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Muslim women and the veil: an experimental study of social bias

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Muslim women and the veil: An experimental study of social bias

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DEDICATION

This dissertation is dedicated to Sullivan J.H. Shin.

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ABSTRACT

While certain minority groups have gained acceptance in contemporary American society, others continue to experience high levels of bias. Currently, Muslims are one of the most "othered" social groups in American society. In this research, I examine social bias toward Muslims, with a specific focus on Muslim women who veil. Using a 2 (skin tone) X 3 (veil coverage) between-subjects experimental design, participants were shown a female face, and asked to answer a number of survey items designed to measure social bias. Measures of social bias included: attraction, similarity, social distance, moral outrage and stereotypes. There were six experimental conditions in which respondents were assigned to view one of six images of a female face, which varied in terms of skin tone and type of head covering.

I find that veil coverage is an important predictor of social bias. In most cases, when controlling for all other variables, as veil coverage increased, so did social bias. There were also statistically significant differences in social bias based on skin tone. Participants reported significantly less similarity and understanding toward dark skinned targets than light skinned targets. Participants also suggested that dark skinned targets had significantly less social status then light skinned targets. When the main effects of skin tone and veil coverage interacted, social bias based on veil coverage was more pronounced for light skinned targets. Overall, social bias was better predicted by veil coverage than skin tone, which indicated that religion, as derived from veil coverage, is more important in predicting social bias than race, as derived from skin tone. In addition, Islamophobia, or the fear of Muslims, helped to predict social bias toward Muslim

women who veil. As Islamophobia increased, social bias toward veiled targets also increased.

CHAPTER 1

INTRODUCTION

Recent research has found that the majority of Americans agree that they value having diverse people in their communities. However, not all minority groups are accepted equally. While certain minority groups, like Asian Americans, have gained acceptance in contemporary American society, others, like Muslims, continue to experience high levels of bias. A recent survey found that Americans rate Muslims as the most distrusted social group ("Boundaries in the American Mosaic," 2013). My research examines bias toward Muslims, with a specific focus on Muslim women who veil. Using a web experiment, I develop a better understanding of this bias.

This research focuses specifically on Americans' attitudes and bias toward Muslim women who veil. My focus on Muslim women is deliberate. In light of recent events, like the Boston Marathon bombing and the Charlie Hebdo attack in Paris, in addition to the continual relevance of 9/11, it is no surprise that many Americans hold negative attitudes toward Muslims. Additionally, recent survey data suggests that there is a fundamental gap between how Muslim Americans view themselves and how the general American public perceives them. While Muslim Americans consider themselves as highly assimilated to American society, nearly thirty percent (27%) of Americans indicated that they believe Muslims are changing the American culture and way of life for the worse (Pew Research Center, 2011). It is apparent that attitudes and bias towards Muslims are pressing social and political issues that deserve further attention.

In an attempt to both explore a unique way of measuring social bias and to develop a deeper understanding of the sources of bias toward Muslim women who veil, I conducted a web experiment. Using a 2 (skin tone) X 3 (veil coverage) between-subjects experimental design, participants were shown a female face, and asked to answer a number of survey items. There were six experimental conditions in which six images of female faces varied in terms of skin color and type of head covering. Participants were randomly assigned to one of the six target female faces: light skin with no veil, light skin with hijab, light skin with niqab, dark skin with no veil, dark skin with hijab, and dark skin with niqab. In the survey, participants were shown a target face and responded to a series of questions designed to measure social bias. The questions addressed: attraction, similarity, social distance, moral outrage and stereotypes. Participants also answered questions about Islam and secularism. In addition to better understanding bias toward Muslim women who veil, this research attempts to determine what the social bias toward Muslim women is based on, with a specific focus on race, as derived from skin tone, and religion, as derived from veil coverage. In this paper, the term veil will sometimes be used generically in referring to the two types of veil that are explored in this research – the hijab, which covers the hair, but not the face, and the niqab, which covers the hair and entire face except for the eyes.

The significance of this research is that it helps shed some light on why Muslims, specifically Muslim women who veil, continue to experience high levels of bias in contemporary American society. Not only does this research contribute to the understanding of social bias toward Muslim women who veil, it helps to determine the ultimate source of such bias. Using social identity theory, social boundaries, and

intersectionality, I will formulate research hypotheses that reflect the sources of bias with a particular focus on how skin tone and veil coverage impact bias.

In the following chapter, I will discuss the relevant literature with a specific focus on measuring social bias and bias toward Muslim women who veil. I will also outline the theoretical framework that informed my research hypotheses and list my hypotheses. In Chapter Three I will discuss methodology. I will describe participant characteristics and how the experiment was conducted. I will also address all of the variables of interest and how they were measured. In Chapter Four I will present the results of the research, and in Chapter Five I will discuss the implications of the results, the limitations of the study and will provide suggestions for future research.

CHAPTER 2

LITERATURE REVIEW

In this chapter, I will first discuss the literature on social bias with a particular focus on the difficulties associated with measuring social bias. Second, I will discuss the literature on social bias toward Muslims with a specific focus on social bias toward Muslim women who veil. Third, I will describe the inspiration for the current research. Fourth, I will propose the theoretical framework that informed the hypotheses of this study. Lastly, I will outline the research hypotheses.

Social Bias

In order to fully understand social bias, it is helpful to situate the topic within the broader area of attitude research. While the prevalence of attitude research within the field of social psychology has ebbed and flowed, Allport's 1935 claim that attitudes are "the most distinctive and indispensable concept in American social psychology" (p. 798) largely holds true today. Attitudes result from and elicit three types of processes: affective, behavioral, and cognitive (widely known as the tripartite model or the A, B, Cs of attitudes) (Zanna & Rempel, 1988). When considering attitudes toward Muslims, researchers may be able to determine an individual's attitude based on their feelings, their behaviors and their beliefs toward Muslims. For example, an individual's attitude may involve their emotions or feelings tied to 9/11 (affect). Attitudes toward Muslims may be tied to one's avoidance of individuals or groups who appear to be Muslim (behavior). Finally, attitudes towards Muslims may correspond to beliefs about the group (e.g., Muslims are terrorists) (cognitive) (Fiske, 2010).

When considering the relationship between attitudes and social bias it is important to note that bias stems from a category-based response, or reaction to an individual as an interchangeable member of a social group. Similar to the tripartite model of attitudes, social bias may result in three corresponding responses: prejudice, discrimination, and/or stereotyping. Prejudice, or emotional reactions to an individual based on one's feelings about a group, is an affective bias. Discrimination, or denying equality based on one's stereotypes and prejudices, is a behavioral bias. Stereotyping, or applying one's beliefs about a group to an individual is a cognitive bias (Fiske, 2010). In addition, certain individuals may experience extreme forms of bias if they carry a socially constructed stigma, or discredited not fully human status. Erving Goffman (1963) is best known for work in this area. Goffman, a famous symbolic interactionist, defines three types of stigma: stigma resulting from physical deformities (e.g., a cleft palate), stigma that arises due to individual character blemishes (e.g., mental disorder), or stigma based on race, nation and religion.

Although it is apparent that stereotyping, prejudice and discrimination are all related, it is important to point out that they represent unique forms of bias. For example, people may hold stereotypical thoughts, but not act on them or people may have strong prejudices without accompanying stereotypical beliefs. This research focuses on prejudice, stereotypes, and discrimination, which are measured with a series questions designed to capture participants' beliefs, emotional reactions, and anticipated actions in regards to a series of target faces.

Measuring Social Bias. Attitudes and bias are measured in numerous ways. They can be measured directly, indirectly or with psychophysiological measures. Most

commonly, attitudes are measured with self-reports. These direct, or explicit, measures of bias often take the form of a survey or questionnaire, in which participants indicate their responses to a series of questions and scales. One common self-report measure is the Symbolic Racism Scale, which is a modern measure of racism in which items that focus on prejudice are concealed among a variety of other questions about political attitudes (Henry & Sears, 2002). Numerous researchers have found that self-reported responses to direct attitude questions tend to be highly context dependent, meaning that minimal changes in things like question wording, survey format, and question order drastically affect the results. For instance, the term "drugs" takes on a different meaning in the context of a survey on health insurance than in the context of a survey on crime (Schwarz, 2008). In addition, open response format may produce very different results than closed response format. For example, when respondents were asked what they consider to be most important in preparing children for life, over half of respondents selected "to think for themselves" when it was part of a list. When an open response format was used, fewer than five percent of respondents indicated a similar answer (Schuman & Presser, 1981). Furthermore, question order can impact responses. Assimilation effects occur when positive (negative) information results in a more positive (negative) judgment (Schwartz, 2008). For example, when participants are asked about general life satisfaction and marriage satisfaction, there is a stronger correlation when marital satisfaction questions are asked first, which indicated that when marriage was brought up, participants included their marital satisfaction in their assessment of their lives in general. Happily married couples reported higher general life satisfaction than unhappily married couples when their attention was first drawn to questions regarding

their marriage, followed by questions regarding general satisfaction (Schwarz, Strack, & Mai, 1991).

To combat the problems associated with direct self-reports researchers have developed more indirect methods to measure attitudes and bias. These measures frequently utilize implicit attitudes. Unlike explicit measures, implicit measures do not require that participants are aware of their attitudes. Methods that utilize implicit attitudes examine evaluations or feelings that cannot be consciously controlled or contemplated (Devos, 2008). Decades ago, implicit attitudes were measured with sequential priming techniques in which participants were shown the name of an attitude object followed by a positive or negative adjective. Participants were asked to indicate, as quickly as possible, if the target word was positive or negative. The idea was that if the attitude object elicited a negative implicit attitude then the response to the negative adjective would be quicker (Fazio, Sanbonmatsu, Powell, & Kardes, 1986).

Currently, the most widely used implicit measures rely on response latency, or the period of time between the introduction of a stimulus and a detected response (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). The best known response latency measure is the Implicit Association Test, or the IAT. Through a series of five sections, this test "measures the strength of associations between concepts (e.g. black people, gay people) and evaluations (e.g. good, bad) or stereotypes (e.g. athletic, clumsy). The main idea is that making a response is easier when closely related items share the same response key" (Project Implicit, 2011). Along similar lines, another implicit attitude measure, the Go/No-Go Association Test (GNAT) asks participants to match concepts with positive or negative words by either pressing the spacebar ("go") or not ("no go").

The advantage of this method is that it can assess the strength of an association between a concept and its evaluation (Nosek & Banaji, 2001).

While implicit measures are widely-used and highly regarded methods of attitude and bias measurement, they are not without criticism. For instance, researchers find that implicit measures, much like explicit ones, are also context dependent and can be influenced by things like interviewer race and ethnicity. For example, in a study conducted by Wittenbrink, Judd and Park (2001), participants indicated more positive automatic evaluations of African Americans when the experimenter was black rather than white. In this case, the experimenters may act as a highly accessible positive example that influenced participant evaluations of the group in general. Even though the IAT has sparked numerous critiques regarding the validity of the measure, a meta-analysis conducted by Greenwald et al. (2009) found that the IAT is particularly effective when dealing with sensitive subjects, like bias. This meta-analysis reviewed 122 studies, which included more than 14,000 participants and found that while explicit measures had a stronger predictability of behavioral, judgment, and physiological measures than implicit measures, the predictive validity of self-report responses was weakened for socially sensitive topics. For instance, when looking at Black-white interracial behavior, the validity of the IAT significantly exceeded self-report measures.

A final way of measuring attitudes and bias is with psychophysiological measures. Psychophysiological measures used by social psychologists include skin conductance (sweating), changes in facial expression, heart rate and brain activity. For example, while electrodermal (skin conductance) measures are common since they are relatively easy to obtain, they are problematic in that they are unable to reflect the

direction of the response, whether it be favorable or unfavorable. Changes in a participant's facial expression are more useful in that they can reflect both the direction and extremity of the response. These measures are often tricky to obtain, though, because unrelated facial movements may alter the response. Changes in heart rate, or pulse, is another physiological measure that is frequently used by experimental social psychologists. Finally, brain activity can be measured by recording electric signals through electroencephalography (EEG). While this method cannot directly assess positive or negative responses, the direction of the evaluation is determined based on the fact that unexpected stimuli induce brain activity different from the activity evoked by expected stimuli. While these techniques may be the most unbiased measures of attitudes, they require expensive and sophisticated training and equipment that may not be readily available (Schwarz, 2008).

Experimental Design. An advantage of experimental design is the opportunity for random assignment. While subjects may not be randomly selected, and often should not be, they can be randomly assigned to experimental conditions. Experimenters can utilize random assignment by unsystematically (e.g., flipping a coin) assigning participants to various experimental conditions in which they are exposed to different levels of independent variables. The significance of this randomization is that it ensures that researchers do not create group differences. Therefore, any observed difference in the dependent variable can only be attributed to the experimenter's manipulation of the independent variable or chance. This experimental control allows the researcher to make statements about causality between the independent and dependent variables (Haslam & McGarty, 2004). No other sociological method has this power. For this reason, I have

developed a web experiment to study bias toward Muslim women who veil. Since I utilized student volunteers as participants, I was not able to get a random sample. However, using a random number generator, I was able to randomly assign participants to each of my experimental conditions and ensure that any differences in the dependent variables are due to my experimental manipulation or chance.

Social Bias toward Muslims

Muslims are people who follow the religion of Islam. Not all Arabs are Muslims; in the U.S. only about 25 percent of Arab Americans identify as Muslims. Still, it is difficult to provide a discussion of attitudes toward Muslim Americans without also addressing Arabs. Given that Americans get a majority of their information on Muslims from the news, it is important to recognize the role of the media when examining Americans' attitudes towards Muslim Americans. In their examination of U.S. news reports, Nacos and Torre-Reyna (2002) found that news media outlets tend to report on Muslims and Arabs in the same stories, both in the U.S. and abroad and more significantly, were likely to use the terms in an interchangeable fashion. While it is crucial to point out that not all Muslims are from Arab countries, and that not all Arabs are Muslim, many Americans do not make this distinction. Since my research focuses on Americans' attitudes, I utilize the histories and identities of both Muslims and Arabs since the overlap and interchangeability of the two groups seems to reflect widely held beliefs.

Muslims as "others." This current research draws on the work of Edgell, Gerteis & Hartmann (2006) and the American Mosaic Project, which is a nationally representative, multi-method study that examines how Americans understand ethnic,

religious and racial diversity. When the study was conducted a decade ago, Americans indicated that atheists were the most "othered" social group. However, when the study was replicated in 2014, Muslims surpassed atheists as the most "othered" group in American society. Throughout this paper I refer the "other" or "othered" in terms of Schwalbe, Godwin, Holden, Schrock, Thompson, & Wolkimer's (2000) concept of oppressive othering, or the process through which "one group seeks advantage by defining another group as morally and/or intellectually inferior" (p. 423). Respondents reported the highest levels of distrust and marriage disapproval for Muslims in the most recent wave of the study ("Boundaries in the American Mosaic," 2014**).** This recent data, along with a history of exclusion for Muslims indicates the need to further explore the social bias toward this highly "othered" group.

A History of Exclusion. While Muslims have always faced some degree of exclusion in American society, in the past they had been afforded the option to be labeled as white, or perhaps "white, but not quite" (Samhan, 1999) is a more accurate description, and therefore remain hidden. After 9/11 however, Muslim Americans no longer had the option to remain invisible. Those perceived to be Arabs and Muslims were held collectively responsible for the attacks of 9/11 and views of their collective status as a "backward or barbaric" culture were widely held among Americans (Cainkar, 2008). While American prejudice toward most minority groups has decreased in recent decades, this is not the case for Muslims. In fact, since 9/11, Muslims in the United States have faced higher levels of intolerance than ever before (Cainkar, 2002; Edgell et al., 2006; Kalkan, Layman, & Uslaner, 2009). Although this increased level of prejudice may be new, Muslims' history of exclusion from American society goes much deeper.

Historically, political and social segregation may help to explain present-day exclusion of Muslim and Arab Americans. Since the 1967 Arab-Israeli war, a series of U.S. governmental actions led to the profiling of Arabs in America. In most cases, Arab-Americans were not afforded the same civil rights as other citizens and were unable to exercise their freedom of speech, which resulted in political voicelessness (Cainkar, 2002). Furthermore, Arab-Americans were also excluded at the community level, and access was only available for light-skinned Arabs.

September 11 led to further alienation of this already excluded group. Out of the 20 new rules, regulations and laws directed at immigrants and non-immigrant visitors to the US, 15 largely targeted Arabs. Some consequences have been profiling of Arabs at U.S. airports, holds on visa applications, monitoring of Arabs living and attending school in the U.S., and deportation of non-citizen Arab males ("Illinois Coalition"). Amongst these negative impacts, there are some good things that have occurred for Arab Americans since 9/11. There has been an increase in the desire for public education about Islam. For instance, in a major initiative backed by the Chicago Community Trust, Chicago public school systems explored ways to change class curriculums to include the study of Arabs, Islam and the Middle East (Cainkar, 2002). The events of 9/11 have also led to a significant increase in conversions to Islam in the US. Although difficult to get an accurate count, it is estimated that up to 20,000 Americans convert to Islam each year (Scirbey, 2011), which suggests that for perhaps the first time ever, Islam is being recognized as an American religion.

Religious Identity. Louise Cainkar (2002), a leading scholar of the study of Muslims in the U.S., suggests that the development of a Muslim religious identity was a

crucial element in dealing with the history of exclusion. In many cases, historical exclusion resulted in the development of transnational identities for Arab immigrants. Many first-generation immigrants embraced a national Arab identity and identified as Americans only secondarily. Many American-born Arab children felt differently, though, and favored a fully American identity. While some Arabs focused on their national identity, this was not the case for all immigrants, many of whom wanted to mask their Arab identities. To do this they changed their names to American versions and socially organized with non-Arabs. Regardless, Arab immigrants experienced a more flawless incorporation into American society if they were Christian, which corresponded to whiteness. In the 1990s, many Arab Muslims went through a major identity shift in which their identity went from a secular basis to a religious one; they began to identify themselves first as Muslims and then as Arabs. Muslim women who did not previously cover their hair began to veil, and Islam became a public, active lifestyle (Cainkar, 2002).

By studying the experiences of Muslim university students, Peek (2005) develops a model of religious identity development. In many cases, especially for children, religion begins as an ascribed identity. In this stage, religion is usually not a salient identity. In the second stage, when religion becomes a chosen identity, the self-identification as a Muslim takes a central role, often overriding other core identities such as ethnicity and nationality. When religion becomes a declared identity in the third stage, which often occurred after the attacks of 9/11, Muslim students recognized the need to assert their religious identities in order to combat widespread misunderstandings. While not all religious groups, and not all Muslims, develop identities in this manner, it is helpful to acknowledge that religious identity is constructed and enacted. This notion is particularly

relevant to second-generation immigrants who often deal with multiple and at times incompatible or conflicting identities.

Social Bias toward Muslim Women

The history of Muslim exclusion helps us to fully comprehend the experiences of Muslim American women in the United States. In the previous section, I have discussed this history of exclusion and provided the theoretical groundwork needed to analyze the process of "othering" for Muslim Americans. It became clear to me when conducting this research that the experiences of Muslim men and women must indeed be substantially different. For instance, in terms of identity formation, Muslim women who chose to veil are not allowed the opportunity to claim whiteness as many Muslim men were able to. I assume, although future research is needed in this area, that when one sees a woman wearing a traditional veil she is immediately "othered," regardless of race. This notion would also be present in the stereotypical media portrayals of veiled Muslim women, in which Americans are led to believe that the hijab is symbol of oppression (Bartkowski and Read, 2000). In this next section, I will focus specifically on the experiences of Muslim women who veil.

The Islamic veil. It is nearly impossible to come across literature that addresses Muslim women without also discussing the veil. The Islamic veil can take numerous forms. In this research I will focus on two. The hijab is a veil that covers the head and chest. Another type of veil, the niqab, covers the head, chest and face, leaving only an opening for the eyes. In the existing literature it is common for the authors to address the widely disputed meanings that exist between the veil and Islam. Traditional Muslims take a pro-veiling stance and largely believe that the veil protects a woman's chastity. It is also

a symbol of a Muslim woman's obedience to Islamic principles. Many feminists challenge the more traditional interpretations of the Qur'an and suggest that the veil is a form of censorship and punishment for Muslim women. Feminists often associate the veil with submission and marginality. They cite Qur'an verses that promote gender equality (Read and Bartkowski, 2000; Bartkowski and Read, 2003). Overall, the meaning of the veil is highly contested site of gender controversy between traditionalists and feminists.

The Importance of the Veil in Defining Community. The veil is an important identity marker for Muslim women. In fact, many Muslim women living in the United States "come to rely on Islamic women's friendship networks that form around the veil" (Bartkowski and Read, 2003, p. 80). For many, the veil serves the purpose of unification by providing the basis for a shared sense of community. When a woman wears a veil, it is an easily recognizable indicator that she is different from other American women; she is Muslim. This allows for a certain level of cultural comfort. When a woman wears the veil, other Muslim women are able to immediately begin communicating in Arabic (Bartkowski and Read, 2003).

While the veil may symbolize community for Muslim women, especially those living in a Western society, where the veil is not common, many American women resist traditionalism and choose not to wear a veil. This notion is apparent in qualitative interviews conducted by Bartkowski and Read (2003), in which respondents indicated that the sense of community for Muslim American women goes beyond the veil. "Many veiled women empathized with their sisters who opt against wearing the veil" (p. 84). When asked about the devoutness of Muslim women who do not wear a veil, hijab-

wearers were quick to defend unveiled Muslims, claiming that religious beliefs were as important as religious practice. In the other direction, some unveiled Muslim women expressed acceptance and understanding for Muslim women who wear the hijab; actually, many Muslim women who do not currently veil, did at one point in their lives. A quote from one interview respondent, Amma, perhaps best sums up this sense of community among hijab-wearers and unveiled Muslim women alike. She said, "Muslim society doesn't exist on the veil. Without the veil you would still be Muslim" (p. 84).

The Veil as a Definition of Cultural Identity. Clothing and dress is one way in which information, and sometimes misinformation, is communicated. This nonverbal communication, which often comes before any sort of verbal exchange can give off signs regarding a person's age, sex, and socioeconomic status. The veil reflects the wearer's religious and cultural preferences. When an American Muslim woman chooses to wear a veil, it indicates to others that she is a follower of Islam and is not fully assimilated to Western society (Lurie, 1981).

While it is largely accepted that the veil holds multiple meanings, most Muslim women agreed that ultimately that wearing the veil is a way to achieve full public participation in the United States. Many Muslim American women feel conflicted by the contradictory traditional Islamic and modern U.S. values and by wearing the veil they are able to embrace both American and Muslim identities simultaneously. Williams and Vashi (2007) suggest that the veil acts as a cultural resource that embodies the voluntary nature of religion in the US. The veil becomes a symbol for autonomy and equality. Basically, the veil is a cultural assertion of identity (Ajrouch, 2007). Furthermore, the veil is a woman's assertion that she is an active participant of a particular social group.

Women whose Muslim identity is particularly salient may be more inclined to express this identity through dress, or wearing a veil (Reece, 1996).

In multiple articles (Arjouch, 2007, Williams & Vashi, 2007, Keddie, 1990) it was noted that the veil is especially significant for the identities of college students. For college students, the veil may reflect the more active roles of women in the Islamist movements. Many young, educated Muslim women are embracing Islam and are dedicated to studying the Qur'an in order to find passages that justify their arguments for equality between men and women. In this situation, the veil can be interpreted as a badge that signifies the respectability of the woman it covers (Reece, 1996). As discussed above, many Muslim women college students may see the veil as means to bridge the gap between traditional Islam and U.S. values (Ajrouch, 2007).

Immigration and Status in the United States. When considering the experiences of Muslim American women it is important to account for immigrant status. Numerous studies find that the experiences of Muslim women in the United States are unique from those that live in other countries (see Arjouch, 2007 and Robinson, 2010). Ajrouch and Kusow (2007) suggest that it is necessary to consider immigrant status since one's status in their country of origin, in addition to the systems of stratification in the US, work together to create various integration outcomes. For instance, while religion may be a salient status marker in the country of origin (e.g., Lebanese and Somali Muslims), the combination of religion and race may form the most prominent identities when in the United States. Specifically, while Somali immigrants were classified as black, they utilized their unique religious status to differentiate themselves from other black minority groups. In this case, religion became the most salient identity, and Muslim

women were more likely to wear the hijab in the Western world than they were in Somalia. On the other hand, since Lebanese Muslims were classified as white, they used this privileged status to create a more mainstream Islamic identity.

Inspiration for the Study Design

This current research builds on a study conducted by El-Geledi and Bourhis (2012). In this previous research, El-Geledi and Bourhis examined the impact of the Islamic veil on ethnic attitudes and acculturation orientations toward Muslims for Quebec Francophone students. Using a web-based experiment, the researchers used computer-generated images of a woman so that that same woman was shown wearing traditional western clothing, a Catholic nun's habit, a hijab, or a niqab. Participants were asked to give their first impression of the woman and respond to a series of attitudinal questions. Results indicated that respondents had the least favorable attitudes toward the woman wearing the niqab followed by the woman wearing the hijab. Respondents expressed the most favorable attitudes toward the woman wearing western clothing. While I appreciated the overall design of this study, I found it problematic that the woman in all of the pictures was clearly European American looking (e.g., light skin and light hair). By using both light skinned and dark skinned targets, my research expands on this previous research by including a dimension of skin color.

