    b. No

5. What is the passenger's hair color?

    a. Bald

    b. Blonde

    c. Red

d. Black

6. What is the passenger's ethnicity?

    a. Caucasian

    b. Hispanic

    c. Arab

    d. Indian

7. What religion was the passenger?

    a. Christian

    b. Hindu

    c. Muslim

    d. Jewish

8. Which of the following items was the passenger carrying?

    a. iPod

    b. Scarf

    c. Keys

    d. Tissues

9. Did the passenger have food in his carry-on baggage?

    a. Yes

    b. No

Appendix H

Demographics

We would now like to get some information about you and your background.

What is your ethnic background?

☐ White   ☐ Black

☐ Asian   ☐ Hispanic

☐ Native American   ☐ Middle Eastern

☐ Mixed   ☐ Other _____

Gender: ☐ Male

                ☐ Female

What is your age? _____

What is your political affiliation?

☐ Republican   ☐ Democrat   ☐ Other   ☐ None

How would you describe your political orientation?

1	2	3	4	5	6	7	8	9
Very	Somewhat			Moderate		Somewhat		Very
Conservative	Conservative					Liberal		Liberal

Religion:

☐ Christian   ☐ Jewish

☐ Muslim   ☐ Buddhist

☐ Hindu   ☐ Agnostic (I do not know whether God or gods exist)

☐ Atheist (I do not believe in God or gods)   ☐ Other _____

Please check all that apply:

☐ I am an immigrant   ☐ Both of my parents are immigrants

☐ At least one of my parents is an immigrant   ☐ At least one of my

grandparent(s) is an immigrant

☐ Neither I, nor my immediate family are immigrants

What do you feel was the purpose of this study?

Do you feel you were deceived in any way?