Theoretical Framework

This research examines the roles of religion, race and the intersections of race and religion to explore social bias toward Muslim women who wear various forms of veil. As previously discussed, Muslim women who veil represent a unique social group. A goal of this research is to develop a deeper understanding of the source or sources of bias toward

Muslim women who veil. Does the bias stem from religion? Race? A combination of both? Something else? The following theoretical frameworks informed my research hypotheses, which I propose in the next section.

Social Identity Theory. The process of "othering" for Muslim women who veil may be understood by using social identity theory. Social identity theory situates interactions along a continuum from interpersonal to intergroup. One's social identity is derived from one's group membership (Tajfel, 1982). As discussed above, the veil allows women to express their Muslim identity. Social identity theory supposes that because Muslims' are religiously, culturally, and ethnically different from mainstream Judeo-Christianity, Americans are less likely to trust and tolerate them, which results in viewing them as an "out-group." Thus, since Muslims have always existed outside of mainstream American society, it makes sense that they have faced exclusion and discrimination both before and after 9/11. In terms of the process of "othering," Kalkan et al. (2009) suggest that Americans may differentiate between two "bands of others," one based on racial and religious minority groups and the other based on cultural minorities. The authors propose that Muslims are linked to both bands, but find evidence that Americans' attitudes toward Muslims seem to be more closely tied to cultural outgroups (e.g., gays and illegal immigrants), as opposed to racial and religious minorities (e.g., African Americans and Jews). This is an important distinction since views toward cultural minorities are often more difficult to change.

Social Boundaries. This historical and present-day exclusion of Muslim and Arab Americans and the increases in anti-Muslim violence post-9/11 may reflect the notions of symbolic boundaries as proposed by Lamont and Molnár (2002). To fully

understand this religious boundary creation and maintenance in terms of Americans' attitudes, it is necessary to look at the role of religion in the United States. It has been well-documented (see Tocqueville, 1992) that Christianity has played in integral role in America's history. Along similar lines, Robert Bellah (1985, 1991) emphasizes the importance of Judeo-Christian religions in personal identity formation and civic engagement. The religious convergence that occurred in the 20th century helps to explain the concept that religion, not necessarily Christianity, is the basis for trust in American society. In general, Americans have more trust in those that are religious. It has also been suggested that an increase in religious pluralism, largely due to immigration and globalization, has resulted in greater religious tolerance (Edgell, Gerteis, & Hartman, 2006). While this may be the case for Protestants, Catholics, and Jews, the greater acceptance of religious diversity does not appear to extend to Muslims.

Lamont and Molnár (2002) define symbolic boundaries as "conceptual distinctions made by social actors to categorize objects, people, practices, and even time and space. They are tools by which individuals and groups struggle over and come to agree upon definitions of reality…Symbolic boundaries also separate people into groups and generate feelings of similarity and group membership" (p. 168). When widely agreed upon, symbolic boundaries can become social boundaries, or "objectified forms of social differences manifested in unequal access to an unequal distribution of resources (material and nonmaterial) and social opportunities" (p. 168). In their paper, Lamont and Molnár discuss the relationship between symbolic and social boundaries and determine that symbolic boundaries are frequently used to enforce and maintain social boundaries, while simultaneously contesting and reframing their meanings. When considering American's

attitudes toward Muslim Americans it is apparent that symbolic boundaries, which may have initially formed based on immigration status or religious differences, have indeed potentially become so salient that they have resulted in social boundaries. Since Muslims are both viewed as an "out-group" in contemporary American society and put at a distance by symbolic and social boundaries, I hypothesize that participants will express more social bias toward targets wearing a veil than targets with no veil.

Intersectionality. While it is important to consider both religion and race, as derived from skin tone, when examining social bias toward Muslim women, it is also important to consider the intersection of race and religion. Kimberly Crenshaw (1989), who coined the term intersectionality, recognized the need to examine how both race and gender interact to create the multiple dimensions of Black women's employment experiences. Intersectionality, as feminist Patricia Hill Collins (1999) describes it, refers to the "interlocking systems of race, class and gender," which constitute a "matrix of oppression." Theories of intersectionality suppose that inequality cannot be understood unidimensionally and must be examined through an intersectional lens (Browne & Misra, 2003). For example, it is not appropriate to simply state that men oppress women in the economic realm. By lumping all men all women together, the complexities of the labor market are overlooked. For instance, in some cases white women have higher incomes than Black, Mexican and Puerto-Rican men (Browne, 1999; McCall, 2000).

Approaches of intersectionality can move beyond race, class and gender, and the matrix of oppression might also include dimensions of age, ability, and sexuality (Weber, 2001). Religion, nationality, native language, immigrant status among other aspects could also be incorporated into an intersectional perspective. Overall, these dimensions occur

simultaneously and the intersections should be examined whenever possible. Therefore, with the use of a factorial design, I have included a study of the intersections of race and religion in this study by utilizing six experimental conditions that vary in terms of skin tone and veil coverage. Research conducted for the American Mosaic Project finds that religious minorities such as Atheists, Buddhists, and Mormons have higher rates of distrust than racial and ethnic minorities such as Asian American, African Americans and Hispanics/Latinos ("Boundaries in the American Mosaic," 2014). Since these findings suggest that racialized distrust is relatively low compared to other groups like religious outsiders, I hypothesize that religion (as derived from veil coverage) will carry more weight than race (as derived from skin tone). The intersection of race and religion is further informed by colorism, Islamophobia and belief in secularism.

***Skin tone preference*.** Even if religion may carry more weight than race, the notion of colorism supposes that light skinned people experience social advantages over dark skinned people. Colorism, or skin tone stratification, is a process that privileges light skinned people over dark skinned people in areas such as education, income, and housing. In this process, light-skinned people experience clear societal advantages even when controlling for other background variables (Hughes & Hertel, 1990; Kieth & Herring, 1991). Racial discrimination is a structural issue that is based on two levels: race and skin color. Although all racial minorities experience discrimination based on their racial category, the intensity of the discrimination is dependent on skin tone. For instance, light skinned African Americans may have a higher income than dark skinned African Americans, but both earn less than whites. While race is a social concept, colorism is specifically concerned with actual skin tone, as opposed to a racial or ethnic

identity. Colorism is a reflection of the larger system of racism in the United States and worldwide (Hunter, 2007).

Colorism is practiced both by whites and people of color. For example, research has found that many racial minorities will choose to marry a light skinned woman as opposed to a dark skinned woman (Hunter, 1998; Udry Baumann, & Chase, 1971). In addition, research on children has found that both white and non-white children hold pro-white biases (Averhart & Bigler, 1997; Stokes-Guinan, 2011). This preference for light skin is deeply ingrained in our contemporary American culture. An analysis of the popular media, such as the work of Jean Kilbourne (1999), reveals the notion of a beauty ideal, in which the standards are light skin and Anglo features. Based on this research, I hypothesize that participants will express less social bias toward light skinned targets than dark skinned targets.

Islamophobia. Islamophobia is the fear of Muslims and the Islamic faith (Lee, Gibbons, Thompson, & Timani, 2009**)**. As outlined in the previous sections, Muslims have always been excluded from American society, but since the attacks of 9/11, social bias toward Muslims has reached an all-time high. Even though only a small portion of Muslims are responsible for acts of terrorism, many Americans view Islam and Muslims as irrational, backward, and dangerous (Gottschalk & Greenberg, 2008). The Islamic veil, as a symbol of Islam, has been found to trigger negative reactions. The veil may be viewed as a threat to equal rights achieved by feminist movements, a political symbol of the rising power of religious fundamentalism or the refusal of Muslim women to assimilate with mainstream society (El-Geledi & Bourhis, 2012). Since the niqab is a more extreme version of the veil than the hijab, Muslim women who wear the niqab may

face even more bias than those who wear the hijab. Based on the findings of El-Geledi & Bourhis, I hypothesize that participants will express the most social bias toward the targets wearing the niqab, followed by targets wearing the hijab, relative to targets with no veil.

Islamophobia has been measured in numerous ways. Lee, Gibbons, Thompson, & Timani (2009) measured Islamophobia with the Islamophobia Scale, which they describe as "a self-report measure of an individual's fear-related attitudes toward Muslims and the religion of Islam" (p. 157). The Islamophobia Scale includes two factors, Islamophobia – AB and Islamophobia – CG. Lee et al. (2013) found that the Islamophobia Scale is reliable across time and is most sound as a two-factor model.

Using a confirmatory factor analysis, Lee et al. (2013) found that the Islamophobia scale is best represented by two, positively correlated factors. The first eight items of the scale reflect the affective-behavioral component of Islamophobia, including items that focus on avoidance-related emotions and behaviors toward Muslims (i.e. "If I could, I would live in a place where there are no Muslims"). The second eight items of the scale reflect the cognitive component of Islamophobia, including items that focus on the belief that Muslims and Islam are dangerous (i.e. "Islam supports terrorist acts").

Another measure is Islamoprejudice, which was measured using items from the short version of the Scale for Islamoprejudice and Secular Critique of Islam (SIPSCI) developed by Imhoff and Recker (2012). Imhoff and Recker (2012) make the important distinction between prejudice toward Muslims and secular critique of Muslim practices. They found that measures of Islamoprejudice and measures of the secular critique of

Islam were mostly independent of each other, which indicates the necessity to look at both areas when researching attitudes toward Islam (Irmhoff & Recker, 2012). Since there is not a definitive measure of Islamophobia, I used all three measures in this research to determine which measure is best at measuring social bias toward Muslim women who veil.

Secularism. Previous research has found that Islamophobia can result from both prejudiced views toward Muslims and a secular critique of religious practices (Irmhoff & Recker, 2012). Some researchers suggest that an attempt to understand bias in terms of Islamophobia does not capture genuine and rational critiques of religious traditions, habits and regimes (Irmhoff & Recker, 2012; Halliday, 1999; Malik, 2005). For instance, those with strong secular beliefs may critique religious practices such as veiling, circumcision and the ritual slaughtering of animals, not necessarily because they are non-Christian, but because they reflect cultures that support extreme submission to religion and therefore do not allow individuals to hold secularist values (Ozyurek, 2005).

Since Imhoff and Recker (2012) found that it was important to differentiate between prejudice toward Muslims and secular critique of Muslim practices, I used two measures of secularism in this study. First, I used the Secular Critique of Islam subscale as designed by Irmhoff and Recker (2012). This subscale was designed to measure the secular critique of Islam and included items that touch on the separation of church and state, gender relations, universalist values and fundamentalism. Second, a more general belief in secularism was measured using questions developed by Francis and Greer (1992) and with several original items developed by the author of this research.

Hypotheses

In this research, social bias is measured in numerous ways. I use questions designed to measure attraction, similarity, social distance, moral outrage and stereotypes to capture social bias. Lower ratings on the attraction items, similarity items and the stereotypes (warmth, social status and competence) reflect higher social bias. Higher ratings on the social distance, moral outrage and the competition stereotype items reflect higher social bias. I also included attitudinal measures of Islamophobia and secularism to further explore social bias toward Muslim women who veil.

Based on the literature review and theory described above, my research hypotheses are:

1. As veil coverage increases, social bias toward the target will increase.
2. Participants will express higher levels of social bias toward dark skinned targets than light skinned targets.
3. Veil coverage will have a greater impact on social bias than skin tone.
4. In the case of interaction effects, veiling will have a greater impact on social bias for dark relative to light skinned targets.
5. Islamophobia and Secularism will moderate the impact of veil coverage on social bias. Veiling will be associated with more social bias among those with higher (versus lower) levels of Islamophobia and Secularism.

CHAPTER 3

METHODS

In Chapter Two I outlined the significance of the study of social bias, specifically in terms of Muslim women. I have also outlined a theoretical framework for this research and proposed hypotheses. As mentioned, Muslim women, especially those who veil, represent a unique social group. As minorities in terms of race, religion, sex, country of origin, etc., it is my goal to determine the ultimate source of bias. In this chapter I will discuss the methods, procedures and data analyses utilized to test the hypotheses outlined in the previous chapter. First, I will begin by discussing participants. Next, I will describe the process of selecting participants and the administration of the survey instrument. Third, I will provide a description of the measures used in the experiment. Finally, I will outline the experimental and statistical tests used to analyze the data.

Participants

Participants for this study came from sociology and criminal justice classes at Iowa State University in the spring of 2014. The classes contacted for participants included: Introduction to Sociology, Youth and Crime, Deviant and Criminal Behavior, Sociology of Intimate Relationships, Social Problems and American Values, Social Psychology: A Sociological Perspective, and Sex and Gender in Society. The overall participation rate was 29.92% (395/1320), however I ended up with 352 participants (26.74% participation rate) with usable data. Since some participants did not fill out the demographic section of the survey, and I include participant sex as a variable in my analyses, I was unable to use some of the responses. Out of the respondents whose data

was not used: ten were in the light skin, no veil condition; ten were in the light skin, hijab condition, three were in the light skin, niqab condition; ten were in the dark skin, no veil condition, two were in the dark skin, hijab condition, and seven were in the dark skin, niqab condition. In addition, not all respondents completed all questions, so some dependent variables have fewer than 353 responses.

My participation rate is higher than rates found in previous research. When looking at web surveys, without incentives, Sax, Gilmartin, and Bryant (2003) found that response rates to Your First College Year (YFCY), a national survey of first-year college students, was 19.8 percent. They found that response rates to web surveys, with incentives, was 17.1 percent (p. 417). Participation rates varied by class and were largely dependent on the instructor's offering of extra credit; classes in which extra credit was offered for survey participation had the highest participation rates. Overall, the sample is one of convenience and results should not be taken to represent the Iowa State University student population as a whole.

Participant Characteristics. The majority of participants in the sample were women. Sixty-four percent were female (n = 224) and 36.36 percent were male (n = 128). The average age was 20.63 years old. Sample participants represented all class years: 25.28 % (n = 89) were first years, 20.74% (n = 73) were sophomores, 26.99% (n = 95) were juniors, 26.42% (n = 93) were seniors, and 0.57% (n = 2) classified as other.

The students in the sample came from a wide variety of majors. Criminal Justice was the most popular major (17.33%, n = 61) followed closely by Psychology (16.48%, n = 58). Other popular majors included Liberal Arts (10.80%, n = 38) and Sociology (8.24%, n = 29). Overall, out of the 350 respondents, 64.29% (n = 225) were from the

College of Liberal Arts and Sciences. It is important to consider the majors of the participants when analyzing the results since students studying criminal justice, psychology and sociology may be aware of items and concepts in the study, which may influence the results. If students were familiar with the measures, they may have responded in socially desirable ways.

The majority of the sample were not of Hispanic or Latino/a ethnicity (91.19%, n = 321) and classified as white for race (84.66%, n = 298). While respondents reported many religions, the majority of students in the sample were predominantly Christian. The largest group of participants classified as Christian - Catholic (25.57%, n = 90). The second most popular religion was Christian - Other (21.88%, n = 77) followed by Unaffiliated – Agnostic (17.61%, n = 62). (See Table 3.)

Table 3

Demographic Characteristics of Participants

Characteristic	N	Percent
Age (years) (N = 352)		
18	34	9.66
19	84	23.86
20	79	22.44
21	72	20.45
22	46	13.07
23	10	2.84
24	12	3.41
25	5	1.42
26	1	0.28
27	3	0.85
28	1	0.28
29	1	0.28
35	3	0.85
39	1	0.28

Table 3 continued

Sex (N = 352)		
Female	224	63.64
Male	128	36.36
Class Year (N = 352)		
First Year	89	25.28
Sophomore	73	20.74
Junior	95	26.99
Senior	93	26.42
Other	2	0.57
Major (N = 352)		
Bio. Or Life Sciences	26	7.39
Business	19	5.40
Communications	9	2.56
Computer & Info. Sciences	2	0.57
Crim. Justice	61	17.33
Education	11	3.13
Engineering	15	4.26
Family Studies	7	1.99
Health Prof. or Related Sciences	26	7.39
Humanities	4	1.14
Liberal Arts	38	10.80
Mathematics	3	0.85
Physical Sciences	5	1.42
Psychology	58	16.48
Sociology	29	8.24
Other Soc. Sciences/History	3	0.85
Visual or Performing Arts	2	0.57
Other	34	9.66
College (N = 350)		
Ag. & Life Sciences	29	8.29
Business	18	5.14
Design	8	2.29
Engineering	13	3.71
Human Sciences	51	14.57
Liberal Arts & Sciences	225	64.29
Other	6	1.71
Ethnicity (N = 352)		
Hispanic or Latino	21	5.97
Not Hispanic or Latino	321	91.19

Table 3 continued

Unknown	10	2.84
Race (N = 352)		
American Indian/Alaska Native	4	1.14
East Asian	3	0.85
South Asian	4	1.14
Black or African American	17	4.83
White	298	84.66
More than one race: Black/White	7	1.99
More than one race: Other	10	2.84
Other or Unknown	9	2.56
Religious Affiliation (N = 352)		
Christian - Protestant – Mainline Church	34	9.66
Christian – Protestant – Evangelical Church	35	9.94
Christian Protestant – Historical Black	5	1.42
Christian – Catholic	90	25.57
Christian – Jehovah's Witness	1	0.28
Christian – Other	77	21.88
Buddhist – Other	1	0.28
New Age	1	0.28
Unaffiliated – Athiest	30	8.52
Unaffiliated – Agnostic	62	17.61
Any other religion not listed above	16	4.55

Note: Respondents who identified as Muslim (n = 2) and international students (n = 9) were removed from the study.

Contacting Students. Prior to conducting the study, I got approval for human subject research through the Iowa State University Institutional Review Board. To obtain student email addresses, I contacted Iowa State University sociology and criminal justice professors teaching during the spring 2014 semester. Those that agreed to let their students participate in the study provided me with class lists. Some of the professors offered extra credit for students that completed the study. In addition to the initial invitation, which was sent on April 28, 2014, reminder emails were sent to non-respondents four, eight, and eleven days after the study opened. Overall, the study ran for seventeen days and closed on May 14, 2014.

The Experiment

Using a 2 (skin tone) X 3 (veil coverage) between-subjects experimental design, participants were shown a female face, and asked to answer a number of survey items. There were six experimental conditions. Survey measures and questions were exactly the same in each condition, but the image that participants responded to was different. There were six images that varied in terms of skin color and type of head covering. There were two skin tone conditions: light skin and dark skin. There were three head covering conditions: no veil, hijab and niqab. Each participant was randomly assigned to one of the six conditions.

The experiment was conducted though a web survey utilizing Qualtrics survey software. Participants were emailed an invitation to participate (see Appendix A), which included a survey link. The survey consisted of five sections and twenty-six screen pages. The first section was a description of the study and informed consent. Since the study was conducted entirely over the web, in lieu of signatures on the informed consent document (See Appendix B), participants were informed that "By clicking 'Next' below you are indicating that you are at least 18 years of age, that you voluntarily agree to participate in this study, that the study has been explained to you, and that you have been given the time to read the document and that your questions have been satisfactorily answered." Participants were also given the option to print the consent document for their records.

Since the study of social bias has the potential to bring about socially desirable responses (Schwarz, 2008), it was important that participants were unaware that the true purpose of the study was to measure bias toward Muslim women who veil. Therefore, in the study description, I described the survey as simply as one of person perception; the

purpose was to gain a better understanding of how we perceive others. Participants were told that they would view a series of faces and asked to respond to a series of questions regarding their attitudes toward the people in the images. After consenting to participate, participants viewed a collage of various faces (See Appendix C) and the prompt, "In this section, you will be shown one of these faces and asked to rate the person based on his or her appearance. When you click next you will be randomly assigned a face." At this point, participants were not aware of the true purpose of the study and did not know the factors being tested.

In the second section of the survey, participants were shown a target face and responded to a series of questions designed to measure social bias. The questions addressed: attraction, similarity, social distance, moral outrage and stereotypes. The questions were arranged on eight screens and the target face was at the top of each page. The following section will further discuss these measures.

The third section of the survey was designed to measure beliefs about religion and secularism. It began with a screen much like the first section. Participants viewed a collage of religious symbols (See Appendix D) and the prompt, "The next set of questions are about religion. When you click next, you will be randomly assigned to answer questions about one of these religions." Again, participants were deceived to think that they would be randomly assigned a religion, but in reality all participants answered the same questions about Islam. Questions in this section measured Islamophobia, utilizing both cognitive and affective-behavioral measures, and secular critiques of Islam. The section also included a series of questions designed to measure the participant's views on secularism.

The fourth section included a series of demographic questions. Respondents were asked to report their: sex, age, class year, ethnicity, race, religious affiliation, and political identity. Participants were also asked if they were international students and what college and major they were in. For purposes of this study, international students (n = 9) and those that identified as Muslim (n = 2) were removed. International students were removed because I wanted to focus specifically on Americans' attitudes toward Muslim women. With the continual significance of 9/11, Muslims continue to be one of the most "othered" minority groups in contemporary American society (Edgall & Gerteis, 2006). Furthermore, Muslims were removed since the aim of the research was to study out-group rather than in-group bias.

The final section included a document that informed participants of the true purpose to the study – to measure social bias toward Muslim women who veil (See Appendix E). It also restated that all survey results will be kept strictly confidential. At the end of the document, participants were given the option to remove their data from the survey, now that they were aware of the full purpose of the research. Only four participants wanted their data removed. This suggests that the deception was not a big issue for that sample. Finally, after debriefing participants were asked if they were aware of the true purpose of the study. Just over fifty-one percent (51.83 %, n = 170) of participants reported that they were aware of the true purpose of the study. This is important to keep in mind when interpreting the results. Since over half of the participants reported that they were aware of the true purpose of the study, the results may reflect socially desirable responses.

Measures

As addressed in the previous section, the study consisted of six experimental conditions. Using a 2 (skin tone) X 3 (veil coverage) between-subjects factorial design, the six conditions consisted of two skin tone variations and three head covering variations. Participants were randomly assigned to one of the six target female faces: light skin with no veil, light skin with hijab, light skin with niqab, dark skin with no veil, dark skin with hijab, and dark skin with niqab. To ensure that there was no confusion, participants viewed their randomly assigned target face at the top of every page of questions. Therefore, there was no need to test participants' memory of the image.

Target Face. The image of the woman was taken from Project Implicit (http://www.projectimplicit. net/stimuli.html). This website, which is a multi-university research collaborations contains links to Implicit Association Tests (IAT) as well as materials and tools for researchers. One section of the website contains stimulus materials for social and behavioral research. Here, researchers are able to access images used in many IATs. The target face used in this research came from the light skin and dark skin IAT. The particular woman's image was selected because of her hairstyle, which did not have any hair on her face. This was necessary because the image of the women was photoshopped to wear a hijab and niqab, which cover the hair. In addition, the woman's skin was photoshopped to have light or dark skin tones (See Figure 3). For the introductory collage of faces, I used stimulus images from the Asian/white faces, Native/white faces and light skin and dark skin IATs.

Light skin X no veil | Light skin X hijab | Light skin X niqab

Dark skin X no veil | Dark skin X hijab | Dark skin X niqab

Figure 3. Target faces.

Attraction. Attraction was measured using items from Moreland and Beach (1992). These items were selected to be used in this research because they had previously been used by Moreland and Beach to test the reactions of college students to photos of female target faces. Furthermore, the measures, which in addition to assessments of personality characteristics, include questions about friendship, spending time together, and working on projects, are relevant to college-age students.

Following Moreland and Beach, attraction was measured with three single items and a 10-item semantic differential scale**.** Participants were shown their target face and

given the prompt “Imagine meeting this woman and learning more about her. Estimate the probability that you would…”

Attraction 1: “like her and become friends with her.”

Attraction 2: “enjoy spending time with her.”

Attraction 3: “work with her on some project of mutual interest.”

These three attraction items were measured with eleven-point scales ranging from zero to one hundred percent probability. The three separate attraction measures were highly correlated, as expected ($\alpha = .91$).

Next, participants were asked to rate the target on ten personality dimensions: interesting – boring, unattractive – attractive, unselfish – selfish, unpopular – popular, unconceited – conceited, unintelligent – intelligent, warm – cold, unsuccessful – successful, honest – dishonest, insincere – sincere. The bipolar adjectives were separated by a seven-point response scale. For purposes of scoring, the items were reverse-coded, if applicable, and then averaged to produce a single measure of attraction. Attraction index scores ranged from 2.5 to 7 ($M = 4.40$, $SD = 0.69$); higher scores indicated greater attraction. The ten Attraction Index items were also highly correlated ($\alpha = .73$).

Similarity. As with attraction, similarity was measured with three separate similarity measures and a similarity index. Again, measures were taken from Moreland and Beach (1992). As previously stated, these measures were selected because they were effective in previous research and applicable to college students. For the three separate similarity measures, respondents were shown the target face and given the prompt “Imagine meeting this woman and learning more about her. Estimate the probability that…”

Similarity 1: "she would turn out to come from the same social background as myself."

Similarity 2: "I would be able to understand her personality fairly well."

Similarity 3: "I would discover that her plans for the future are similar to my own."

As with the attraction measures, participants responded to an eleven-point scale that ranged from zero percent to one hundred percent, with ten percent intervals. The three separate measures of similarity were highly correlated ($\alpha = .78$).

For the Similarity Index, participants were shown the target face and given the prompt: "Compare yourself with this woman. For each trait, rate whether it is stronger in your personality or stronger in hers." Participants rated the target on the following personality characteristics: interestingness, attractiveness, selfishness, popularity, conceitedness, intelligence, warmth, successfulness, honesty, and sincerity. Using a seven-point scale, participants rated the personality characteristics from "1 = stronger in my personality" to "7 = stronger in her personality." The mid-point was "4 = about the same in both our personalities." For scoring, responses were then folded around the mid-point and averaged to create a single similarity measure which ranged from zero to three ($M = 2.19$, $SD = 0.62$); higher scores represent greater similarity. In other words, a response value of 4 was recoded to 3 (maximum similarity); a response value of 5 or 3 was recoded to 2; a response value of 6 or 2 was recoded to 1; and a response value of 7 or 1 was recoded to 0 (maximum dissimilarity). The items comprising the Similarity Index were highly correlated ($\alpha = .85$).

Social Distance. Social distance was measured using a revised social distance scale (Kleg & Yamamoto, 1998). Participants viewed the target face and the prompt "Social distance means the degree that individuals desire to associate with others. Please select that highest degree of association you would desire to have with someone like her. Give your first reaction. " Based on the original Bogardus social distance scale, participants selected one of seven possible distances: to keep out of my country, to have as a visitor to my country, to have as a speaking acquaintance only, to work in the same office, to have as next-door neighbor, to have as best friend, or to marry into my family. Responses were scored from one to seven ($M = 3.61$, $SD = 1.37$), with higher values reflecting greater social distance. In other words, "marry into my family" was assigned a value of one and "keep out of my country" was assigned a value of seven.

Moral Outrage. Moral outrage was measured using items adapted from Tetlock, Kristel, Elson, Green, and Lerner (2000). As Tetlock et al. (2000) explain, moral outrage is a composite psychological state that subsumes cognitive aspects, such as harsh character attributions to those who endorse normative transgressions; affective aspects, such as anger toward those who endorse deviant thoughts; and behavioral reactions such as support for punishing deviant thinkers, and is one of the most empathic ways to distance oneself from normative transgressions. Since morality is frequently linked with religion (Bloom, 2012) and social bias results in affective, behavioral and cognitive responses, I deemed these measures appropriate to use in the current study.

Participants were shown their target face and given the prompt: "Please indicate your reaction to members of this group." The moral outrage items included nine judgments, which were measured on a 7-point scale, with anchors at one and seven:

should be banned – should be permitted, highly moral – highly immoral, highly upsetting – not at all upsetting, not at all sad – extremely sad, not at all tragic – tragic, not at all offensive – highly offensive, no anger – great deal of anger, very irrational – very rational, completely crazy – completely sane. For purposes of scoring, items were reverse coded, if necessary, and scores were averaged to create a Moral Outrage Index. Scores on the Moral Outrage Index ranged from 2.85 to 5.15 ($M = 3.52$, $SD = 0.50$). The nine items that comprised the index were highly correlated ($\alpha = .92$).

Stereotypes. Stereotypes were measured using items from Fiske, Cuddy, Glick and Xu's (2002) stereotype content model. As mentioned in Chapter 2, stereotyping is a cognitive response to social bias. Fiske et al. (2002) provide perhaps the most comprehensive analysis of stereotypes and argue that stereotypes are captured by two dimensions – warmth and competence. "Subjectively positive stereotypes on one dimension do not contradict prejudice but often are functionally consistent with unflattering stereotypes on the other dimension" (Fiske et al., 2002, p. 878). In addition, the authors identify two aspects of intergroup relations – relative status and competence in society, which predict the group's standing on the two dimensions of stereotyping. Fiske et al. (2002) find that the combinations of perceived warmth and competence (low competence, low warmth; low competence, high warmth; high competence, low warmth; and high competence high warmth) result in different affective reactions: pity, envy, contempt, and admiration

In this research, participants viewed the target face and the prompt, "Setting aside your personal beliefs, how do you think someone like her is viewed by others? As, viewed by society, how _____ is someone like her?" Using a five-point scale,

ranging from 1 = not at all to 5 = extremely, participants rated people like the target on the following personality characteristics: competent, confident, independent, competitive, intelligent, tolerant, warm, good-natured, and sincere. For purposes of scoring, responses to the first five items were averaged to create a competence index (α = .89) and scores from the last four items were average to create a warmth index (α = .91).

Next, while viewing the target face, participants were given the prompt, "We are not interested in your personal beliefs, but in how you think someone like her is viewed by others. As viewed by society _____." Participants responded to: how prestigious are the jobs typically achieved by people like her; how economically successful have people like her been; how well educated are people like her; if people like her get special breaks (such as preference in hiring decisions), this is likely to make things more difficult for people like me; the more power people like her have, the less power people like me are likely to have; and resources that go to people like her are likely to take away from the resources of people like me. The five-point response scale ranged from 1 = not at all to 5 = extremely. For scoring purposes, responses to the first three items were averaged to create a status index (α = .90) and responses to the final three items were averaged to create a competition index (α = .87).

Islamophobia. Islamophobia was measured using the two factors, Islamophobia – AB and Islamophobia – CG, from the Islamophobia Scale developed by Lee, Reid, Short, Gibbons, Yeh and Campbell (2013). The first eight items of the scale reflect the affective-behavioral component of Islamophobia, including items that focus on avoidance-related emotions and behaviors toward Muslims (e.g., "If I could, I would live in a place where there are no Muslims"). The second eight items of the scale reflect the

cognitive component of Islamophobia, including items that focus on the belief that Muslims and Islam are dangerous (e.g., "Islam supports terrorist acts") (For all items, see Appendix F). I used these scales in my study and participants responded to each of the statements using a five-point scale ranging from 1 = strongly disagree to 5 = strongly agree. Responses to each factor's eight items was then summed to create a single measure for the affective-behavioral factor (Islamophobia – AB) and the cognitive factor of Islamophobia (Islamophobia – CG). Islamophobia – AB scores ranged from 8 to 40 (M = 15.09, SD = 6.79), and the eight items were highly correlated (α = .94). Islamophobia – CG scores ranged from 7 to 40 (M = 14.70, SD = 7.25), and the items were highly correlated (α = .97).

Islamoprejudice was measured using items from the short version of the Scale for Islamoprejudice and Secular Critique of Islam (SIPSCI) by Imhoff and Recker (2012). Irmhoff and Recker (2012) conducted two studies and in the second study created a short version of the Scale for Islamoprejudice and Secular Critique of Islam (SIPSCI), which consisted of nine items designed to measure Islamoprejudice and six items designed to measure secular critique. The items were selected from the long version of the scale because there was high item-total correlation, a minimum of scale heterogeneity and a balance of positive are reverse-coded items (Irmhoff & Recker, 2012). I used the Islamoprejudice sub-scale as a measure of Islamophobia. Statements designed to measure Islamoprejudice included items that describe Islam as wrong, different, archaic, and irrational (For all items, see Appendix G). Respondents were asked to indicate their level of disagreement/agreement based on a five-point scale that ranged from 1 = strongly disagree to 5 = strongly agree. Following Irhmoff and Recker (2012), respondents' scores

were averaged to create a single measure for Islamoprejudice. For my sample, Islamoprejudice scores ranged from 1.33 to 4.25 (M = 2.63, SD = 0.54), and the items were highly correlated (α = .70).

Secularism. I used two measures of secularism in this study. First, I used the Secular Critique of Islam subscale as designed by Irmhoff and Recker (2012). This subscale was designed to measure the secular critique of Islam and included items that touch on the separation of church and state, gender relations, universalist values and fundamentalism (For all items, see Appendix G). Respondents were asked to indicate their level of disagreement/agreement based on a five-point scale that ranged from 1 = strongly disagree to 5 = strongly agree. Following Irhmoff and Recker (2012), respondents' scores on each of the scales were averaged to create one measure the secular critique of Islam. Secular Critique of Islam values ranged from one to five (M = 3.46, SD = 0.62), and higher scores indicated a higher secular critique of Islam. The items were highly correlated (α = .75).

Second, a general belief in secularism was measured using questions developed by Francis and Greer (1992) and with several original items developed by the author of this research. At the beginning of this section of the survey, participants were given the prompt "Secularism is the belief that religion should not play a role in government, education or other public parts of society. Please indicate the extent to which you disagree or agree with the following items about secularism." Statements ranged from beliefs about the role of religion in society (i.e., "Religion has done more harm than good in the history of humankind,") to the role of government (i.e., "The government should be independent of and hostile to religion of any kind") (For all items, see Appendix H).

Participants responded to the statements using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree. A single measure of secularism, the Secularism scale, was creating by averaging responses to the items. Secularism scale values ranged from one to five (M = 3.22, SD = 0.84), and the items were highly correlated (α = .91)

Demographics. Participants responded to a series of demographic questions (See Appendix I). Participants were asked their age, sex, class year, major and college. They were also asked if they were an international student. Participants were asked to report their ethnicity, race, and religious affiliation. All demographic questions were forced-choice responses to help with coding and analysis. The overall format of the demographic questions was modeled after the demographic section on the Implicit Association Test through Project Implicit (https://implicit.harvard.edu/implicit/) because the response categories were complete and captured the information that was desired.
(For a complete list and description of variables, see Appendix J. See Appendix K for a Correlation Table with all study variables.)

Methods of Analysis

First, I cleaned and re-coded the data, when necessary. Then, I created indexes and scales, as described in the sections above. Third, I computed descriptive statistics for each of the study variables. Fourth, I conducted ANCOVA tests to determine the relationships between variables. I conducted fully-crossed three-way ANCOVAS (skin tone, veil, participant sex) on each of the fourteen dependent variables (See Appendix J). Next, I included measures of Islamophobia as covariates and conducted ANCOVAs on each of the fourteen dependent variables. I also conducted ANCOVAs with measures of secularism as covariates. In Chapter Four, I will discuss the results of the analyses.

CHAPTER 4

RESULTS

In this chapter I will discuss the results of the analyses of variance and covariance. First, I conducted three-way, fully-crossed ANCOVAs to examine the main effects of skin tone, veil, and participant sex, and the interaction effects for these variables: skin tone X veil, skin tone X sex, veil X sex, and skin tone X veil X sex. When interaction effects were not statistically significant they were removed from the model. In each case the null hypothesis was that all group means for the dependent variable are equal (H_o: $\mu_1 = \mu_2 = \ldots = \mu_{12}$). The alternative hypothesis was that the group means are different for the dependent variable (H_a: $\mu_1 \neq \mu_2 \neq \ldots \neq \mu_{12}$). As proposed in Chapter 2, I hypothesized that levels of social bias should increase with skin tone, from light skin to dark skin and should increase with level of veiling, from no veil to hijab to niqab.

Next, I explored whether Islamophobia and secularism could help explain the impact of skin tone and veiling on social bias. I added measures of Islamophobia (Islamophobia – AB, Islamophobia – CG, and Islamoprejudice) and secularism (Secular Critique of Islam and Secularism scale) as covariates to the models and examined interaction effects. For each dependent variable, I will describe the results of the best fitting models. An alpha = 0.05 was used in all tests of significant and the strength of the models was determined by model R^2.

Attraction

Table 4.1a shows mean responses to, “Estimate the probability that you would like and become friends with her.” Overall, participants did not express a great deal of

liking toward the targets. Most of the averages fell near the midpoint of the response scale (5.0 or 50%). The highest probability estimate of liking was given by female participants to the light skinned target with no veil (M = 61.7%) and the lowest was given by male participants to the dark skinned target wearing the hijab (M = 38.1%). Table 4.1b shows the results of the statistical analysis of these responses. There were no significant interaction effects, and the only significant main effect was participant sex ($F(1,349) = 6.01$, $p = .01$). Male participants indicated a significantly lower probability of liking and becoming friends with the target (M = 48.9%) than female participants (M = 55.3%), independent of skin tone or veil.

Table 4.1a

Mean responses to the probability of liking and becoming friends with target.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	36	6.17	34	5.15	37	5.62
	Dark Skin	38	5.47	34	6.00	44	4.91
Male							
	Light Skin	22	5.14	17	5.35	20	5.30
	Dark Skin	20	4.95	32	3.81	17	5.59

Note. Response values range from 0 to 10, with higher values indicating greater probability.

Table 4.1b

ANCOVA results for the probability of liking and becoming friends with target.

Variable	DF	F Value	*p*	η^2
Sex	1	6.01	.01	.65
Skin	1	2.47	.12	.27
Veil	1	0.72	.40	.08

Note. Model F (3, 347) = 3.07, p = .03, R^2 = .03

Table 4.2a shows mean responses to, "Estimate the probability that you would enjoy spending time with her." Participants did not express a great desire to spend time with the target as most of the averages fell near the midpoint of the response scale (5.0 or 50%). The highest probability estimate of enjoying spending time with the target was given by female participants to the light skinned target wearing the hijab (M = 62.9%) and the lowest was given by male participants to the light skinned target with no veil (M = 46.4%). Table 4.2b shows the results of statistical analysis of these responses. There were no significant interaction effects, and the only significant main effect was participant sex ($F(1, 349) = 6.80$, $p = .01$). Male participants indicated a significantly lower probability of enjoying spending time with the target (M = 49.3%) than female participants (M = 56.1%), independent of skin tone or veil.

Table 4.2a

Mean responses to the probability of enjoying spending time with target.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	36	5.78	34	5.44	37	5.76
	Dark Skin	38	5.34	34	6.29	44	5.18
Male							
	Light Skin	22	4.64	17	5.06	20	5.35
	Dark Skin	20	4.90	32	4.88	17	5.59

Note. Response values range from 0 to 10, with higher values indicating greater probability.

Table 4.2b

ANCOVA results for the probability of enjoying spending time with target.

Variable	DF	F Value	*p*	η^2
Sex	1	6.80	.01	.92
Skin	1	0.22	.64	.03
Veil	1	0.41	.52	.05

Note. Model F (3, 347) = 2.54, p = .06, R^2 = .02

Table 4.3a shows mean responses to, "Estimate the probability that you would work with her on some project of mutual interest." Participants were more likely to express attraction for this measure than the previous two measures. Even though all of the responses fell above the midpoint of the response scale (5.0 or 50%), there was no condition in which participants estimated the probability that they would work with the target to be higher than 70%. The highest probability estimate of working with the target was given by female participants to the dark skinned target wearing the hijab (M = 68.2%) and the lowest was given by female participants to the dark skinned target

wearing the niqab (M = 57.3%). Table 4.3b shows the results of the statistical analysis of these responses. There were no significant interaction or main effects in this model.

Table 4.3a

Mean responses to the probability of working with target.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	36	6.64	34	6.12	37	6.46
	Dark Skin	38	6.16	34	6.82	44	5.73
Male							
	Light Skin	22	5.82	17	5.82	20	6.05
	Dark Skin	20	6.10	32	5.81	17	6.59

Note. Response values range from 0 to 10, with higher values indicating greater probability.

Table 4.3b

ANCOVA results for the probability of working with target.

Variable	DF	F Value	*p*	η^2
Sex	1	1.27	.26	.86
Skin	1	0.08	.78	.05
Veil	1	0.13	.72	.09

Note. Model F (3, 347) = 0.48, p = .69, R^2 = .004

Table 4.4a shows mean responses to the Attraction Index, which was a single measure of attraction based on participants' rating of the target on ten bipolar adjectives. Overall, participants did not report high levels of attraction toward the target. Most of the averages fell around the midpoint of the response scale (4.00). The highest Attraction Index score was given by female participants to the dark skinned target wearing the hijab

(M = 4.84), and the lowest was given by male participants to the light skinned target with no veil (M = 4.06). Table 4.4b shows the results of the statistical analysis of these responses. There were no significant interaction effects, but the main effects of participant sex ($F(1, 350) = 10.99$, $p = .001$) and veil ($F(1, 350) = 11.85$, $p = .0006$) were statistically significant. Male participants indicated significantly lower Attraction Index scores (M = 4.23) than female participants (M = 4.23), independent of skin tone or veil. Independent of skin tone or participant sex, as veil coverage increased, attraction increased ($b = 0.15$).

Table 4.4a

Mean responses to the Attraction Index.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	36	4.29	34	4.60	37	4.66
	Dark Skin	39	4.07	34	4.84	44	4.55
Male							
	Light Skin	22	4.06	17	4.57	20	4.09
	Dark Skin	20	4.16	32	4.28	17	4.29

Note. Response values range from 1 to 7, with higher values indicating greater attraction.

Table 4.4b

ANCOVA results for Attraction Index.

Variable	DF	F Value	*p*	η^2
Sex	1	10.99	.001	.48
Skin	1	0.06	.81	.002
Veil	1	11.85	.0006	.52

Note. Model F (3, 348) = 7.94, $p < .0001$, $R^2 = .06$

Summary of Attraction. Overall, participants expressed very little attraction toward any of the targets. While they expressed higher probabilities that they would work with the target on a project of mutual interest, means for the other attraction measures generally fell near the midpoint of the scales. Participant sex had the largest effect on attraction. Overall, male participants expressed less attraction toward the targets than female participants. The effects of skin tone and veil were not very strong. For the Attraction Index, the impact of veil was in an unexpected direction. It was hypothesized that as veil coverage increased, attraction would decrease. This was not the case for the Attraction Index.

Similarity

Table 4.5a shows mean responses to, "Estimate the probability that she would turn out to come from the same social background as myself." Mean responses to this question varied substantially across conditions. Most of the averages fell below the midpoint of the response scale (5.0 or 50%). The highest probability estimate of similar social background was given by female participants to the light skinned target with no veil (M = 64.0%), and the lowest was given by male participants to the light skinned target wearing the niqab (M = 18.5%). Table 4.5b shows the results of the statistical analysis of these responses. The three-way interaction was not statistically significant. There was a significant main effect for participant sex ($F(1, 349) = 4.66$, $p = .03$). Male participants indicated a significantly lower probability that the target would come from the same social background (M = 2.88) than female participants (M = 3.33), independent of skin tone or veil. There was a significant main effect for veil ($F(1, 349) = 101.72$, $p < .0001$) and a significant skin tone X veil interaction ($F(1, 349) = 4.79$, $p = .03$). As veil

coverage increased, probability decreased that the targets would come from the same social background as the participant (*b* = -1.17). Inspection of the interaction effect showed that the slope of this decrease was significantly steeper for the light skin tone target (*b* = -0.65).

Table 4.5a

Mean responses to the probability of coming from the same background.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	6.40	34	1.88	37	2.35
	Dark Skin	39	4.56	34	2.68	44	2.23
Male							
	Light Skin	22	4.86	17	2.53	20	1.85
	Dark Skin	20	4.25	32	2.00	17	1.88

Note. Response values range from 0 to 10, with higher values indicating greater probability.

Table 4.5b

ANCOVA results for the probability of coming from the same background.

Variable	DF	F Value	*p*	η^2
Sex	1	4.66	.03	.04
Skin	1	3.28	.07	.03
Veil	1	101.72	< .0001	.89
Skin*Veil	1	4.79	.03	.04

Note. Model F (4, 344) = 28.05, p < .0001, R^2 = .24

Table 4.6a shows mean responses to, “Estimate the probability that you would be able to understand her personality fairly well.” On average, mean responses hovered around the midpoint of the scale (5.0 or 50%). The highest probability estimate of

understanding her personality was given by female participants to the light skinned target with no veil (M = 68.0%), and the lowest was given by male participants to the dark skinned target wearing the hijab (M = 44.4%). Table 4.6b shows the results of the statistical analysis of these responses. There were no significant interaction effects, but the main effects of skin tone ($F(1, 349) = 4.42$, $p = .04$) and veil ($F(1, 349) = 7.93$, $p = .005$) were statistically significant. Participants indicated that they were more likely to understand that light skinned target's personality fairly well (M = 5.76) than dark skinned target's personality (M = 5.22). Furthermore, as veil coverage increased, participants' decreased their estimates of understanding the target's personality ($b = -0.43$), independent of skin tone or participant sex.

Table 4.6a

Mean responses to the probability of understanding target.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	6.80	34	5.59	37	5.81
	Dark Skin	39	5.64	34	5.06	44	4.95
Male							
	Light Skin	22	5.91	17	5.12	20	4.50
	Dark Skin	20	6.05	32	4.44	17	5.76

Note. Response values range from 0 to 10, with higher values indicating greater probability.

Table 4.6b

ANCOVA results for the probability of understanding target.

Variable	DF	F Value	*p*	η^2
Sex	1	2.65	.10	.18
Skin	1	4.43	.04	.30
Veil	1	7.93	.005	.53

Note. Model F (3, 347) = 4.94, p = .002, R^2 = .04; η^2 do not sum to 1.0 due to rounding.

Table 4.7a shows mean responses to, "Estimate the probability that I would discover that her plans for the future are similar to my own." Overall, participants did not think that their future plans were similar to the target's plans. Most of the averages fell below the midpoint of the response scale (5.0 or 50%). The highest probability estimate of similarity was given by female participants to the light skinned target with no veil (M = 56.6%) and the lowest was given by male participants to the dark skinned target wearing the hijab (M = 33.4%). Table 4.7b shows the results of the statistical analysis of these responses. There were no significant interaction effects, and the only significant main effect was participant sex ($F(1,349) = 16.27$, $p < .0001$). Male participants indicated a significantly lower probability that the target's future plans were similar to their own (M = 37.3%) than female participants (M = 47.3%), independent of skin tone or veil.

Table 4.7a

Mean responses to the probability that plans for the future are similar.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	5.66	34	4.29	37	4.46
	Dark Skin	39	4.82	34	5.12	44	4.16
Male							
	Light Skin	22	3.77	17	4.24	20	3.50
	Dark Skin	20	3.65	32	3.34	17	4.24

Note. Response values range from 0 to 10, with higher values indicating greater probability.

Table 4.7b

ANCOVA results for the probability that plans for the future are similar.

Variable	DF	F Value	*p*	η^2
Sex	1	16.27	< .0001	.80
Skin	1	0.36	.55	.02
Veil	1	3.64	.06	.18

Note. Model $F(3, 347) = 6.59$, $p = .0002$, $R^2 = .05$

Table 4.8a shows mean responses to the Similarity Index, which is a measure comprised of participants' ratings of ten characteristics as either stronger in their personality or the target's. Participants rated the targets as relatively similar to themselves. All of the averages were above the midpoint of the scale (1.5) that ranged from 0 (stronger in my/her personality) to 3 (similar in both our personalities). Most of the averages were above 2. The highest Similarity Index score was given by female participants to the light skinned target wearing a niqab (M = 2.36) and the lowest was given by male participants to the dark skinned target with no veil (M = 1.84). Table 4.8b

shows the results of the statistical analysis of these responses. There were no significant interaction effects, but all three of the main effects were statistically significant: skin tone ($F(1, 349) = 4.30$, $p = .04$), veil ($F(1, 349) = 7.65$, $p = .006$), and participant sex ($F(1, 349) = 4.40$, $p = .04$). Female participants were more likely to rate the targets as more similar to their personality (M = 2.26) than male participants (M = 2.11), independent of skin tone or veil. Participants rated the light skinned targets as more similar to their personality (M = 2.27) than dark skinned targets (M = 2.14), independent of veil or participant sex. As veil coverage increased so did participants' reports of similarity ($b = 0.11$), independent of skin tone or participant sex.

Table 4.8a

Mean responses to the Similarity Index.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	2.22	34	2.34	37	2.36
	Dark Skin	39	2.08	34	2.29	44	2.26
Male							
	Light Skin	22	2.06	17	2.35	20	2.26
	Dark Skin	20	1.84	32	1.98	17	2.31

Note. Response values range from 0 to 3, with higher values indicating greater similarity.

Table 4.8b

ANCOVA results for Similarity Index.

Variable	DF	F Value	*p*	η^2
Sex	1	4.40	.04	.27
Skin	1	4.30	.04	.26
Veil	1	7.65	.006	.47

Note. Model F (3, 347) = 5.63, p = .0009, R^2 = .05

Summary of Similarity. While participants did not express much similarity with the target's social background or future plans, they expressed more similarity in personality characteristics. When participants' sex had a statistically significant effect, female participants were more likely to express similarity with the targets than male participants. In contrast to the results for attraction, targets' veil coverage had an impact on similarity. When considering the target's social background and understanding her personality, the effect for veil was as hypothesized. As veil coverage increased, participants' perceptions of similarity decreased. For the Similarity Index, the impact of veil was in an unexpected direction: as veil coverage increased, Similarity Index scores increased. Skin tone also had an impact on similarity. In terms of understanding and personality, participants expressed more similarity with light skinned targets than dark skinned targets.

Social Distance

Table 4.9a shows mean responses to, "Please select the highest degree of association you would desire to have with someone like her." This measure of social distance, asked participants to indicate the level of contact they would like with the target. Responses ranged from 1 = to marry into my family to 7 = to keep out of my

country. Mean responses generally ranged between a value of 3 (corresponding to having as a next door neighbor) and 4 (working in the same office). Remarkably, participants, on average, did not want any of the targets to be best friends (2.0) or to marry into their families (1.0). The highest social distance was given by male participants to the dark skinned target wearing a niqab (M = 4.18) and the lowest social distance was given by female participants to the dark skinned target wearing the hijab (M = 3.18). Table 4.9b shows the results of statistical analysis of these responses. There were no significant interaction effects, and the only significant main effect was participant sex ($F(1,347) = 6.89$, $p = .009$). Male participants indicated significantly more social distance (M = 3.87) than female participants (M = 3.47), independent of skin tone or veil.

Table 4.9a

Mean responses for social distance.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	34	3.44	34	3.44	37	3.32
	Dark Skin	39	3.85	34	3.18	44	3.52
Male							
	Light Skin	21	3.95	17	3.71	20	3.75
	Dark Skin	20	3.60	32	4.00	17	4.18

Note. Response values range from 1 to 7, with higher values indicating greater social distance.

Table 4.9b

ANCOVA results for social distance.

Variable	DF	F Value	*p*	η^2
Sex	1	6.89	.009	.88
Skin	1	0.73	.39	.09
Veil	1	0.24	.62	.03

Note. Model F(3, 345) = 2.68, p = .05, R^2 = .02

Moral Outrage

Table 4.10a shows mean responses to the Moral Outrage index. Moral Outrage was measured by asking participants to report their reaction to the target. Responses to nine bipolar judgments (i.e. not at all offensive – highly offensive) were averaged to create an index score, where higher values indicate greater moral outrage. Overall, participants did not express a great deal of moral outrage toward the targets. Mean responses for each condition fell below the scale mid-point (4.0). The highest mean Moral Outrage score was given by male participants to the light skinned target with no veil (M = 3.76) and the lowest was given by female participants to the dark skinned target wearing the hijab (M = 3.38). Table 4.10b shows the results of the statistical analysis of these responses. There were no significant interaction effects, and the only significant main effect was participant sex ($F(1,349) = 8.41$, p = .004). Male participants indicated significantly higher moral outrage toward the targets (M = 3.63) than female participants (M = 3.47), independent of skin tone or veil.

Table 4.10a

Mean responses to the Moral Outrage Index.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	3.47	34	3.36	37	3.50
	Dark Skin	39	3.52	34	3.38	44	3.54
Male							
	Light Skin	22	3.76	17	3.60	20	3.74
	Dark Skin	20	3.61	32	3.53	17	3.55

Note. Response values range from 1 to 7, with higher values indicating greater moral outrage.

Table 4.10b

ANCOVA results for Moral Outrage.

Variable	DF	F Value	*p*	η^2
Sex	1	8.41	.004	.86
Skin	1	0.31	.58	.03
Veil	1	0.02	.90	.11

Note. Model F (3, 347) = 2.89, p = .04, R^2 = .02

Stereotype Content

Competence. Table 4.11a shows mean responses to the Competence stereotype items. Competence was measured using an average of participants' ratings of the targets competence, confidence, independence, competitiveness, and intelligence. Overall, participants rated the targets as not very competent. Mean responses did not generally exceed the scale mid-point value of 3.0, and those means that did exceed 3.0 were only for the no veil condition. The highest competence rating was given by female

participants to the light skinned target with no veil (M = 3.65) and the lowest was given by male participants to the light skinned target wearing the niqab (M = 2.03). Table 4.11b shows the results of the statistical analysis of these responses. There were no significant interaction effects, and the only significant main effect was veil ($F(1,346) = 41.61$, $p < .0001$). Independent of participant sex and target skin tone, the greater the veil coverage, the lower the rating of competence ($b = -0.63$). This relationship was as hypothesized.

Table 4.11a

Mean responses to the Competence stereotype items.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	3.65	34	2.59	37	2.22
	Dark Skin	39	3.28	34	2.41	44	2.18
Male							
	Light Skin	22	3.43	17	2.45	20	2.03
	Dark Skin	20	3.29	30	2.63	17	2.20

Note. Response values range from 1 to 5, with higher values indicating greater competence.

Table 4.11b

ANCOVA for the Competence stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.31	.58	.003
Skin	1	1.21	.27	.01
Veil	1	123.43	< .0001	.99

Note. Model $F(3, 345) = 41.61$, $p < .0001$, $R^2 = .27$

Warmth. Table 4.12a shows mean responses to the Warmth stereotype items. Warmth was measured using an average of participants' ratings of the targets tolerance, warmth, good-naturedness, and sincerity. Overall, participants rated the targets as not very warm. Only three out of the twelve mean condition responses exceeded the scale mid-point value of 3.0. The highest warmth rating was given by female participants to the light skinned target with no veil (M = 3.31) and the lowest was given by female participants to the dark skinned target wearing the niqab (M = 2.34). Table 4.12b shows the results of statistical analysis of these responses. There were no significant interaction effects, and the only significant main effect was veil ($F(1,347) = 29.27$, $p < .0001$). Independent of participant sex and target skin tone, the greater the veil coverage, the lower the rating of warmth ($b = -0.34$). This relationship supported my hypotheses.

Table 4.12a

Mean responses to the Warmth stereotype items.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	3.31	34	2.85	37	2.39
	Dark Skin	39	2.84	34	2.75	44	2.34
Male							
	Light Skin	22	3.18	17	2.69	20	2.36
	Dark Skin	20	2.96	30	3.05	17	2.53

Note. Response values range from 1 to 5, with higher values indicating greater warmth.

Table 2.12b

ANCOVA for the Warmth stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.59	.44	.02
Skin	1	0.74	.39	.02
Veil	1	29.27	< .0001	.96

Note. Model F (3, 345) = 10.35, p < .0001, R^2 = .08

Status. Table 4.13a shows mean responses to the Status stereotype items. Status was measured using an average of participants' ratings of how they think society views the target in terms of prestigious jobs, economic success and education. Overall, participants did not rate the targets as having particularly high social status. Only three out of the twelve mean condition responses exceeded the scale mid-point value of 3.0; these means were all in the no veil condition. The highest status rating was given by female participants to the light skinned target with no veil (M = 3.80) and the lowest was given by female participants to the dark skinned target wearing the niqab (M = 2.20). Table 4.13b shows the results of the statistical analysis of these responses. In this model, there were significant main effects for skin tone $F(1, 346) = 5.60$, $p = .02$) and for veil (1, 346) = 83.17, $p < .0001$), as well as the interaction effect between these two factors ($F(1, 346) = 13.81$, $p = .0002$). Participants rated light skinned targets as higher in social status (M = 2.85) than dark skinned targets (M = 2.63). As veil coverage increased participants' ratings of target's status decreased ($b = -0.30$). This was true for both light and dark skinned targets, but inspection of the interaction showed that the downward slope was significantly steeper when target's skin tone was light ($b = -.41$). These relationships partially supported my hypotheses.

Table 4.13a

Mean responses to the Status stereotype items.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	3.80	34	2.57	37	2.28
	Dark Skin	38	3.08	33	2.68	44	2.30
Male							
	Light Skin	22	3.48	17	2.69	20	2.20
	Dark Skin	20	2.70	31	2.54	17	2.48

Note. Response values range from 1 to 5, with higher values indicating greater status.

Table 4.13b

ANCOVA results for the Status stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.36	.24	.01
Skin	1	5.60	.02	.05
Veil	1	83.17	< .0001	.80
Skin*Veil	1	13.81	.0002	.13

Note. Model $F(4, 343) = 25.56$, $p < .0001$, $R^2 = .23$; η^2 do not sum to 1.0 due to rounding.

Competition. Table 4.14a shows mean responses to the Competition stereotype items. Competition was measured using an average of participants' ratings of how they think society views the target in terms of special treatment, power, and resources. As shown in the table, all of the mean competition scores above the mid-point of the scale (3.0) were either for a veiled or dark skinned target. The highest competition rating was given by male participants to the light skinned target wearing a hijab (M = 3.37) and the lowest was given by male participants to the light skinned target with no veil (M = 2.26).

Table 4.14b shows the results of the statistical analysis of these responses. In this model, there was a statistically significant main effect of veil $F(1, 346) = 12.17$, $p = .0005$), plus a significant skin tone X veil interaction effect $F(1, 346) = 8.20$, $p = .005$). Overall, as veil coverage increased participants' ratings of perceived competition with the targets also increased ($b = 0.04$). This was true for both light and dark skinned targets, but inspection of the interaction showed that the upward slope was steeper when target's skin tone was light ($b = 0.40$). These relationships partially supported my hypotheses.

Table 4.14a

Mean responses to the Competition stereotype items.

		Target Image					
Participant		No Veil		Hijab		Niqab	
Female		N	M	N	M	N	M
	Light Skin	35	2.38	34	3.20	37	3.22
	Dark Skin	38	2.75	33	2.98	44	2.84
Male							
	Light Skin	22	2.26	17	3.37	20	3.22
	Dark Skin	20	3.10	31	3.08	17	3.24

Note. Response values range from 1 to 5, with higher values indicating greater competition.

Table 4.14b

ANCOVA results for the Competition stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.42	.23	.07
Skin	1	0.06	.81	.003
Veil	1	12.17	.0005	.56
Skin*Veil	1	8.20	.005	.38

Note. Model $F(4, 343) = 5.30$, $p = .0004$, $R^2 = .06$; η^2 do not sum to 1.0 due to rounding.

Summary of Stereotype Content. Veiling had a significant impact on stereotype content. Veiled targets were viewed as low in competence, status and warmth. Veiled targets were rated as high in terms of competition. Relative to targets with no veil, the veiled targets fell into the "low, low" quadrant of the stereotype content model; participants viewed them as social loafers deserving of contempt (Fiske et al, 2002).

Islamophobia

To gain a deeper understanding of the source of social bias and to further examine some of the unexpected findings from the ANCOVAs, I added covariates that measure participants' degree of Islamophobia to each of the best-fitting models as described above. Islamophobia, or a fear of Muslims, was measured using the following previously established subscales: Islamophobia – AB, Islamophobia – CG, and Islamoprejudice. Since Islamophobia should have no relevance toward participants' responses to targets with no veil, participants' level of Islamophobia should have no impact on ratings of liking, similarity, moral outrage, social distance and stereotype content in the no veil conditions. On the other hand, Islamophobia should have significant relevance on participants' responses to targets wearing the hijab or niqab. In these cases, participants' level of Islamophobia should impact their ratings of liking, similarity, moral outrage, social distance, and stereotype content. Participants with higher Islamophobia should indicate more social bias toward veiled targets than participants with lower Islamophobia. In other words, by adding measures of Islamophobia as covariates, it is possible to test whether, and gauge how much, fear of Muslims can explain reactions toward women who veil, relative to targets with no veil (baseline or control condition). Furthermore, by using three different measures of Islamophobia, it is possible to test which measure best

explains social bias toward women who veil. The purpose of the following analyses is to examine the veil*Islamophobia interaction effect. In the plots of the interaction effects, I use the values of one standard deviation above and one standard deviation below the mean to indicate "high" and "low" Islamophobia.

Attraction and Islamophobia. Tables 4.15a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to, "Estimate the probability that you would like and become friends with her." There was the expected statistically significant interaction with veil only for Islamophobia – AB ($F(1, 347) = 5.17$, $p = .02$). Figure 4.1 shows a plot of this interaction. When responding to targets with no veil, the probability of liking and becoming friends with the target was relatively unaffected by level of Islamophobia – AB. However, when responding to targets wearing the hijab, and especially the niqab, the probability of liking and becoming friends with the target decreased sharply as Islamophobia – AB increased. For all levels of veil, as Islamophobia – AB increased, the probability that participants would like and become friends with the target decreased. This downward slope was steepest for the niqab condition and more gradual for the no veil condition. There were no significant interaction effects between veil and the other two measures of Islamophobia. Islamophobia – CG ($b = -0.06$) and Islamoprejudice ($b = -0.11$) were statistically significant predictors. In both cases, independent of all other variables, as Islamophobia increased, participants' estimated probability that they would like and become friends with the target decreased, no matter what she looked like.

For all three measures of Islamophobia, the addition of the covariate increased the strength of the model, and in all three cases, the model R^2 more than tripled (.03 to

between .11 and .16). The addition of Islamophobia – AB, as a covariate, resulted in the strongest model ($R^2 = .16$). For all three models, the Islamophobia measure was the main predictor of the variation in participants' estimated probability that they would like and become friends with the target.

Table 4.15a

Islamophobia - AB ANCOVA results for the probability of liking and becoming friends with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	0.81	.37	.01
Skin	1	1.62	.20	.03
Veil	1	3.58	.06	.06
Islamophobia - AB	1	49.62	<.0001	.82
Veil*Islamophobia - AB	1	5.17	.02	.09

Note. Model $F(5, 343) = 13.40$, $p < .0001$, $R^2 = .16$; η^2 do not sum to 1.0 due to rounding.

Table 4.15b

Islamophobia - CG ANCOVA results for the probability of liking and becoming friends with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	2.09	.15	.05
Skin	1	1.47	.23	.04
Veil	1	0.17	.68	.004
Islamophobia - CG	1	34.81	<.0001	.90

Note. Model $F(4, 344) = 10.83$, $p < .0001$, $R^2 = .11$; η^2 do not sum to 1.0 due to rounding.

Table 4.15c

Islamoprejudice ANCOVA results for the probability of liking and becoming friends with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	2.79	.10	.06
Skin	1	1.55	.21	.03
Veil	1	0.58	.45	.01
Islamoprejudice	1	41.50	<.0001	.89

Note. Model F(4, 344) = 12.54, p < .0001, R^2 = .13; η^2 do not sum to 1.0 due to rounding.

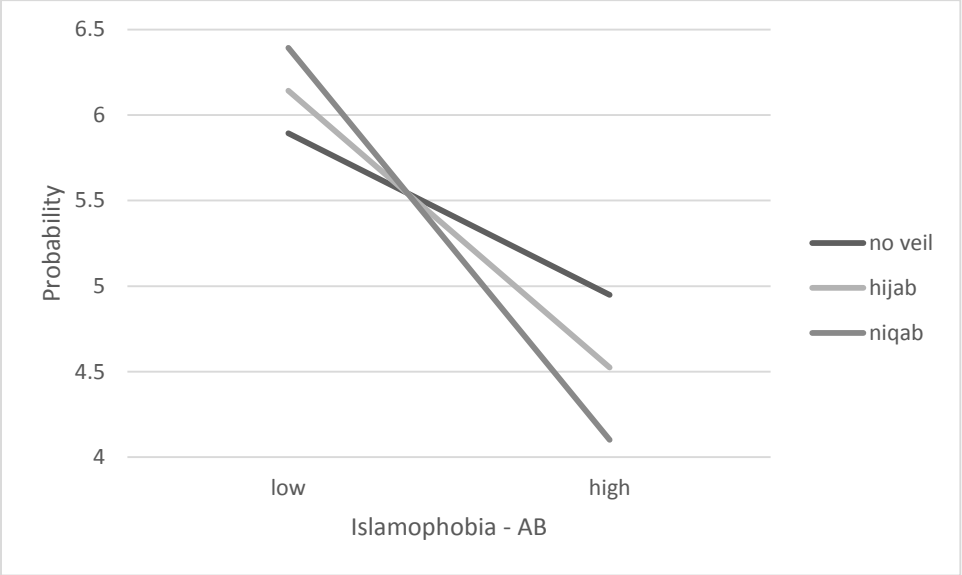

Figure 4.1. Relationship between Islamophobia - AB and the probability of liking and becoming friends with target by level of veil

Tables 4.16a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to, "Estimate the probability that you would enjoy spending time with her." As seen in the tables, the expected veil*Islamophobia interaction was not statistically significant in any of these models. Independent of all other variables, as Islamophobia increased, participants indicated less likelihood of enjoying spending with the target (Islamophobia – AB (*b* = -0.14), Islamophobia – CG (*b* = -0.11), and Islamoprejudice (*b* = -1.60)). In all cases, adding a measure of Islamophobia

greatly increased the overall strength of the model (from $R^2 = .02$) and the addition of Islamophobia – AB resulted in the strongest model ($R^2 = .17$). In each model, the measure of Islamophobia was the main predictor of the variation in participants' estimated probability that they would enjoy spending time with the target.

Table 4.16a

Islamophobia - AB ANCOVA results for the probability of enjoying spending time with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	0.89	.35	.01
Skin	1	0.01	.94	.0001
Veil	1	1.39	.24	.02
Islamophobia - AB	1	63.52	<.0001	.97

Note. Model $F(4, 344) = 18.00$, $p < .0001$, $R^2 = .17$; η^2 do not sum to 1.0 due to rounding.

Table 4.16b

Islamophobia - CG ANCOVA results for the probability of enjoying spending time with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	2.60	.11	.06
Skin	1	0.01	.94	.0001
Veil	1	1.43	.23	.03
Islamophobia - CG	1	42.20	<.0001	.91

Note. Model $F(4, 344) = 12.56$, $p < .0001$, $R^2 = .13$; η^2 do not sum to 1.0 due to rounding.

Table 4.16c

Islamoprejudice ANCOVA results for the probability of enjoying spending time with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	3.38	.07	.06
Skin	1	0.01	.93	.0001
Veil	1	0.70	.40	.01
Islamoprejudice	1	56.15	<.0001	.93

Note. Model $F(4, 344) = 16.12$, $p < .0001$, $R^2 = .16$; η^2 do not sum to 1.0 due to rounding.

Tables 4.17 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to, "Estimate the probability that you would work with her on some project of mutual interest." There was the expected statistically significant interaction with veil for Islamophobia – AB ($F(1, 347) = 8.83$, $p = .003$) and Islamoprejudice ($F(1, 347) = 4.97$, $p = .03$). Figures 4.2 and 4.3 show plots of these interactions. For targets with no veil, Islamophobia had very little impact on the likelihood of working together. However, for veiled targets, the likelihood of working together decreased significantly as Islamophobia increased. The downward slope was especially steep for targets wearing the niqab. In the case of Islamophobia – CG, there was no interaction with veil. As Islamophobia – CG increased, participants indicated that they would be less likely to work with the target ($b = -0.08$), no matter what she looked like.

Table 4.17a

Islamophobia - AB ANCOVA results for the probability of working with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	0.00	.98	.00002
Skin	1	0.00	.95	.00009
Veil	1	7.35	.01	.16
Islamophobia - AB	1	30.33	<.0001	.65
Veil*Islamophobia - AB	1	8.83	.003	.19

Note. Model $F(5, 343) = 8.76$, $p < .0001$, $R^2 = .11$; η^2 do not sum to 1.0 due to rounding.

Table 4.17b

Islamophobia - CG ANCOVA results for the probability of working with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	0.14	.71	.006
Skin	1	0.00	.98	.00002
Veil	1	0.00	.98	.00002
Islamophobia - CG	1	23.57	<.0001	.99

Note. Model $F(4, 344) = 6.25$, $p < .0001$, $R^2 = .07$; η^2 do not sum to 1.0 due to rounding.

Table 4.17c

Islamoprejudice ANCOVA results for the probability of working with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	0.54	.46	.02
Skin	1	0.02	.90	.006
Veil	1	4.55	.03	.16
Islamoprejudice	1	18.28	<.0001	.64
Veil*Islamoprejudice	1	4.97	.03	.18

Note. Model $F(5, 343) = 5.35$, $p < .0001$, $R^2 = .07$; η^2 do not sum to 1.0 due to rounding.

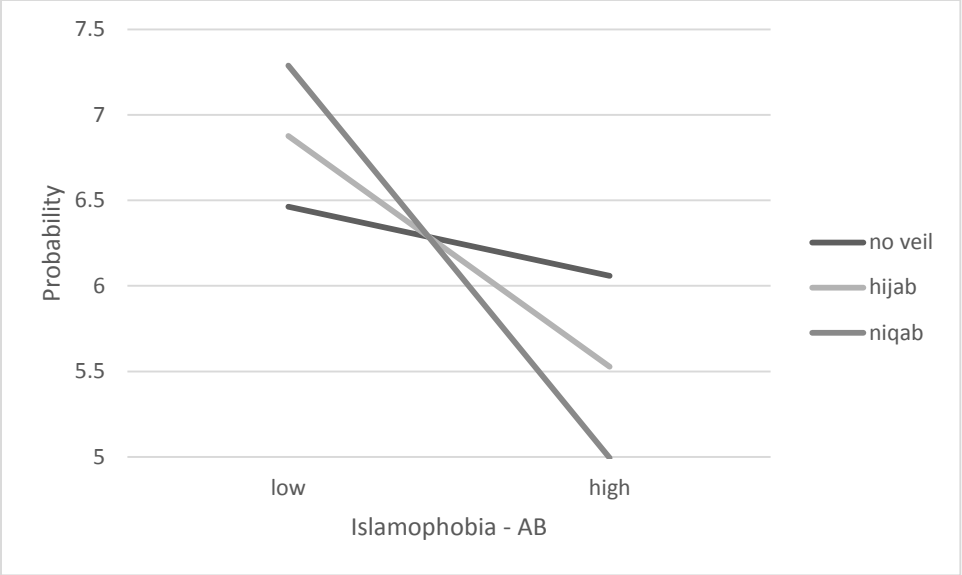

Figure 4.2. Relationship between Islamophobia - AB and the probability of working with the target by level of veil

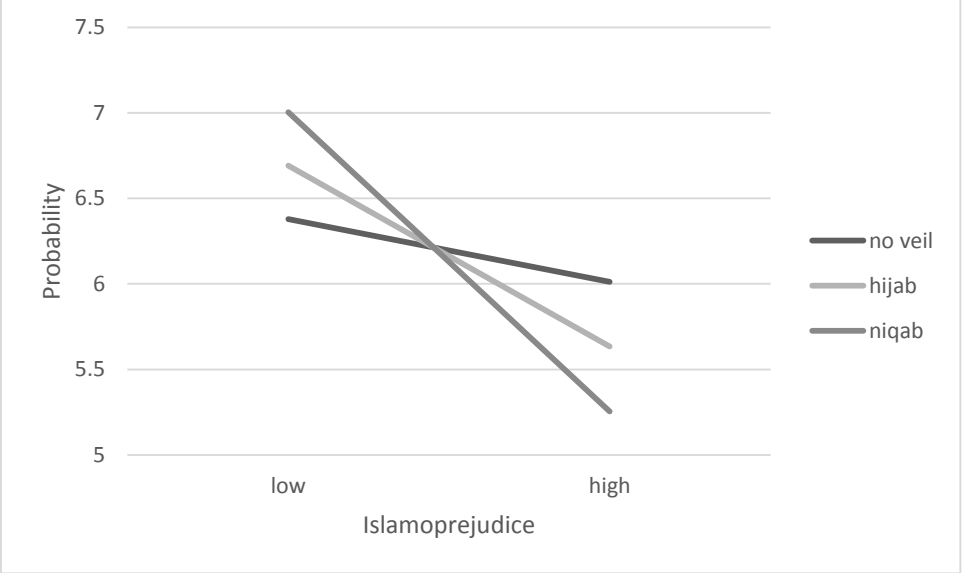

Figure 4.3. Relationship between Islamoprejudice and the probability of working with the target by level of veil

Adding a measure of Islamophobia, as a covariate, increased the overall strength of the models (from $R^2 = .004$) and the strongest model was the one that included Islamophobia

– AB (R^2 = .11). For all three models, Islamophobia was the main predictor of the variation in participants' estimated probability that they would work with the target.

Tables 4.18 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to the Attraction Index. There was the expected statistically significant interaction with veil for Islamophobia – AB ($F(1, 347) = 6.39$, p = .01). Figure 4.4 shows a plot of this interaction. Level of Islamophobia – AB had no influence on the Attraction Index for targets with no veil. For veiled targets, Attraction Index scores decreased as Islamophobia – AB scores increased. The downward slope was steepest for targets wearing the niqab. There were no statistically significant interaction effects with veil for Islamophobia – CG and Islamoprejudice. In both cases, increases Islamophobia – CG (b = -0.02) and Islamoprejudice (b = -0.37) decreased Attraction Index scores, no matter what the target looked like.

Table 4.18a

Islamophobia - AB ANCOVA results for the Attraction Index.

Variable	DF	F Value	*p*	η^2
Sex	1	5.08	.02	.11
Skin	1	0.00	.99	.000001
Veil	1	14.87	.0001	.31
Islamophobia - AB	1	21.72	<.0001	.45
Veil*Islamophobia – AB	1	6.39	.01	.13

Note. Model $F(5, 344) = 11.06$, $p < .0001$, $R^2 = .14$; η^2 do not sum to 1.0 due to rounding.

Table 4.18b

Islamophobia – CG ANCOVA results for the Attraction Index.

Variable	DF	F Value	*p*	η^2
Sex	1	6.49	.01	.16
Skin	1	0.00	.97	.00004
Veil	1	14.59	.0002	.36
Islamophobia - CG	1	19.66	<.0001	.48

Note. Model F(4, 345) = 10.99, p < .0001, R^2 = .11; η^2 do not sum to 1.0 due to rounding.

Table 4.18c

Islamoprejudice ANCOVA results for the Attraction Index.

Variable	DF	F Value	*p*	η^2
Sex	1	7.11	.01	.13
Skin	1	0.00	.95	.00007
Veil	1	13.22	.0003	.25
Islamoprejudice	1	33.28	<.0001	.62

Note. Model F(4, 345) = 14.63, p < .0001, R^2 = .14; η^2 do not sum to 1.0 due to rounding.

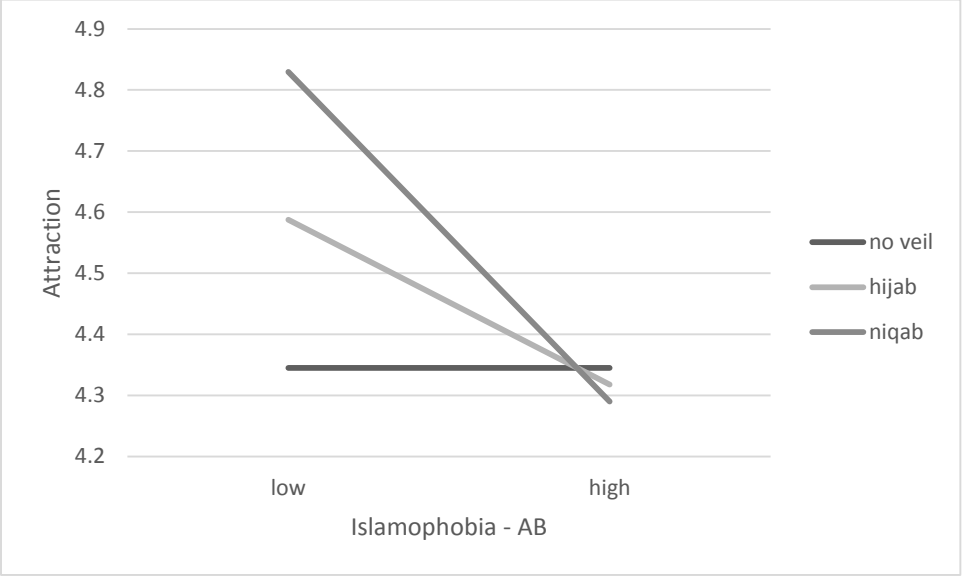

Figure 4.4. Relationship between Islamophobia - AB and the Attraction Index by level of veil

Participant sex remained statistically significant in all of the models. When controlling for Islamophobia, female participants rated the targets as significantly more attractive (M = 4.49) than male participants (M = 4.24). Adding a measure of Islamophobia increased the overall strength of the model (from $R^2 = .06$) and the strongest models included Islamophobia – AB and Islamoprejudice ($R^2 = .14$). For all three models, the measure of Islamophobia was the main predictor of the variation in participants' Attraction Index scores.

***Summary of Attraction and Islamophobia*.** Islamophobia – AB provided a fairly good explanation for participants' attraction toward targets wearing a veil. For three of the four attraction variables (liking, working together, and the Attraction Index) Islamophobia – AB resulted in the expected interaction with veil: Islamophobia – AB had little impact on participants' ratings of the target with no veil, however Islamophobia - AB substantially decreased participants' attraction ratings of targets wearing the hijab and, even more so, targets wearing the niqab. These results suggest that, in terms of attraction, social bias toward women who veil is best predicted the affective/behavioral aspects of Islamophobia. The addition of Islamoprejudice resulted in the expected interaction with veil only for working together. Islamophobia – CG did not interact with veil for any of the attraction variables. In most instances, as Islamophobia – CG increased, attractiveness ratings decreased, no matter what the target looked like.

Similarity and Islamophobia. Tables 4.19 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to, "Estimate the probability that she would turn out to come from the same social background as myself." There was not a statistically significant veil*Islamophobia interaction for any of the

models. The addition of the Islamophobia covariates did not substantially change the results found in the previous analysis of this variable. The measures of Islamophobia were statistically significant in all of the models. Independent of all other variables, as Islamophobia increased, participants indicated that they would want to spend less time with the target, no matter what she looked like (Islamophobia – AB (*b* = -0.03), and Islamophobia – CG (*b* = -0.04), Islamoprejudice (*b* = -0.27)). Adding a measure of Islamophobia did not really improve the overall strength of the model (R^2 went from .24 to .25). In each model, the main effect of veil was the main predictor of variation in coming from the same background as the target.

Table 4.19a

Islamophobia - AB ANCOVA results for the probability of coming from the same background.

Variable	DF	F Value	*p*	η^2
Sex	1	2.95	.09	.03
Skin	1	2.94	.09	.03
Veil	1	100.15	<.0001	.88
Veil*Skin	1	4.77	.03	.04
Islamophobia - AB	1	2.45	.12	.02

Note. Model $F(5, 344) = 22.91$, $p < .0001$, $R^2 = .25$

Table 4.19b

Islamophobia – CG ANCOVA results for the probability of coming from the same background.

Variable	DF	F Value	*p*	η^2
Sex	1	3.07	.08	.03
Skin	1	2.83	.09	.02
Veil	1	99.44	<.0001	.86
Veil*Skin	1	5.56	.02	.05
Islamophobia - CG	1	4.52	.03	.04

Note. Model $F(5, 344) = 23.46$, $p < .0001$, $R^2 = .25$

Table 4.19c

Islamoprejudice ANCOVA results for the probability of coming from the same background.

Variable	DF	F Value	*p*	η^2
Sex	1	3.83	.05	.03
Skin	1	2.97	.09	.03
Veil	1	101.51	<.0001	.89
Veil*Skin	1	4.67	.03	.04
Islamophobia	1	1.42	.23	.01

Note. Model $F(5, 344) = 22.64$, $p < .0001$, $R^2 = .25$

Tables 4.20 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to, "Estimate the probability that you would be able to understand her personality fairly well." For all three models, there was a statistically significant interaction between the Islamophobia measure and veil. Figures 4.5, 4.6, and 4.7 show plots of these interactions. For veiled targets, as Islamophobia increased, participants were less likely to understand the target's personality. This decrease was

steepest for the target wearing the niqab. Islamophobia had little impact on understanding for the target with no veil.

Table 4.20a

Islamophobia - AB ANCOVA Results for the probability of understanding target.

Variable	DF	F Value	*p*	η^2
Sex	1	0.00	.99	.000004
Skin	1	3.93	.05	.04
Veil	1	6.70	.01	.08
Islamophobia - AB	1	60.61	<.0001	.69
Veil*Islamophobia - AB	1	16.26	<.0001	.19

Note. Model $F(5, 344) = 20.04$, $p < .0001$, $R^2 = .23$; η^2 do not sum to 1.0 due to rounding.

Table 4.20b

Islamophobia - CG ANCOVA Results for the probability of understanding target.

Variable	DF	F Value	*p*	η^2
Sex	1	0.47	.49	.01
Skin	1	2.84	.09	.06
Veil	1	1.25	.26	.03
Islamophobia - CG	1	37.87	<.0001	.78
Veil*Islamophobia - CG	1	6.12	.01	.13

Note. Model $F(5, 344) = 13.42$, $p < .0001$, $R^2 = .16$; η^2 do not sum to 1.0 due to rounding.

Table 4.20c

Islamoprejudice ANCOVA Results for the probability of understanding target.

Variable	DF	F Value	*p*	η^2
Sex	1	1.1	.30	.02
Skin	1	3.99	.05	.07
Veil	1	6.52	.01	.11
Islamoprejudice	1	35.73	<.0001	.62
Veil*Islamoprejudice	1	10.24	.002	.18

Note. Model $F(5, 344) = 13.24$, $p < .0001$, $R^2 = .16$

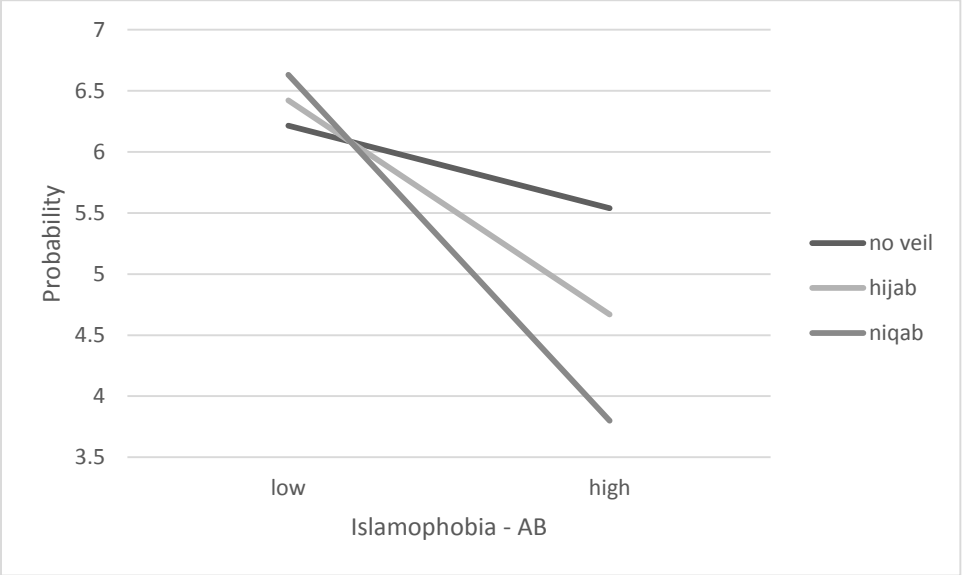

Figure 4.5. Relationship between Islamophobia - AB and the probability of understanding the target by level of veil

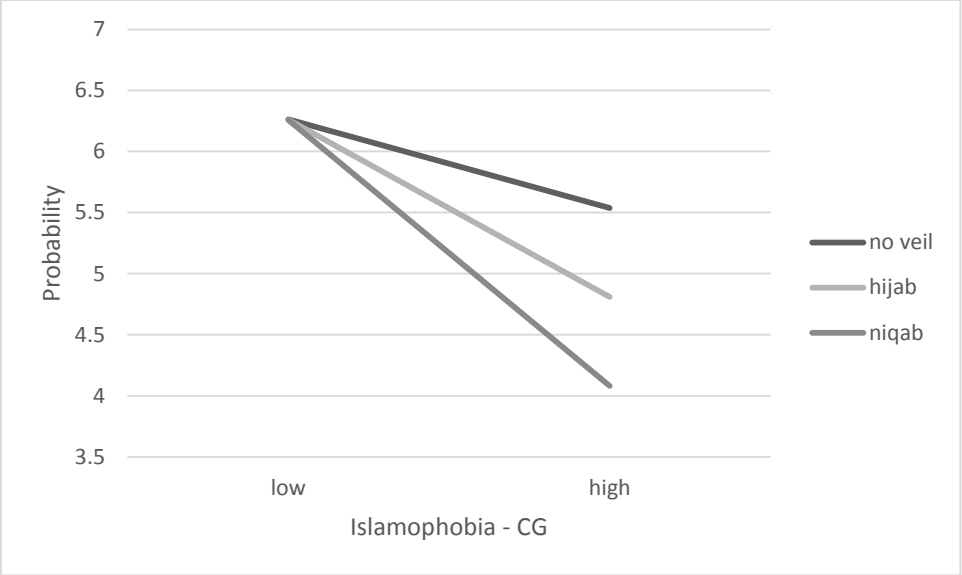

Figure 4.6. Relationship between Islamophobia - CG and the probability of understanding the target by level of veil

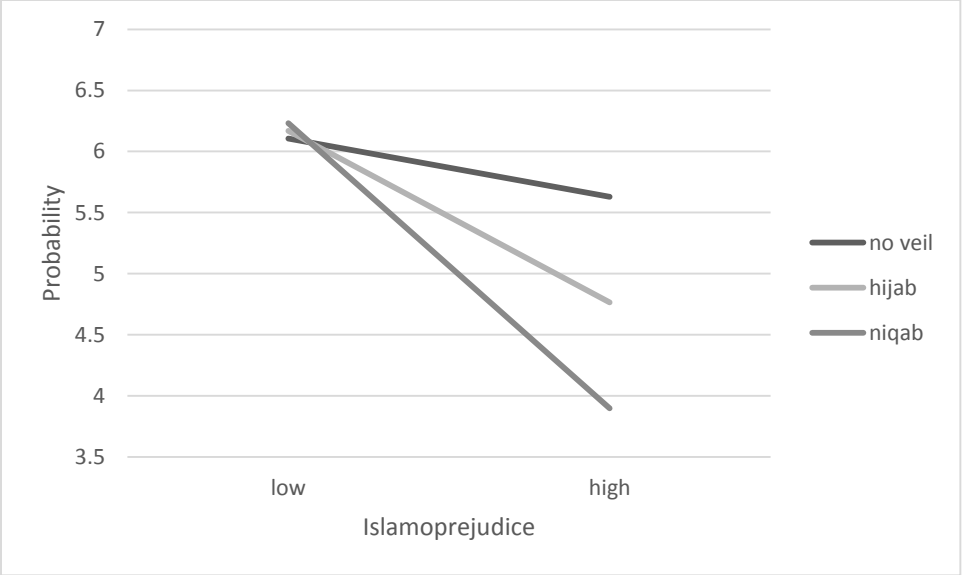

Figure 4.7. Relationship between Islamoprejudice and the probability of understanding the target by level of veil

Adding a measure of Islamophobia greatly increased the overall strength of the model (from $R^2 = .04$), and the strongest model included Islamophobia – AB ($R^2 = .23$). For

each model, the measure of Islamophobia was the main predictor of the variation in the probability of understanding the target's personality.

Tables 4.21 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to, "Estimate the probability that you would discover that her plans for the future are similar to your own." For the model with Islamophobia - AB, there was a statistically significant interaction with veil. Figure 4.8 shows a plot of this interaction. As hypothesized, Islamophobia – AB had little impact on participants' responses to the target with no veil, but negatively impacted responses to targets wearing veils. This decrease in ratings was steepest for the niqab condition. There were no statistically significant interaction with veil for Islamophobia – CG and Islamoprejudice. Islamophobia – CG (b = -0.08) and Islamoprejudice (b = -1.17) had statistically significant main effects on ratings of sharing future plans with the target. In both cases, as Islamophobia increased, participants indicated that they would be less likely to share future plans with the target, no matter what she looked like.

Table 4.21a

Islamophobia – AB ANCOVA results for the probability that plans for the future are similar.

Variable	DF	F Value	p	η^2
Sex	1	8.21	.004	.15
Skin	1	0.15	.70	.003
Veil	1	3.83	.05	.07
Islamophobia - AB	1	32.42	<.0001	.61
Veil*Islamophobia - AB	1	8.40	.004	.16

Note. Model $F(5, 344) = 13.04$, $p < .0001$, $R^2 = .16$; η^2 do not sum to 1.0 due to rounding.

Table 4.21b

Islamophobia – CG ANCOVA results for the probability that plans for the future are similar.

Variable	DF	F Value	*p*	η^2
Sex	1	10.47	.001	.27
Skin	1	0.11	.74	.003
Veil	1	2.68	.10	.07
Islamophobia - CG	1	26.12	<.0001	.66

Note. Model F(4, 345) = 11.61, p < .0001, R^2 = .12; η^2 do not sum to 1.0 due to rounding.

Table 4.21c

Islamoprejudice ANCOVA results for the probability that plans for the future are similar.

Variable	DF	F Value	*p*	η^2
Sex	1	11.98	.0006	.26
Skin	1	0.12	.72	.003
Veil	1	3.81	.05	.08
Islamoprejudice	1	29.4	<.0001	.65

Note. Model F(4, 345) = 12.48, p < .0001, R^2 = .13; η^2 do not sum to 1.0 due to rounding.

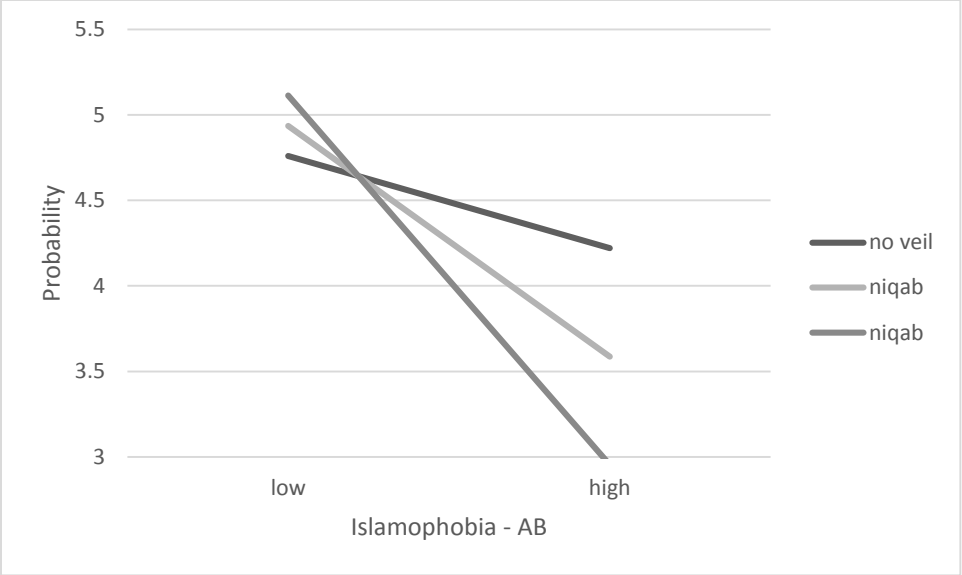

Figure 4.8. Relationship between Islamophobia - AB and the probability that future plans are similar by level of veil

Adding a measure of Islamophobia greatly increased the overall strength of the model (from $R^2 = .05$), and the strongest model included Islamophobia – AB ($R^2 = .16$). For each model, Islamophobia was the main predictor of the variation in the sharing future plans with the target.

Tables 4.22 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to the Similarity Index. There were no statistically significant veil*Islamophobia interactions in any of these models. The measures of Islamophobia had statistically significant main effects in all of the models. Independent of all other variables, as Islamophobia increased, participants' estimates of personality similarities decreased, no matter what the target looked like (Islamophobia – AB (b = -0.02), and Islamophobia – CG (b = -0.01), Islamoprejudice (b = -0.23)). In all cases, adding a measure of Islamophobia slightly improved the overall strength of the model (from $R^2 = .05$), and the strongest model included Islamoprejudice ($R^2 = .09$). In each

model, the measure of Islamophobia was the main predictor of variance in Similarity Index scores.

Table 4.22a

Islamophobia – AB ANCOVA results for the Similarity Index.

Variable	DF	F Value	*p*	η^2
Sex	1	1.73	.19	.06
Skin	1	3.92	.05	.14
Veil	1	8.91	.003	.32
Islamophobia	1	12.98	.0004	.47

Note. Model F(4, 345) = 7.63, p < .0001, R^2 = .08; η^2 do not sum to 1.0 due to rounding.

Table 4.22b

Islamophobia – CG ANCOVA results for the Similarity Index.

Variable	DF	F Value	*p*	η^2
Sex	1	2.66	.10	.11
Skin	1	3.86	.05	.16
Veil	1	8.94	.003	.36
Islamophobia - CG	1	9.43	.002	.38

Note. Model F(4, 345) = 6.70, p < .0001, R^2 = .07; η^2 do not sum to 1.0 due to rounding.

Table 4.22c

Islamoprejudice ANCOVA results for the Similarity Index.

Variable	DF	F Value	*p*	η^2
Sex	1	2.88	.09	.10
Skin	1	3.88	.05	.13
Veil	1	8.06	.0005	.27
Islamoprejudice	1	15.22	.001	.51

Note. Model F(4, 345) = 8.22, p < .0001, R^2 = .09; η^2 do not sum to 1.0 due to rounding.

Summary of Similarity and Islamophobia. The Islamophobia measures did not do a good job of explaining participants' similarity ratings toward veiled targets, relative to targets with no veil. In most cases, increases in Islamophobia decreased similarity ratings, no matter what the target looked like. Islamophobia – AB was the best predictor of social bias toward women who veil and explained social bias for two of the four similarity variables (understanding and sharing future plans). In other words, Islamophobia – AB had little impact on similarity ratings toward targets with no veil, but significantly decreased ratings for targets wearing a veil. Islamophobia – CG and Islamoprejudice only explained social bias for one of the similarity variables (understanding).

Social Distance and Islamophobia. Tables 4.23 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to, "Please select the highest degree of association you would desire to have with someone like her." For all three models, there was a statistically significant interaction between veil and the Islamophobia measure. Figures 4.9, 4.10, and 4.11 show plots of these interactions. While the interaction effect is similar in all three plots, the plot for Islamophobia – AB displays it most clearly: Islamophobia has very little impact on social distance for targets with no veil, but as Islamophobia increases, social distance increases sharply for targets wearing a veil. Islamophobia explains participants' social distance ratings toward veiled targets, relative to targets with no veil. The affective/behavioral measure of Islamophobia provides the clearest explanation of this interaction. Adding a measure of Islamophobia greatly increased the overall strength of the model ($R^2 = .02$), and the strongest model included Islamophobia – AB ($R^2 = .29$).

Table 4.23a

Islamophobia - AB ANCOVA results for social distance.

Variable	DF	F Value	*p*	η^2
Sex	1	0.76	.38	.005
Skin	1	0.39	.53	.003
Veil	1	24.84	<.0001	.17
Islamophobia - AB	1	95.77	<.0001	.65
Veil*Islamophobia - AB	1	24.58	<.0001	.17

Note. Model $F(5, 341) = 28.14$, $p < .0001$, $R^2 = .29$; η^2 do not sum to 1.0 due to rounding.

Table 4.23b

Islamophobia - CG ANCOVA results for social distance.

Variable	DF	F Value	*p*	η^2
Sex	1	2.82	.09	.04
Skin	1	0.14	.71	.002
Veil	1	7.15	.008	.10
Islamophobia - CG	1	56.15	<.0001	.78
Veil*Islamophobia - CG	1	6.02	.01	.08

Note. Model $F(5, 341) = 16.11$, $p < .0001$, $R^2 = .19$; η^2 do not sum to 1.0 due to rounding.

Table 4.23c

Islamoprejudice ANCOVA results for social distance.

Variable	DF	F Value	*p*	η^2
Sex	1	3.86	.05	.04
Skin	1	0.38	.54	.004
Veil	1	6.89	.009	.07
Islamoprejudice	1	83.07	<.0001	.83
Veil*Islamoprejudice	1	6.48	.01	.06

Note. Model $F(5, 341) = 20.99$, $p < .0001$, $R^2 = .24$; η^2 do not sum to 1.0 due to rounding.

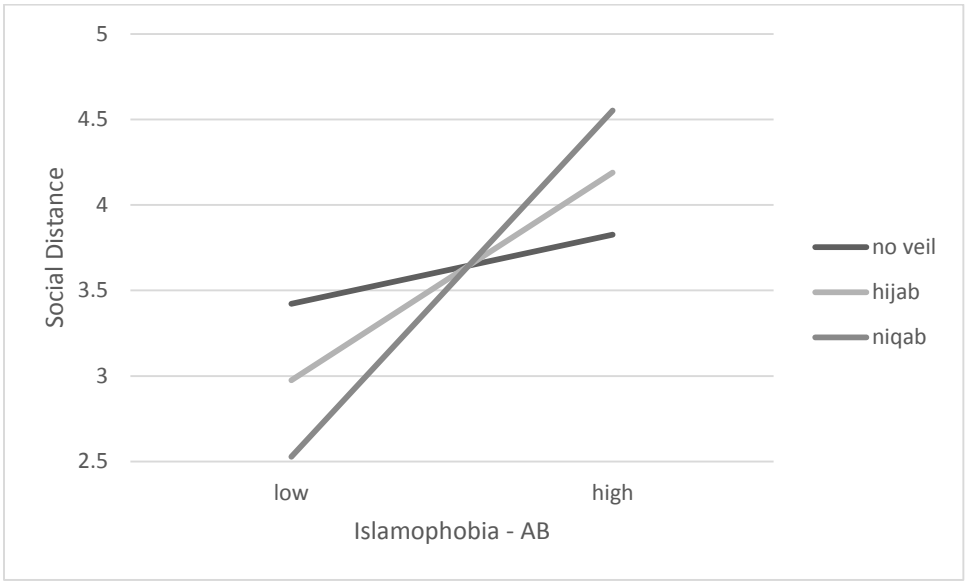

Figure 4.9. Relationship between Islamophobia - AB and social distance by level of veil

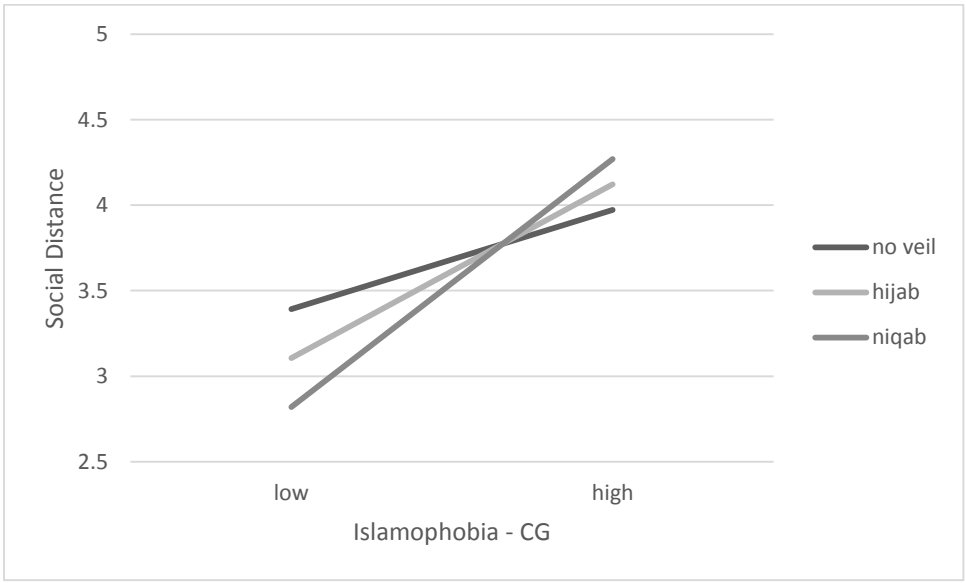

Figure 4.10. Relationship between Islamophobia - CG and social distance by level of veil

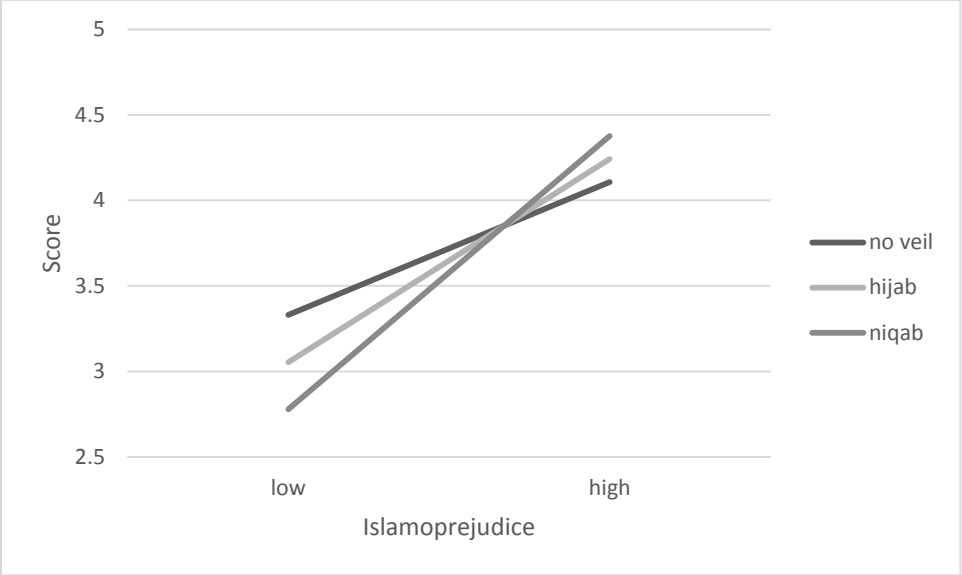

Figure 4.11. Relationship between Islamoprejudice and social distance by level of veil

Moral Outrage and Islamophobia. Tables 4.24 a, b, and c show, for each measure of Islamophobia, the results of the statistical analyses of the responses to the Moral Outrage Index. For all three models, there was a statistically significant interaction between veil and the Islamophobia measure. Figures 4.12, 4.13, and 4.14 show plots of these interactions. While the interaction effect is similar in all three plots, the plot for Islamophobia – AB displays it most clearly: Islamophobia has very little impact on moral outrage for targets with no veil, but as Islamophobia increases, moral outrage increases sharply for targets wearing a veil. Islamophobia explains participants' moral outrage toward veiled targets, relative to targets with no veil. The affective/behavioral measure of Islamophobia provides the clearest explanation of this interaction. Adding a measure of Islamophobia greatly increased the overall strength of the model (from $R^2 = .02$), and the addition of Islamophobia – AB produced the strongest model ($R^2 = .23$). For all three models, the measure of Islamophobia was the main predictor of the variation in moral outrage.

Table 4.24a

Islamophobia – AB ANCOVA results for Moral Outrage.

Variable	DF	F Value	*p*	η^2
Sex	1	1.91	.17	.02
Skin	1	0.8	.37	.008
Veil	1	12.53	.0005	.12
Islamophobia - AB	1	72.26	<.0001	.71
Veil*Islamophobia - AB	1	13.98	.0002	.14

Note. Model $F(5, 344) = 20.67$, $p < .0001$, $R^2 = .23$; η^2 do not sum to 1.0 due to rounding.

Table 4.24b

Islamophobia - CG ANCOVA results for Moral Outrage.

Variable	DF	F Value	*p*	η^2
Sex	1	4.1	.04	.05
Skin	1	1.34	.25	.02
Veil	1	7.26	.01	.09
Islamophobia - CG	1	60.16	<.0001	.75
Veil*Islamophobia - CG	1	7.8	.01	.10

Note. Model $F(5, 344) = 17.76$, $p < .0001$, $R^2 = .21$; η^2 do not sum to 1.0 due to rounding.

Table 4.24c

Islamoprejudice ANCOVA results for Moral Outrage.

Variable	DF	F Value	*p*	η^2
Sex	1	5.67	.02	.07
Skin	1	0.72	.40	.01
Veil	1	7.01	.01	.08
Islamoprejudice	1	66.24	<.0001	.76
Veil*Islamoprejudice	1	7.39	.01	.08

Note. Model $F(5, 344) = 17.86$, $p < .0001$, $R^2 = .21$

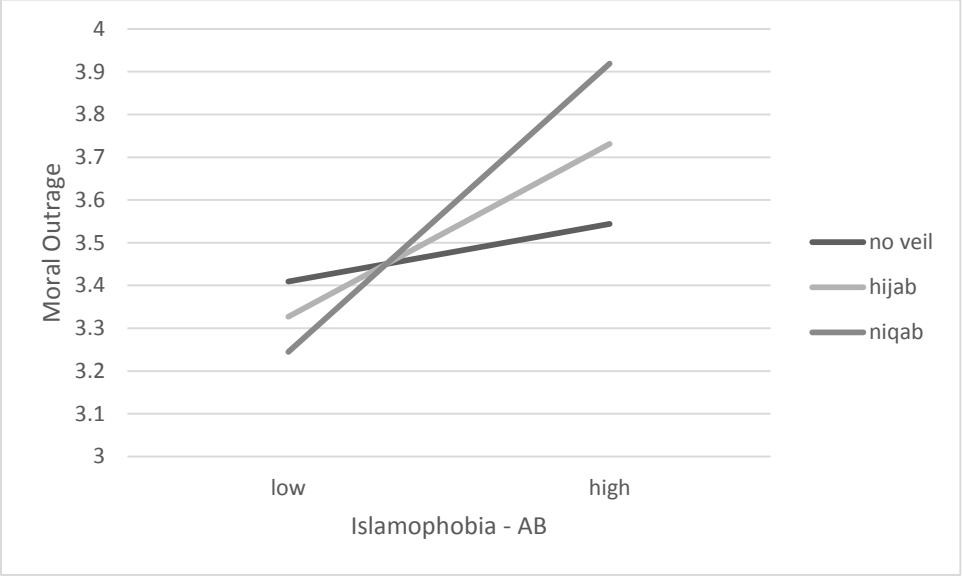

Figure 4.12. Relationship between Islamophobia- AB and moral outrage by level of veil

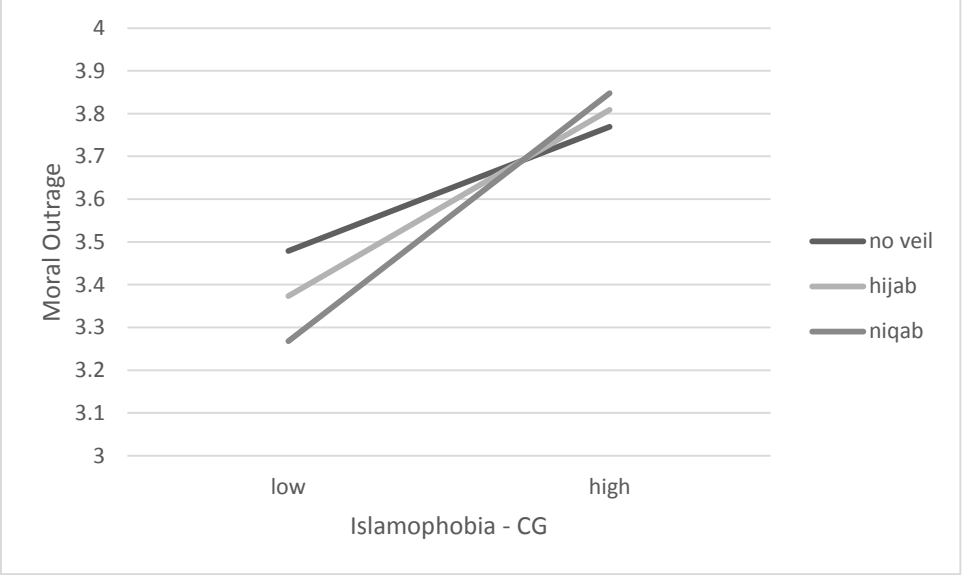

Figure 4.13. Relationship between Islamophobia- CG and moral outrage by level of veil

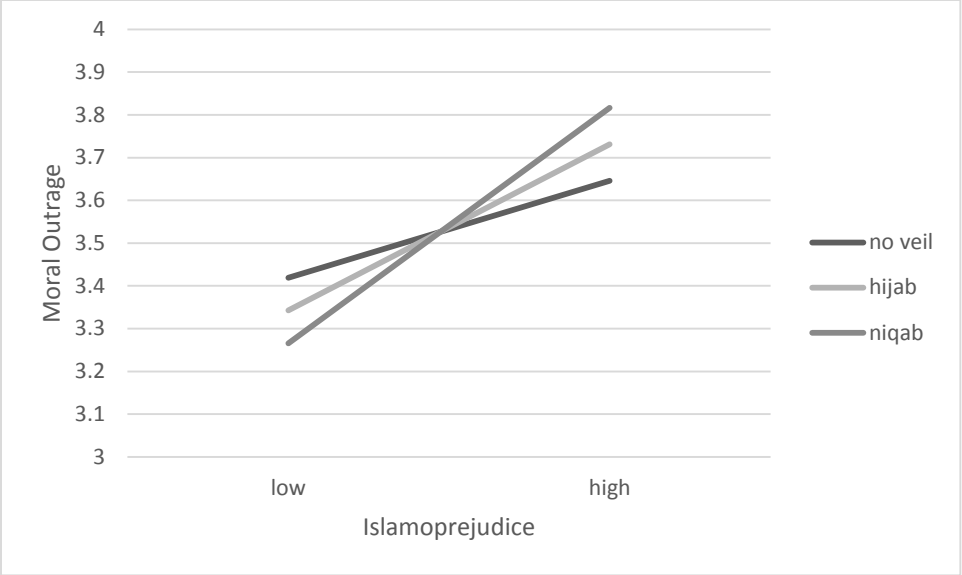

Figure 4.14. Relationship between Islamoprejudice and moral outrage by level of veil

Stereotype Content and Islamophobia. Tables 4.25a – 4.28c show the results, for each measure of Islamophobia, of statistical analyses for the competence, warmth, status, and competition stereotype items. The addition of measures of Islamophobia as covariates did not significantly impact any of the models. There were no statistically significant veil*Islamophobia interaction effects. In other words, when asked how members of society would rate the targets on competence, warmth, status, and competition, participants' levels of Islamophobia had little impact.

Table 4.25a

Islamophobia - AB ANCOVA results for the Competence stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.33	.57	.003
Skin	1	1.22	.27	.01
Veil	1	122.90	<.0001	.99
Islamophobia - AB	1	0.02	.90	.0001

Note. Model $F(4, 344) = 31.12$, $p < .0001$, $R^2 = .27$; η^2 do not sum to 1.0 due to rounding.

Table 4.25b

Islamophobia - CG ANCOVA results for the Competence stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.33	.57	.003
Skin	1	1.22	.27	.01
Veil	1	122.72	<.0001	.99
Islamophobia - CG	1	0.01	.91	.0001

Note. Model F(4, 344) = 31.12, p < .0001, R^2 = .27; η^2 do not sum to 1.0 due to rounding.

Table 4.25c

Islamoprejudice ANCOVA results for the Competence stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.25	.62	.002
Skin	1	1.17	.28	.009
Veil	1	123.09	<.0001	.99
Islamoprejudice	1	0.24	.63	.002

Note. Model F(4, 344) = 31.20, p < .0001, R^2 = .27; η^2 do not sum to 1.0 due to rounding.

Table 4.26a

Islamophobia - AB ANCOVA results for the Warmth stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.98	.32	.03
Skin	1	0.67	.41	.02
Veil	1	28.62	<.0001	.91
Islamophobia - AB	1	1.26	.26	.04

Note. Model F(4, 344) = 8.08, p < .0001, R^2 = .09

Table 4.26b

Islamophobia - CG ANCOVA results for the Warmth stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.82	.37	.03
Skin	1	0.67	.41	.02
Veil	1	28.47	<.0001	.92
Islamophobia - CG	1	0.89	.35	.03

Note. Model F(4, 344) = 7.98, p < .0001, R^2 = .08

Table 4.26c

Islamoprejudice ANCOVA results for the Warmth stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.85	.36	.03
Skin	1	0.65	.42	.02
Veil	1	29.26	<.0001	.90
Islamoprejudice	1	1.88	.17	.06

Note. Model F(4, 344) = 8.25, p < .0001, R^2 = .09; η^2 do not sum to 1.0 due to rounding.

Table 4.27a

Islamophobia – AB ANCOVA results for the Status stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.51	.22	.01
Skin	1	5.67	.02	.05
Veil	1	83.17	<.0001	.80
Veil*Skin	1	13.81	.0002	.13
Islamophobia - AB	1	0.19	.66	.002

Note. Model F(5, 342) = 20.44, p < .0001, R^2 = .23; η^2 do not sum to 1.0 due to rounding.

Table 4.27b

Islamophobia – CG ANCOVA results for the Status stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.91	.17	.02
Skin	1	5.96	.02	.06
Veil	1	84.81	<.0001	.79
Veil*Skin	1	12.96	.0004	.12
Islamophobia - CG	1	2.19	.14	.02

Note. Model $F(5, 342) = 20.96$, $p < .0001$, $R^2 = .23$; η^2 do not sum to 1.0 due to rounding.

Table 4.27c

Islamoprejudice ANCOVA results for the Status stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.26	.26	.01
Skin	1	5.51	.02	.05
Veil	1	82.91	<.0001	.80
Veil*Skin	1	13.72	.0002	.13
Islamoprejudice	1	0.09	.76	.009

Note. Model $F(5, 342) = 20.41$, $p < .0001$, $R^2 = .23$; η^2 do not sum to 1.0 due to rounding.

Table 4.28a

Islamophobia - AB ANCOVA results for the Competition stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	2.91	.09	.08
Skin	1	0.01	.93	.0002
Veil	1	11.78	.0007	.33
Skin*Veil	1	7.65	.01	.21
Islamophobia - AB	1	8.81	.003	.25
Sex*Islamophobia - AB	1	4.57	.03	.13

Note. Model $F(6, 341) = 5.63$, $p < .0001$, $R^2 = .09$; η^2 do not sum to 1.0 due to rounding.

Table 4.28b

Islamophobia - CG ANCOVA results for the Competition stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	2.91	.09	.08
Skin	1	0.09	.76	.003
Veil	1	12.01	.0006	.34
Skin*Veil	1	8.88	.003	.25
Islamophobia - CG	1	5.69	.02	.16
Sex*Islamophobia - CG	1	5.40	.02	.15

Note. Model $F(6, 341) = 5.63$, $p < .0001$, $R^2 = .09$; η^2 do not sum to 1.0 due to rounding.

Table 4.28c

Islamoprejudice ANCOVA results for the Competition stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	9.40	.002	.18
Skin	1	0.01	.908	.0003
Veil	1	13.57	.0003	.26
Skin*Veil	1	8.94	.003	.17
Islamoprejudice	1	10.14	.002	.19
Sex*Islamoprejudice	1	11.04	.001	.21

Note. Model $F(6, 341) = 6.55$, $p < .0001$, $R^2 = .10$; η^2 do not sum to 1.0 due to rounding.

Summary of Islamophobia. The main purpose of including covariate measures of Islamophobia in this study was to determine if participants' fear of Muslims could help explain bias toward women who wear a veil, relative to those who do not. For Islamophobia to help explain bias, it must have an interaction with level of veil. A significant Islamophobia main effect would not really help to explain bias toward veiled women since an additive effect, which results in decreased ratings of all the target faces, does not help to explain biased reactions toward veiled targets versus those with no veil. A main effect for Islamophobia simply suggests that prejudiced people react more negatively toward all people, no matter what they look like. However, if there was a significant Islamophobia*veil interaction in the expected direction, it helps to explain social bias toward veiled women, relative to those with no veil. Overall, the inclusion of Islamophobia – AB, as a covariate, resulted in the most interactions with veil. These results suggest that Islamophobia can explain some social bias toward women who wear the hijab and especially the niqab, and that it is best characterized by affective and behavioral factors, as opposed to cognitive factors.

Secularism

To gain a deeper understanding of the source of social bias and to further examine some of the results that contradicted my hypotheses, I added covariates that measure participants' belief in secularism to each of the best-fitting models as described above. My purpose for adding measures of secularism, as covariates, to these models was to test whether a belief that religion should not play a role in government, education, or other public parts of society could help explain social bias toward women who wear a veil, relative to those who do not. My interest in the following analyses is the veil*secularism interactions. Secularist beliefs should have very little impact on participants' evaluations of targets with no veils. However, belief in secularism should impact participants' ratings of veiled targets. In the plots of the interaction effects, I used the values of one standard deviation above and below the mean to indicate "high" and "low" secularism.

I used two measures of secularism in this study. The first measure was the Secular Critique of Islam subscale as designed by Irmhoff and Recker (2012). I designed the second measure of secularism ("Secularism scale") using factor analysis of questionnaire items. First, I conducted an exploratory factor analysis on the secularism items. There were two items ("Circumcision of boys or girls is child abuse and should be banned" and "Animal sacrifice is barbaric and should be banned") that did not load heavily on any of the factors. After considering the validity of these items, I determined that they were better measures of morality than secularism, so I removed them from the analysis. The remaining thirteen secularism items loaded onto two factors (See Appendix J). However, after further examination of the two factors, I noticed that the second factor was comprised of the three items that were negatively worded. All of the other items loaded

on the first factor. According to research conducted by Schmitt and Stults (1985), the factor comprised of the negatively keyed items could be produced very easily if only ten percent of respondents responded carelessly and failed to notice the negative-positive wording of the items.

Following the advice of Schmitt and Stults (1985), I examined the responses for evidence of careless responding. While there were no clear patterns in the responses for the secularism items to indicate careless responding, I decided to remove the three negatively keyed items since they did not group together in any meaningful way. In fact, issues addressed in these items (religion, education, and government leaders) were captured in other items in the section, so I did not lose any information.

I conducted an exploratory factor analysis on the remaining ten items and a one-factor model was suggested (See Appendix J). Since all of the items grouped together and were highly correlated ($\alpha = .91$), I created a single Secularism scale measure by averaging responses on the ten items. Secularism scale values ranged from 1 to 5 ($M = 3.22$, $SD = 0.84$), with higher values indicting stronger secularism.

Attraction and Secularism. Tables 4.29a – 4.32c show, for each measure of secularism, the results of statistical analyses of the responses to the three separate measure of attraction and the Attraction Index. Overall, adding measures of secularism to the models did not greatly improve the model strength. There were statistically significant veil X Secular Critique interactions for two of the four attraction variables: liking and becoming friends with the target and the Attraction Index. Figures 4.18 and 4.19 show plots of these interactions. For liking and becoming friends with the target, an increased belief in the Secular Critique of Islam decreased ratings for veiled targets,

especially targets wearing the niqab, but did not lower ratings for targets with no veil. For the Attraction Index, an increased belief in the Secular Critique of Islam lowered ratings for the targets wearing the niqab, but not for the other targets. There were no veil*secularism interactions for models that included the Secularism scale as a covariate.

Table 4.29a

Secular Critique of Islam ANCOVA results for the probability of liking and becoming friends with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	5.21	.02	.24
Skin	1	1.76	.19	.08
Veil	1	5.40	.02	.25
Secular Critique	1	3.24	.07	.15
Veil*Secuālar Critique	1	6.16	.01	.28

Note. Model F(5, 342) = 3.10, p = .009, R^2 = .04;

Table 4.29b

Secularism ANCOVA results for the probability of liking and becoming friends with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	5.19	.02	.66
Skin	1	2.00	.16	.26
Veil	1	0.58	.45	.07
Secularism	1	0.08	.78	.01

Note. Model F(4, 344) = 1.95, p = .10, R^2 = .02

Table 4.30a

Secular Critique of Islam ANCOVA results for the probability of enjoying spending time with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	6.00	.01	.85
Skin	1	0.13	.72	.02
Veil	1	0.57	.45	.08
Secular Critique	1	0.38	.54	.05

Note. Model F(4, 343) = 1.83, p = .12, R^2 = .02

Table 4.30b

Secularism ANCOVA results for the probability of enjoying spending time with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	6.26	.01	.84
Skin	1	0.13	.72	.02
Veil	1	0.50	.48	.07
Secularism	1	0.58	.45	.08

Note. Model F(4, 344) = 1.94, p = .10, R^2 = .03; η^2 do not sum to 1.0 due to rounding.

Table 4.31a

Secular Critique of Islam ANCOVA results for the probability of working with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	1.26	.26	.65
Skin	1	0.05	.83	.03
Veil	1	0.09	.76	.05
Secular Critique	1	0.53	.47	.27

Note. Model F(4, 343) = 0.46, p = .76, R^2 = .005

Table 4.31b

Secularism ANCOVA results for the probability of working with the target.

Variable	DF	F Value	*p*	η^2
Sex	1	1.19	.28	.18
Skin	1	0.05	.83	.007
Veil	1	0.13	.72	.02
Secularism	1	5.12	.02	.79

Note. Model $F(4, 344) = 1.62$, $p = .17$, $R^2 = .02$; η^2 do not sum to 1.0 due to rounding.

Table 4.32a

Secular Critique of Islam ANCOVA results for the Attraction Index.

Variable	DF	F Value	*p*	η^2
Sex	1	10.62	.001	.38
Skin	1	0.00	1.00	.0000009
Veil	1	10.27	.002	.37
Secular Critique	1	0.09	.76	.003
Veil*Secular Critique	1	7.06	.01	.25

Note. Model $F(5, 343) = 6.05$, $p < .0001$, $R^2 = .08$; η^2 do not sum to 1.0 due to rounding.

Table 4.32b

Secularism ANCOVA results for the Attraction Index.

Variable	DF	F Value	*p*	η^2
Sex	1	10.16	.002	.43
Skin	1	0.02	.88	.0009
Veil	1	11.58	.001	.49
Secularism	1	1.66	.20	.07

Note. Model $F(4, 345) = 6.19$, $p < .0001$, $R^2 = .07$; η^2 do not sum to 1.0 due to rounding.

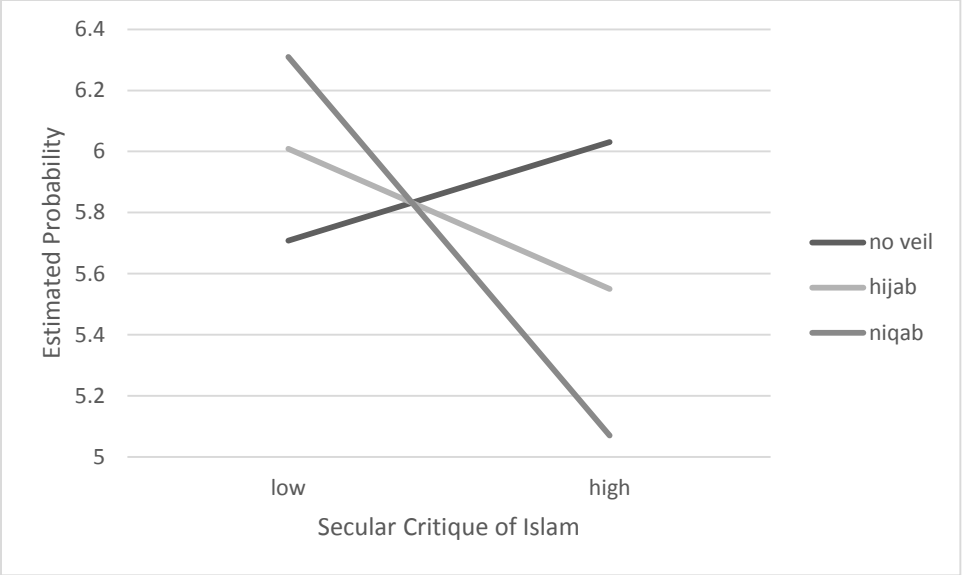

Figure 4.18. Relationship between Secular Critique and liking and becoming friends with the target by level of veil

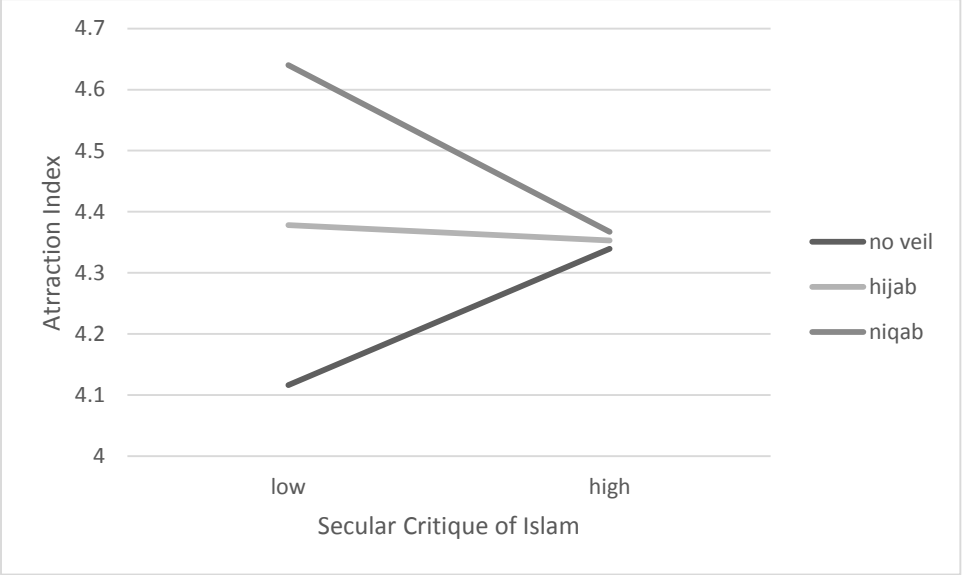

Figure 4.19. Relationship between Secular Critique and the Attraction Index by level of veil

In summary, the addition of the covariate measure of secularism did not greatly help to explain attraction toward women who wear the veil, relative to those who do not. Belief in secularism generally did not interact with veil in predicting attraction ratings, and did not improve the strength of the models.

Similarity and Secularism. Tables 4.33a – 4.36c show, for each measure of secularism, the results of the statistical analyses of the responses to the four similarity measures. The Secularism scale did not significantly interact with veil for any of the similarity variables. The Secular Critique of Islam interacted with veil for two of the four similarity variables: understanding the target and having similar future plans. Figures 4.20 and 4.21 show plots of these interactions. Both plots display similar interaction effects. While increases in Secular Critique have very little impact on similarity ratings for the targets with no veil, there was a substantial negative impact on similarity ratings for veiled targets, especially for targets wearing the niqab. Overall, adding measures of secularism as covariates did not help to explain social bias toward women who veil. With only two exceptions, secularism did not interact with veil in predicting similarity ratings.

Table 4.33a

Secular Critique of Islam ANCOVA results for the probability of coming from the same background.

Variable	DF	F Value	*p*	η^2
Sex	1	3.81	.05	.03
Skin	1	3.15	.08	.03
Veil	1	100.73	<.0001	.86
Veil*Skin	1	5.31	.02	.05
Secular Critique	1	3.67	.06	.03

Note. Model $F(5, 343) = 23.14$, $p < .0001$, $R^2 = .25$

Table 4.33b

Secularism ANCOVA results for the probability of coming from the same background.

Variable	DF	F Value	*p*	η^2
Sex	1	4.46	.04	.04
Skin	1	3.17	.08	.03
Veil	1	100.73	<.0001	.88
Veil*Skin	1	4.75	.03	.04
Secularism	1	1.09	.30	.01

Note. Model $F(5, 344) = 22.55$, $p < .0001$, $R^2 = .25$

Table 4.34a

Secular Critique of Islam ANCOVA results for the probability of understanding target.

Variable	DF	F Value	*p*	η^2
Sex	1	2.22	.14	.11
Skin	1	3.54	.06	.17
Veil	1	4.88	.03	.24
Secular Critique	1	2.44	.12	.12
Veil*Secular Critique	1	7.43	.01	.36

Note. Model $F(5, 343) = 4.48$, $p = .0006$, $R^2 = .06$

Table 4.34b

Secularism ANCOVA results for the probability of understanding target.

Variable	DF	F Value	*p*	η^2
Sex	1	2.27	.13	.16
Skin	1	4.08	.04	.29
Veil	1	7.94	.01	.56
Secularism	1	0.01	.92	.0007

Note. Model $F(4, 345) = 3.52$, $p = .008$, $R^2 = .04$; η^2 do not sum to 1.0 due to rounding.

Table 4.35a

Secular Critique of Islam ANCOVA results for the probability that plans for the future are similar.

Variable	DF	F Value	*p*	η^2
Sex	1	14.98	.0001	.56
Skin	1	0.15	.70	.005
Veil	1	3.86	.05	.14
Secular Critique	1	2.55	.11	.09
Veil*Secular Critique	1	5.37	.02	.20

Note. Model F(5, 343) = 4.96, p = .0002, R^2 = .07; η^2 do not sum to 1.0 due to rounding.

Table 4.35b

Secularism ANCOVA results for the probability that plans for the future are similar.

Variable	DF	F Value	*p*	η^2
Sex	1	15.49	.0001	.78
Skin	1	0.29	.59	.01
Veil	1	3.7	.06	.19
Secularism	1	0.35	.56	.02

Note. Model F(4, 345) = 4.82, p = .0009, R^2 = .05

Table 4.36a

Secular Critique of Islam ANCOVA results for the Similarity Index.

Variable	DF	F Value	*p*	η^2
Sex	1	3.79	.05	.14
Skin	1	4.84	.03	.18
Veil	1	7.64	.01	.29
Secular Critique	1	4.59	.03	.17
Sex*Secular Critique	1	5.52	.02	.21

Note. Model F(5, 343) = 5.04, p = .0002, R^2 = .07; η^2 do not sum to 1.0 due to rounding.

Table 4.36b

Secularism ANCOVA results for the Similarity Index.

Variable	DF	F Value	*p*	η^2
Sex	1	3.15	.08	.15
Skin	1	4.35	.04	.21
Veil	1	7.51	.01	.36
Secularism	1	0.02	.90	.0008
Sex*Secularism	1	5.66	.02	.27

Note. Model F(4, 344) = 4.67, p = .0004, R^2 = .06; η^2 do not sum to 1.0 due to rounding.

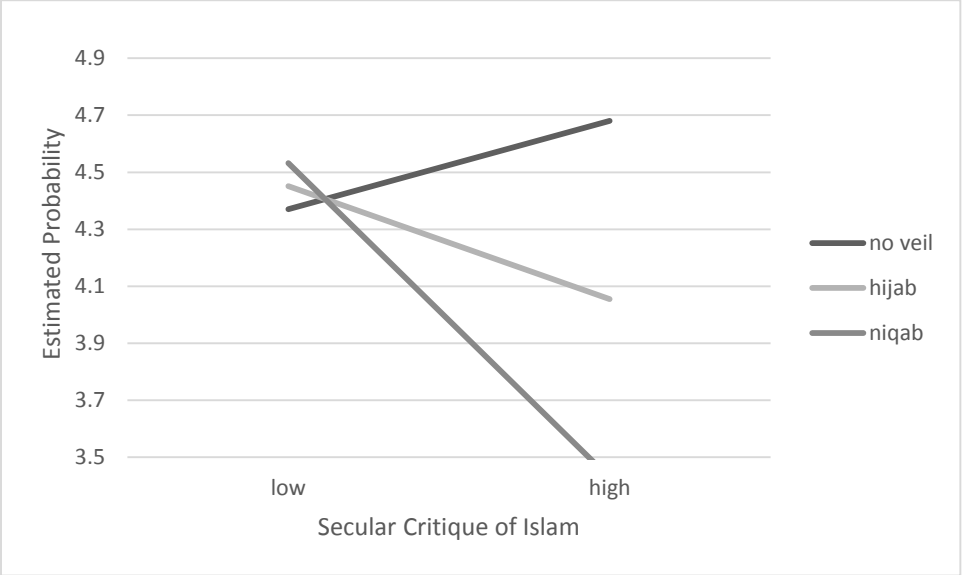

Figure 4.20. Relationship between Secular Critique and understanding the target by level of veil

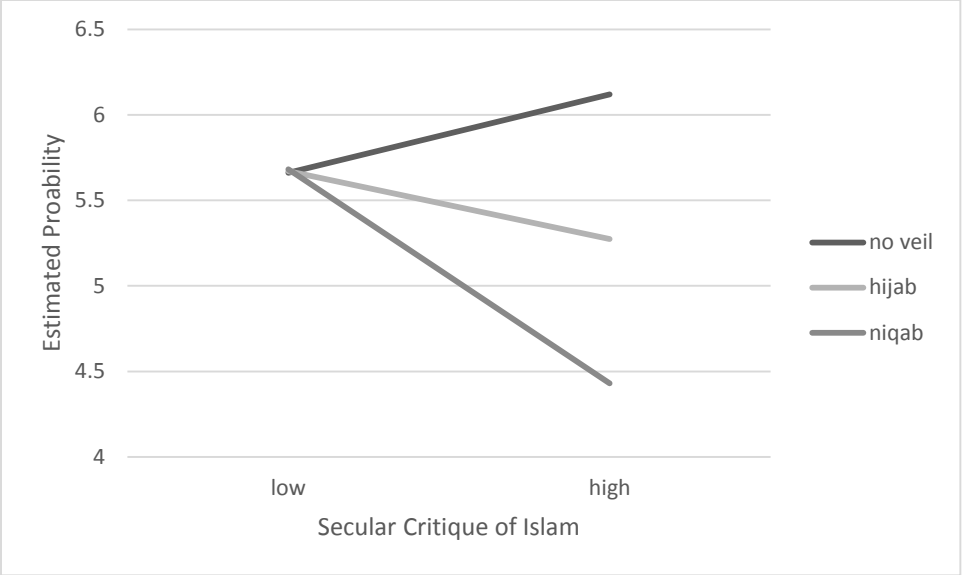

Figure 4.21. Relationship between Secular Critique and plans for the future are similar by level of veil

Social Distance and Secularism. Tables 4.37 a and b show, for each measure of secularism, the results of the statistical analyses of the responses to "Please select the highest degree of association you would desire to have with someone like her." The Secularism scale did not significantly interact with veil in predicting social distance, but the Secular Critique of Islam did. There was a statistically significant veil X Secular Critique interaction ($F(1, 344) = 12.53$, $p = .0005$). Figure 4.22 shows a plot of this interaction. As the Secular Critique of Islam increases, social distance toward targets wearing veils also increases, especially for targets wearing the niqab.

Table 4.37a

Secular Critique of Islam ANCOVA results for social distance.

Variable	DF	F Value	*p*	η^2
Sex	1	6.73	.01	.19
Skin	1	0.39	.53	.01
Veil	1	12.84	.0004	.36
Secular Critique	1	3.25	.07	.09
Veil*Secular Critique	1	12.53	.0005	.35

Note. Model $F(5, 340) = 4.29$, $p = .0008$, $R^2 = .06$

Table 4.37b

Secularism ANCOVA results for social distance.

Variable	DF	F Value	*p*	η^2
Sex	1	6.64	.01	.77
Skin	1	0.67	.41	.08
Veil	1	0.23	.63	.03
Secularism	1	1.05	.31	.12

Note. Model $F(4, 342) = 2.22$, $p = .07$, $R^2 = .03$

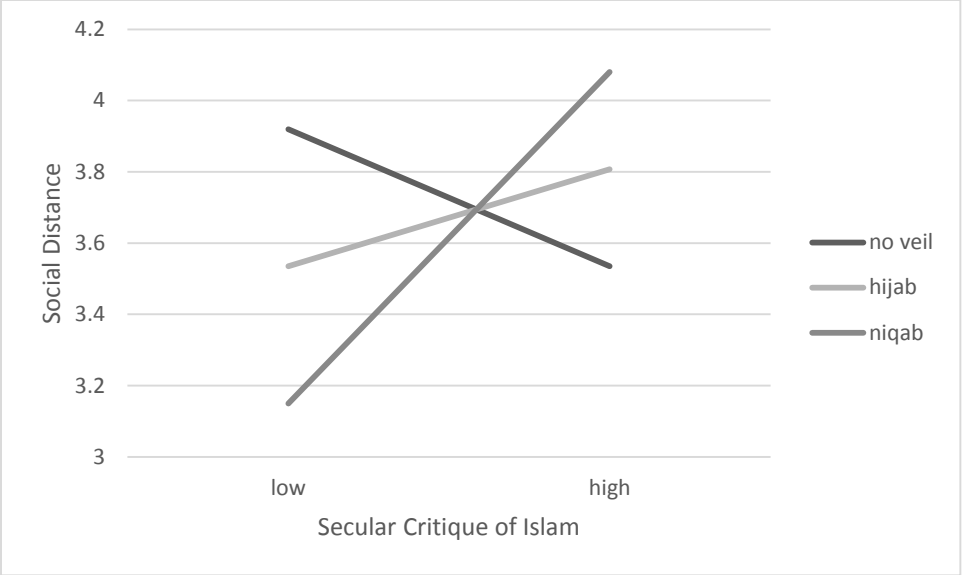

Figure 4.22. Relationship between Secular Critique and social distance by level of veil

Moral Outrage and Secularism. Tables 4.38 a and b show, for each measure of secularism, the results of the statistical analyses of the responses to the Moral Outrage Index items. The Secularism scale did not significantly interact with veil in predicting moral outrage, but the Secular Critique of Islam did. There was a statistically significant veil X Secular Critique interaction ($F(1, 347) = 9.22$, $p = .003$). Figure 4.23 shows a plot of this interaction. As Secular Critique increases, so does moral outrage toward women who veil, especially those wearing the niqab. The fact that Secular Critique has very little impact on moral outrage toward targets with no veil, but substantial impact on those who do suggests that the Secular Critique of Islam can help to explain social bias toward women who veil.

Table 4.38a

Secular Critique of Islam ANCOVA results to Moral Outrage.

Variable	DF	F Value	*p*	η^2
Sex	1	8.53	.004	.23
Skin	1	0.41	.52	.01
Veil	1	8.93	.003	.24
Secular Critique	1	10.15	.002	.27
Veil*Secular Critique	1	9.22	.003	.25

Note. Model F(5, 343) = 4.96, p = .0002, R^2 = .07

Table 4.38b

Secularism ANCOVA results to Moral Outrage.

Variable	DF	F Value	*p*	η^2
Sex	1	1.95	.16	.27
Skin	1	0.30	.58	.04
Veil	1	0.03	.87	.004
Secularism	1	0.01	.91	.002
Sex*Secularism	1	4.82	.03	.68

Note. Model F(5, 344) = 2.90, p = .01, R^2 = .04; η^2 do not sum to 1.0 due to rounding.

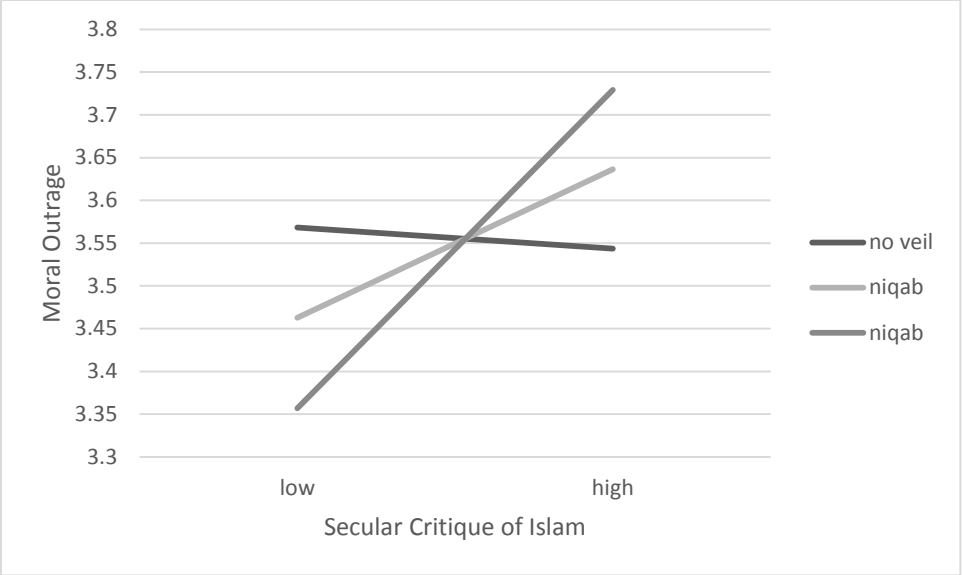

Figure 4.23. Relationship between Secular Critique and Moral Outrage by level of veil

Stereotype Content and Secularism. Tables 4.39a – 4.40b show, for each measure of secularism, the results of statistical analyses for the Competence and Warmth stereotype items. Neither measure of secularism significantly interaction with veil in predicting these stereotype contents. Participants' ratings of how members of society view veiled or unveiled women in terms of competence and warmth were not impacted by belief in secularism.

Table 4.39a

Secular Critique of Islam ANCOVA results to the Competence stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.35	.56	.003
Skin	1	1.25	.26	.01
Veil	1	122.60	<.0001	.99
Secular Critique	1	0.00	.99	.0000003

Note. Model $F(4, 343) = 31.06$, $p < .0001$, $R^2 = .27$; η^2 do not sum to 1.0 due to rounding.

Table 4.39b

Secularism ANCOVA results to the Competence stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.33	.57	.003
Skin	1	1.25	.26	.01
Veil	1	122.62	<.0001	.97
Secularism	1	2.51	.11	.02

Note. Model F(4, 344) = 31.97, $p < .0001$, $R^2 = .27$; η^2 do not sum to 1.0 due to rounding.

Table 4.40a

Secular Critique of Islam ANCOVA results to the Warmth stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.59	.44	.02
Skin	1	0.74	.39	.02
Veil	1	28.99	<.0001	.96
Secular Critique	1	0.02	.88	.0008

Note. Model F(4, 343) = 7.72 $p < .0001$, $R^2 = .08$

Table 4.40b

Secularism ANCOVA results to the Warmth stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	0.57	.45	.02
Skin	1	0.76	.38	.02
Veil	1	28.8	<.0001	.92
Secularism	1	2.06	.15	.04

Note. Model F(4, 344) = 8.30, $p < .0001$, $R^2 = .09$

Tables 4.41a and b show the results, for each measure of secularism, of the statistical analysis of the responses to the Status stereotype items. Secularism was not a

statistically significant predictor and while the Secular Critique of Islam was not statistically significant, there was a significant veil X Secular Critique interaction ($F(1, 345) = 9.12$, $p = .003$). Figures 4.24a and b show plots of this interaction. Since there was also a significant skin tone X veil interaction in this model, I created one plot for light skinned targets and one for dark skinned targets. Overall, as the Secular Critique of Islam increased, participants' ratings of social status for the targets with no veil increased and social status for the targets wearing the hijab and niqab decreased. The decrease was steepest for the target wearing the niqab.

Table 4.41a

Secular Critique of Islam ANCOVA results to the Status stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.39	.24	.04
Skin	1	4.88	.03	.14
Veil	1	2.04	.15	.06
Skin*Veil	1	15.22	.0001	.42
Secular Critique	1	3.22	.07	.09
Veil*Secular Critique	1	9.12	.003	.25

Note. Model $F(6, 340) = 19.15$, $p < .0001$, $R^2 = .25$

Table 4.41b

Secularism ANCOVA results to the Status stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.42	.23	.01
Skin	1	5.71	.02	.05
Veil	1	82.59	<.0001	.77
Skin*Veil	1	13.78	.0002	.13
Secularism	1	3.71	.05	.03

Note. Model $F(5, 342) = 21.35$, $p < .0001$, $R^2 = .24$; η^2 do not sum to 1.0 due to rounding.

Figure 4.24a. Relationship between Secular Critique and Status by level of veil for light skinned targets

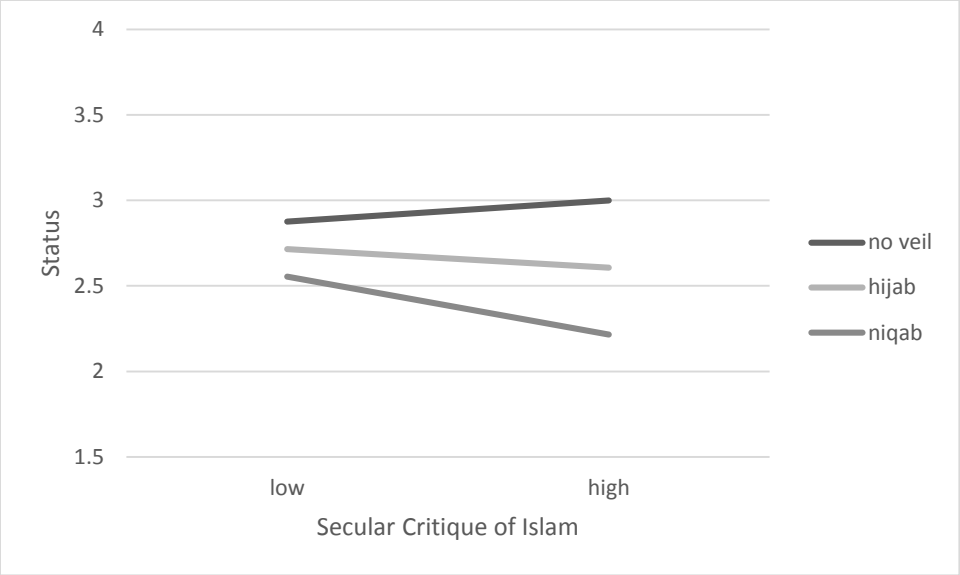

Figure 4.24b. Relationship between Secular Critique and Status by level of veil for dark skinned targets

Tables 4.42a and b show the results, for each measure of secularism, of the statistical analyses of the responses to the Competition stereotype items. Neither Secular Critique no the Secularism scale significantly interacted with veil in these models. Neither measure of secularism appears to be relevant in predicting participants' ratings of how members of society view veiled and unveiled women in terms of competition.

Table 4.42a

Secular Critique of Islam ANCOVA results to the Competition stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	4.84	.03	.14
Skin	1	0.13	.72	.004
Veil	1	12.52	.0005	.35
Skin*Veil	1	8.26	.004	.23
Secular Critique	1	3.71	.06	.10
Sex*Secular Critique	1	5.97	.02	.17

Note. Model $F(6, 340) = 4.90$, $p < .0001$, $R^2 = .08$; η^2 do not sum to 1.0 due to rounding.

Table 4.42b

Secularism ANCOVA results to the Competition stereotype items.

Variable	DF	F Value	*p*	η^2
Sex	1	1.43	.23	.06
Skin	1	0.06	.81	.003
Veil	1	12.04	.001	.55
Skin*Veil	1	8.15	.005	.37
Secularism	1	0.13	.71	.006

Note. Model $F(5, 342) = 4.26$, $p = .0009$, $R^2 = .06$; η^2 do not sum to 1.0 due to rounding.

Summary of Secularism. General beliefs about secularism did not have any relevance to participants' ratings of veiled and unveiled targets. The Secularism scale did not significantly interact with veil for any of the models and did not contribute to the models by increasing predictive power. On the other hand, beliefs in secularism that are specific to Muslims, as measured with the Secular Critique of Islam, interacted with veil in participants' ratings of attraction (liking and the Attraction Index), similarity (understanding and sharing future plans), social distance, and moral outrage. The greater participants' secular critique, the more negatively participants reacted to targets wearing a veil, relative to targets with no veil. The Secular Critique of Islam, but not a general belief in secularism, provides some explanation for social bias toward women who veil.

CHAPTER 5

DISCUSSION

As described in the previous chapters, the goals of this research were to develop a deeper understanding of social bias toward Muslim women who veil and to explore a unique way of measuring bias with a web experiment using photoshopped images. In this chapter I will provide a discussion of the results of this research. I will also address the limitations of the study, and provide directions for future research.

Is there social bias toward women who veil?

There is no simple answer to this question. I do find some support for my first hypothesis that as veil coverage increases, so does social bias. My research provides evidence that there is social bias against women who veil, but it is mostly among those people who hold anti-Muslim attitudes. For instance, in the cases of liking and friendship, the average ratings for targets with hijab, niqab, and no veil appear to be quite similar, and analysis showed no significant veil effect. The addition of a measure of fear of Muslims (Islamophobia-AB) to the analysis, however, helped show what is really going on. Anti-Muslim attitudes moderate the relationship between liking and veiling. Those participants with high anti-Muslim attitudes (one standard deviation above the mean) indicated, on average, a 49% chance of liking the target with no veil, a 45% chance of liking the target with the hijab, and only a 41% chance of liking the target with the niqab. Those participants with tolerant attitudes toward Muslims (one standard deviation below the mean) showed a reverse pattern. They indicated a 59% chance of liking the target with no veil 61% for the target with hijab, and 64% for target with niqab. This kind of

pattern was found for many other variables, as discussed in the previous chapter. These findings support my fourth hypothesis that Islamophobia will moderate the impact of veil coverage on social bias; veiling is associated with more social bias among those with higher (versus lower) levels of Islamophobia.

On the other hand, in some cases, the results of the study were not as hypothesized. For instance, for the Attraction Index, independent of all other variables, as veil coverage increased so did attraction. In addition, when there was a significant Islamophobia X veil interaction, when participants expressed low Islamophobia, they indicated the least amount of social bias toward targets wearing the niqab, and the most social bias toward targets with no veil. It was hypothesized that in all cases, even when Islamophobia was low, that participants would report the most social bias toward targets wearing the niqab, followed by targets wearing the hijab, followed by targets with no veil. Some concepts that might help to explain these unexpected results include aversive racism and the principle of complementarity.

Aversive racism refers to forms of racism that are unpleasant to the people that hold them (Dovidio & Gaertner, 2004; Gaertner & Dovidio, 1986). The effects of aversive racism on discrimination are explored in a study conducted by Nail et al. (2003), who in turn expanded a previous study conducted by Vrana and Rollock (1998). Both experiments utilized Dovidio and Gaertner's (1998) Integrated Model of Racism, which proposed an integration between symbolic-modern and aversive models of racism. The researchers suggest that there is also a link between political orientation and racism. More specifically, they propose that political conservatism is tied to symbolic-modern racism while political liberalism is linked to aversive racism. These links are proposed on the

notions that conservatives' private beliefs about race have been largely unaffected by contemporary societal norms and that they have basically learned not to express prejudiced attitudes in public settings. Nail (1986) calls this concept public compliance. Liberals, on the other hand, tend to go through a private conversion (Nail, MacDonald, & Levy, 2000) in which they internalize non-prejudiced social values and norms. While on a conscious level, liberals want a fair and inclusive society, on a subconscious level many continue to hold negative feelings toward minorities. While this model predicts that indirect measurements and certain laboratory experiments will result in higher levels of bias against minorities for both liberals and conservatives, when race and cues against discriminatory behavior are strong, the model makes different behavioral predictions for conservatives and liberals. The model suggests that European American conservatives should view an African American target more adversely than a European American target. European American liberals, in contrast, should respond with preferential treatment toward an African American target. This reverse-discrimination indicates that liberals, typically aversive racists, will make an extra effort to react favorably toward minorities in order to maintain a non-prejudiced self-image (Frey & Gaertner, 1986).

This notation of reverse-discrimination may be what is occurring when participants low on Islamophobia expressed the least amount of social bias toward the target wearing the niqab and the most amount of bias toward the target with no veil. Although this study did not have a measure of political affiliation, I would hypothesize that those low on Islamophobia would be politically liberal and therefore would be likely to be aversive racists. The low social bias rating toward veiled targets may reflect an

extra effort to express favorability toward minorities in order to preserve a non-prejudiced self-image.

Another explanation that may help to explain higher attraction and similarity to veiled targets is the complementarity principle. Even though there has been much research to support the similarity-attraction principle (Berscheid &Reis, 1998), the complementarity principle supposes that people may be attracted to people whose characteristics complement their own. This principle reflects the old adage "opposites attract" (Fiske, 2010). Along similar lines, in some cases people are attracted to that which is exotic. This notion was proposed by Bem (1996), who suggested that children's temperaments result in a preference to play either with same-sex or opposite-sex peers. Whichever sex they do not favor as a child becomes exotic to them and arousing, which elicits attraction. It should be noted that these fatal attractions, or those relationships based on dissimilarities, often dissolve. The differences and unique qualities that are initially appealing are often what causes the relationship to end (Felmlee, 1998). However, since participants are simply shown an image and asked to imagine knowing the target, my results could have captured some of this initial attraction based on the complementarity principle and attraction to the exotic.

What kind of anti-Muslim attitude is most associated with bias toward women who veil?

While I do find some support for my fourth hypothesis that Islamophobia and Secularism will moderate the impact of veil coverage on social bias and that veiling will be associated with more social bias among those with higher (versus lower) levels of Islamophobia and Secularism, not all measures of Islamophobia and Secularism are equal. This experiment helped to explore the various measures of Islamophobia. Overall,

the three measures of Islamophobia that I used (Islamophobia – AB, Islamophobia – CG and Islamoprejudice) (Lee et al., 2010, Irmhoff & Recker, 2012) performed similarly. When these measures interacted with veil coverage the relationships were comparable, which indicated that any of the three measures could be used to measure Islamophobia, or that the scales could be combined to create a single measure. The inclusion of Islamophobia – AB resulted in the most interactions with veil. As Islamophobia – AB increased, social bias toward veiled targets, especially targets wearing the niqab, increased most dramatically. These results suggest that Islamophobia can explain some social bias against women who wear the hijab, and especially the niqab, and that bias is best characterized by affective and behavioral factors as opposed to cognitive factors.

The addition of measures of secularism did not greatly improve model strength and measures of secularism were rarely statistically significant predictors of social bias. Secular Critique of Islam, but not secularism in general, provides some explanation for bias against women who veil. While there were fewer interactions than with Islamophobia, the Secular Critique of Islam did have some interactions with veil coverage. These relationships were as hypothesized. As Secular Critique of Islam scores increased, participants indicated more social bias toward veiled targets and less social bias to toward the target with no veil. Overall, secularism did not predict bias as well as the measures of Islamophobia. This finding has important implications. A concern that religion, specifically Islam, may interfere with government can be alleviated with education on how government function (e.g., the separation of church and state). However, fears and prejudices toward Muslims may be more irrational and therefore more difficult to address.

What are society's stereotypes regarding women who veil?

The results from this study expand on previous findings regarding stereotypes. Previous research conducted by Fiske, Bergsiecker, Russell, & Williams (2009) found that the combinations of perceived warmth and competence (low competence, low warmth; low competence, high warmth; high competence, low warmth; and high competence high warmth) result in different affective reactions: contempt, pity, admiration and envy. Based on their student sample, in regards to competence and warmth stereotypes, Muslims, along with other groups like Blacks, Hispanics, Native American and gay men, fell somewhere in the middle (medium competence, medium warmth).

The researchers suggest that groups in the middle may be there for a variety of reasons. Groups may be in the middle because respondents do not have clear stereotypes about them or because there are conflicting stereotypes. Sometimes groups end up in the middle because the group is too broadly defined. For instance, Blacks end up in the middle, but when they are specified as poor blacks or black professionals they move to the lower left and upper right sections that represent contempt and pride, respectively. When Muslim women are specified, as in my study, Muslim women who veil fell into the low competence, low warmth quadrant, and targets wearing a niqab were rated as even lower competence and warmth than those wearing a hijab. Groups in this quadrant (e.g., poor, welfare recipients, and homeless) receive contempt from prejudiced people; they are neither liked nor respected and are seen as incompetent and cold (Fiske, 2010). These findings could reflect some common stereotypes of women who wear a veil. For instance, Bartkowski and Read (2003) suggest that that veil is seen as oppressive. If people view

women who veil as oppressed, they may also think that they are not very competent. Women who veil may also be regarded as reserved or closed-off, which aligns with the low warmth ratings. These stereotypes can be further explored in future research.

Does skin color matter?

For three of the dependent variables, the estimated probability that participants would be able to understand the target's personality fairly well, the Similarity Index and the Status stereotype items, the experimental manipulation of skin tone also produced the hypothesized effects. Participants indicated statistically lower similarity with dark skinned targets than light skinned targets. They also indicated that, as viewed by society, dark skinned targets have lower social status than light skinned targets. These findings support the notion of colorism, or the idea that light skinned people experience social privileges over dark skinned people. It should be noted that there were not as many statistically significant differences based on skin tone as there were for veil coverage, which could suggest that religion, as derived from veil coverage, is a stronger predictor of social bias than race, as derived from skin tone.

This research contributes to the existing literature on intersectionality by examining the intersections between skin tone and veil coverage in terms of social bias toward Muslim women who veil. For three (probability of coming from the same social background, Status and Competition) out of the fourteen dependent variables, there was a statistically significant skin tone X veil interaction. When there was a statistically significant skin tone X veil interaction, while the direction was as hypothesized (as veil coverage increased, so did social bias), the slope of the line was significantly steeper for light skinned targets. While it was hypothesized that dark skinned targets would

experience more social bias than light skinned targets, this was not found in my research. Examination of these interaction effects revealed that veil coverage carried more weight than skin tone. The light skin tone targets did not experience any privilege from their skin tone as evident in the significant increases in social bias as veil coverage increased. In fact, as veil coverage increased, targets with light skin tone experienced increased bias at a higher rate than targets with dark skin.

Even though the results were not always as hypothesized, the factorial experimental design still allowed for an examination of the intersections between race and religion. In fact, this research expands on a previous web experiment (El-Geledi & Bourhis, 2012) by adding a skin tone dimension. In addition, previous research on intersectionality has been largely qualitative in nature. This current research contributes to the understanding of intersectionality by exploring a quantitative measure of intersectionality. Instead of conducting observation or qualitative interviews, I used a factorial web experiment in an attempt to develop a measure of intersectionality. Cho, Crenshaw, & McCall (2013) argue that the future of intersectionality studies will "be dependent on the rigor with which scholars harness the most effective tools of their trade to illuminate how intersecting axes of power and inequality operate to our collective and individual disadvantage." I argue that experimental methodology is one of sociology's most powerful tools. I have used this tool to shed some light on the intersecting forms of bias experienced by Muslim women who veil. In addition, while it is beyond the scope of this research, future studies could consider additional intersections and further examine the impact of gender, sexual orientation, country of origin, native language, etc. on social bias toward Muslim women who veil.

Limitations of the Study and Suggestions for Future Research

Overall, although many of my hypotheses were confirmed and the results of this study help to create a deeper understating of social bias toward Muslim women who veil, there were some limitations. First, in hopes of overcoming socially desirable responses, participants were deceived so that they were unaware of the true purpose of the study (see Chapter Three). Even though participants were led to believe that the study was on person perception and the focus was not on Muslim women who veil, over half of the participants (52%) reported that they were aware of the true purpose of the study in a post-survey question. This knowledge, along with the fact that participants were asked to self-report their answers to questions designed to measure social bias, creates the potential for socially desirable responses. As discussed in Chapter 2, it is not acceptable to be openly prejudiced in contemporary American society (Schwartz, 2008), which could have led to dishonest answers and inaccurate measures of bias. Future research could follow up on this study by measuring social bias in indirect or implicit ways and seeing if similar results are found.

For example, some of the stereotype findings could be further examined with an Implicit Association Test (IAT). This test measures implicit attitudes, or those outside one's conscious awareness, based on the strength of associations between concepts and evaluations or stereotypes. Using a measure of response latency, or reaction time, the ideas is that making a response is easier when closely related items share the same response key (Project Implicit, 2011). Future research could create an IAT both as an evaluation (good/bad) of Muslim women who veil and the further explore stereotypes, such as competence and warmth.

Future research could also follow up on the intersections of race and religion for Muslim women who veil. While it is important to explore ways to quantitatively measure intersectionality, it is also necessary to note that "intersectionality focuses awareness on people and experiences" (MacKinnon, 2013). Such experiences may not be captured in a web survey, so a multi-method approach may be considered to create a complete understanding of the intersecting biases Muslim women who veil face. For instance, qualitative interviews could be conducted with Muslim women who veil in order to understand their experiences regarding social bias in American society. The results of the interviews could be compared with the results of this study to develop an even deeper understanding of social bias toward Muslim women who veil. In addition, future research could further consider the intersection of race/ethnicity. The target faces in this study resemble Arab Muslims. Future research could utilize target faces that reflect Asian or African Muslims to see how results compare.

While the experimental manipulation of veil coverage and skin tone resulted in statistically significant differences in social bias, the addition of the Islamophobia explained a majority of the variance the nine out of the fourteen dependent variables. Future research could explore other variables that might account for differences in ratings of social bias and how those variables may interact with the skin tone and veil factors. For instance, it would be useful to have a measure of political orientation, which could help to determine if aversive racism explains some of the unexpected findings. In addition, measures of religiosity, such as church attendance and involvement, and belief in or support for feminism may also help to explain variation in social bias toward Muslim women who veil. These variables could be added in addition to the Islamophobia

and secularism measures in order to gain a deeper understanding of the sources of social bias toward Muslim women who veil.

Future research is needed to help explain why higher Islamophobia scores resulted in higher social bias ratings, even for the targets with no veil. Some possible explanations may be that Islamophobia is correlated with other traits such as Right-Wing Authoritarianism (RWA). Previous research has found that those high on RWA view the world as a dangerous place, which produces feeling of fear, hostility, and moral superiority (Fiske, 2010). While these feelings are often directed toward outgroup members (e.g., Duckitt, 1993), I suggest that they may extend more generally to any others, besides one's self. Therefore, those high on Islamophobia, like those high on RWA, might be highly critical of others, which could result in more social bias.

Overall, the model R^2 values were not very high. None of the models had an R^2 over .30. This suggests that skin tone, veil, participant sex, and the measures of Islamophobia and secularism only predict a small amount of variance in social bias. These findings suggest that social bias is perhaps not best measured with self-report questions. Future research could explore other measures for social bias, such as the IAT described above. In addition, this research could be followed up with laboratory experiments or observation. Some examples may be to examine how likely people are to volunteer to help a Muslim organization or aid a Muslim women wearing a veil who requests assistance (Fiske, 2010).

The results of the factor analysis for the secularism items also suggest that participants may have responded carelessly. The secularism section was the last section of the study before the demographic questions. Even though the study took no more than

ten minutes to complete, it is possible that participants experienced survey fatigue. Future research could examine the use of a short survey. Furthermore, as recommended by Schmitt and Stults (1985), the survey instructions may be edited to include a warning that some items may be negatively keyed and lengthy sets of items that utilize the same response format may be shortened.

Lastly, the results of this study are not generalizable beyond Iowa State University students. More specifically, since the student sample came from sociology and criminal justice classes, it must be considered that these particular students were not representative of Iowa State students, in general. Future research could follow up with a stratified random sample of Iowa State students including representation from all class years and majors. In addition, the study could be posted on a website like the Social Psychology Network, or even distributed nationally with a sample stratified by social class, education, race, religion, etc. in order to reach a sample of the American public. In some instances, participants in my sample reacted favorably toward veiled targets, this might not be the case for a sample from the general American public. Samples from these various populations would help to gain a more accurate picture of Americans' bias toward Muslim women who veil.

Conclusions

In conclusion, the results of this study have implications for both the measurement of social bias and the understanding of social bias toward Muslim women who veil. One strength of this research is the use of a web experiment to measure social bias. Through the use of random assignment, I have the ability to make causal statements regarding the experimental manipulation. Results suggest that veil coverage is an

important predictor of social bias. When controlling for all other variables, as veil coverage increased, so did social bias. There were also statistically significant differences in social bias based on skin tone. Participants reported significantly less similarity and understanding toward dark skinned targets than light skinned targets. Participants also suggested that dark skinned targets had significant less social status then light skinned targets. When the main effects skin tone and veil coverage interacted, social bias based on veil coverage was more pronounced for light skinned targets. Still, social bias was better predicted by veil coverage than skin tone, which indicated that religion, as derived from veil coverage, was more important in predicting social bias than race, as derived from skin tone. This is an important finding when attempting to understand the main source of social bias toward Muslim women who veil.

This research also makes an important contribution to the study of intersectionality by exploring a way of quantitatively studying the intersection of race and religion. In addition this research found that attitudinal measures, like Islamophobia, are important predictors of social bias toward Muslim women who veil. Islamophobia had an impact on veiled targets; as Islamophobia increased so did social bias. This was not the case for the target with no veil, in which Islamophobia had very little effect, which is apparent in the gradual slope. This study expanded on the findings of a previous web experiment (El-Geledi & Bourhis, 2012) by adding skin tone, as a dimension of race, to the examination of the effects of Muslim women's veil coverage on social bias.

REFERENCES

Ajrouch, K.J. (2007). Global contexts and the veil: Muslim integration in the United States and France. *Sociology of Religion, 68*(3), 321-325.

Ajrouch, K.J. and Kusow, A. (2007). Racial and Religious Contexts: Situational Identities among Lebanese and Somali Muslim Immigrants. *Ethnic and Racial Studies, 30,* 72-94.

Allport, G.W. (1935). Attitudes. In C. Murchison (Ed.), *A handbook of social psychology* (pp. 798 – 844). Worcester, MA: Clark University Press.

Averhart, C.J. & Bigler, R.S. (1997). Shades of meaning; Skin tone, racial attitudes, and constructive memory in African American children. *Journal of Experimental Child Psychology*, 67, 363 – 388.

Bartkowski, J.P. & Read, J.G. (2003). Veiled submission: Gender, power, and identity among Evangelical and Muslim women in the United States. *Qualitative Sociology, 26*(1), 71-92.

Bellah, R. (1991). *The Good Society*. New York: Knopf.

Bellah, R.N., Madsen, R., Sullivan, W., Swindler, A, & Tipton, S. (1985). *Habits of the heart: Individualism and commitment in American society*. Berkeley, CA: University of California Press.

Bem, D. J. (2000). Exotic becomes erotic: Interpreting the biological correlates of sexual orientation. *Archives of Sexual Behavior, 29*, 531-548.

Berscheid, E., & Reis, H. T. (1998) Attraction and close relationships. In D. T. Gilbert, S. T. Fiske, and G. Lindzey (Eds.), Handbook of social psychology (pp. 193-281). New York: McGraw-Hill.

Bloom, P. (2012). Religion, morality, evolution. *Annual Review of Psychology*, *63*, 179-199.

Bodenhausen, G. V., Schwartz, N., Bless, H., & Wanke, M. (1995). Effects of atypical exemplars on racial beliefs: Enlightened racism or generalized appraisals? *Journal of Experimental Social Psychology*, *31*, 48 – 61.

Boundaries in the American Mosaic: Preliminary Findings Report. (2014). Retrieved from https://www.soc.umn.edu/assets/doc/BAMPreliminaryFindingsReport.pdf.

Browne, I. & Misra, J. (2003). The intersection of gender and race in the labor market. *Annual Review of Sociology, 29*, 487 – 513.

Browne, I. (1999). *Latinas and African American women at work: Race, gender and economic inequality*. New York: Russell Sage.

Cainkar, L. (2002). No longer invisible: Arab and Muslim exclusion after September 11. *Middle East Report, 224*, 22-29.

Cainkar, L. (2008). Thinking oustide the box. In A. Jamal and N. Naber (Eds.), *Race and Arab Americans Before and After 9/11: From Invisible Citizens to Visible Subjects* (46-80). Syracuse, NY: Syracuse University Press.

Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a Field of Intersectionality Studies: Theory, Applications, and Praxis. *Signs, 38*(4), 785-810.

Collins, P.H. (1999). *Black feminist thought: Knowledge, consciousness and the politics of empowerment.* London: Harper Collins.

Condon, J.W., & Crano, W.D. (1988). Inferred evaluation and the relation between attitude similarity and interpersonal attraction. *Journal of Personality and Social Psychology, 54*, 789 – 797.

Crenshaw, K. Demarginalizing the intersection of race and sex: A Black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics. *The University of Chicago Legal Forum, 140*, 139-167.

Dasgupta, N., & Greenwald, A. G. (2001). On the malleability of automatic attitudes: Combating automatic prejudice with images of admired and disliked individuals. *Journal of Personality and social Psychology, 36*, 316 – 328.

Devos, T. (2008). Implicit Attitudes 101: Theoretical and Empirical Insights. In W.D. Crano, & R. Prislin (Eds.), *Attitudes and Attitude Change* (pp. 61-86). New York, NY: Taylor & Francis Group.

Dovidio, J. F., & Gaertner, S. L. (2004). Aversive racism. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 1 – 52). San Diego, CA; Elsevier.

Duckitt, J. (1993). Right-wing authoritarianism among white South African students: Its measurement and correlates. *Journal of Social Psychology, 133*, 553-563.

Edgall. P., Gerteis, J., & Hartmann, D. (2006). Athiests as "Other": Moral boundaries and cultural membership in American society. *American Sociological Review, 71*(2), 211-234.

El-Geledi, S. & Bourhis, R.Y. (2012). Testing the impact of the Islamic veil on intergroup attitudes and host community acculturation orientations toward Arab Muslims. *International Journal of Intercultural Relations*, *36*, 694 – 706.

Fazio, R. H., Sanbonmatsu, D. M., Powell, M. C., & Kardes, F. R. (1986). On the automatic activation of attitudes. *Journal of Personality and Social Psychology, 50*, 229-238.

Fiske, S. T. (2010). *Social beings: Core motives in social psychology*. Hoboken, NJ: Wiley.

Fiske, S. T., Bergsieker, H., Russell, A. M., & Williams, L. (2009). Images of black Americans: Then, "them" and now, "Obama!" *DuBois Review: Social Science Research on Race, 6*, 1-9.

Fiske, S.T., Cuddy, A.J.C., Glick, P., Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology, 82*, 878-902.

Francis, L.J., & Greer, J.E. (1992). Measuring Christian moral values among Catholic and Protestant adolescents in Northern Ireland. *Journal of Moral Education, 21*, 59-65.

Frey, D. L., & Gaertner, S. L. (1986). Helping and the avoidance of inappropriate interracial behavior: A strategy that perpetuates a non-prejudiced self-image. *Journal of Personality and Social Psychology, 50,* 1083 – 1090.

Gaernter, S. L., & Dovidio, J. F. (1986). The aversive form of racism. In J.F. Dovidio & S. L. Gaertner (Eds.), Prejudice, discrimination, and racism (pp. 61-88). Thousand Oaks, CA: Academic Press.

Goffman, E. (1963). *Stigma: Notes on the management of spoiled identity*. New York, NY: Simon & Schuster, Inc.

Gottschalk, P., & Greenberg, G. (2008). *Islamophobia: Making Muslims the enemy*. Lanham, MD: Rowan & Littlefield.

Greenwald, A.G., Poehlman, T. A., Uhlmann, E., & Banaji, M. R. (2009). Understanding and using the implicit association test: III. Meta-analysis of predictive validity. *Journal of Personality and Social Psychology, 97*, 14 – 41.

Halliday, F. (1999). *"Islamophobia" reconsidered; Ethnic and Racial Studies, 22*, 892-902.

Haslam, S.A., & McGarty, C. (2004). Experimental design and causality in social psychology research. In C. Sansone, C.C. Morf, & A. T. Panter (Eds.), *The Sage handbook of methods in social psychology* (pp. 237 - 260). Thousand Oaks, CA: Sage Publications.

Henry, P. J., & Sears, D. O. (2002). The symbolic racism 2000 scale. *Political Psychology, 23*, 253-283.

Hughes, B., & Hertel, M. (1990). The significance of color remains: A study of life chances, mate selection, and ethnic consciousness among Black Americans. *Social Forces, 68*, 1105 – 1120.

Hunter, M. (1998). Colorstruck: Skin color stratification in the lives of African American women. *Sociological Inquiry 68*, 517 – 535.

Hunter, M. (2007). The persistent problem of colorism: Skin tone, status, and inequality. *Sociology Compass, 1*(1), 237 – 254.

Illinois Coalition for Immigrant and Refugee Rights. (2003). *Losing ground: The loss of freedom, equality, and opportunity for America's immigrants since September 11.* Chicago, IL: Fred Tsao.

Irmhoff, R. & Recker, J. (2012). Differentiating Islamophobia: Introducing a new scale to measure Islamoprejudice and Secular Islam critique. *Political Psychology, 33*(6), 811 – 824.

Kalkan, K.O., Layman, G.C., & Uslaner, E.M. (2009). "Bands of others"? Attitudes toward Muslims in contemporary American society. *The Journal of Politics, 71*(3), 847-862.

Keddie, N.R. (1990). The past and present of women in the Muslim world. *Journal of World History, 1*, 77-108.

Kieth, V., & Herring, C. (1991). Skin tone and stratification in the Black community. *American Journal of Sociology, 97*, 760 – 778.

Kilbourne, J. (1999). *Deadly persuasion: Why women and girls must fight that additive power of advertising.* New York: Free Press.

Kleg, M, & Yamamoto, K. (1998). As the world turns: Ethno-racial differences after 70 years. *Social Science Journal, 35*, 183 – 190.

Lamont, M. & Molnár, V. (2002). The Study of Boundaries in the Social Sciences. *Annual Review of Sociology, 28*, 167-195.

Lee, S.A., Gibbons, J.A., Thompson, J.M. & Timani, H.S. (2009). The Islamophobia Scale: Instrument development and initial validation. *International Journal for the Psychology of Religion, 19*, 92 – 105.

Lee, S.A., Short, S.D., Yeh, R., Reid, C.A., Gibbons, J.A., & Campbell, M.L., (2013). Fear of Muslims: Psychometric evaluation of the Islamophobia Scale. *Psychology of Religion and Spirituality, 5*(3), 157 – 171.

Lurie, A. (1981). *The Language of clothes*. New York: Vintage Books.

MacKinnon, C. A. (2013). Intersectionality as method: A note. *Signs*, *38*(4), 1019-1030.

Malik, K. (2005, January 7). What hate? The Guardian. Retrieved from http://www.theguardian.com/world/2005/jan/07/religion.islam

McCall, L. (2000). Explaining levels of within-group wage inequality in U.S. labor markets. *Demography, 37,* 415 – 430.

Moreland, R.L. & Beach, S.R. (1992). Exposure effects in the classroom: The development of affinity among students. *Journal of Experimental Social Psychology, 28,* 255 – 276.

Nacos, B.L. and Torre-Reyna, O. (2002). Muslim Americans in the news before and after 9-11. Presented at the symposium "Restless Searchlight: Terrorism, the Media & Public Life." Harvard University.

Nail, P. R. (1986). Toward an integration of some models and theories of social response. *Psychological Bulletin, 100,* 190 – 206.

Nail, P. R., McDonald, G., & Levy, D. A. (2000). Proposal of a four dimensional model of social response. *Psychological Bulletin, 126,* 454 – 470.

Nosek, B. A., & Banaji, M. R. (2001). The go/no-go association task. *Social Cognition, 19*(6), 625-666.

Ozyurek, E. (2005). The politics of cultural unification, secularism, and the place of Islam in the new Europe. *American Ethnologist, 32*, 509-512.

Peek, L. (2005). Becoming Muslim: The Development of a religious Identity. *Sociology of Religion, 66*(3), 215-242.

Pew Research Center. (2011). *Muslim Americans: No signs of growth in alienation or support for extremism.* Retrieved from http://www.people-

press.org/2011/08/30/muslim-americans-no-signs-of-growth-in-alienation-or-support-for-extremism/

Project Implicit. (2011). *Overview*. Retrieved from https://implicit.harvard.edu/implicit/education.html

Read, J.G. and Bartkowski, J.P. (2000). To Veil or Not to Veil?: A Case Study of Identity Negotiation among Muslim Women in Austin, Texas. *Gender & Society, 14*, 395-417.

Reece, D. (1996). Covering and Communication: The Symbolism of Dress among Muslim Women. *The Howard Journal of Communications, 7*, 35-52.

Robinson, R. (2010). Boundary battles: Muslim Women and Community Identity in the Aftermath of Violence. *Women's Studies International Forum, 33*, 365-373.

Samhan, H. H. (1999). Not Quite White: Race Classification and the Arab-American Experience. In M.W. Suleiman (Ed.), *Arabs in America: Building a New Future*. Philadelphia: Temple University Press.

Sax, L.J., Gilmartin, S.K., & Bryant, A.N. (2003). Assessing response rates and nonresponse bias in web and paper surveys. *Research in Higher Education, 44*, 409-432.

Schmitt, N., & Stults, D. M. (1985). Factors defined by negatively keyed items: The result of careless respondents? Applied Psychological Measurement, 9(4), 367-373.

Schuman, H., & Presser, S. (1981). *Questions and answers in attitude surveys: Experiments on question form, wording, and context*. New York: Academic Press.

Schwalbe, M., Godwin, S., Holden, D., Schrock, D., Thompson, S., & Wolkomir, M. (2000). Generic processes in the reproduction of inequality: An interactionist analysis. *Social Forces, 71*(2), 419-452.

Schwarz, N. (2008). Attitude measurement. In W.D. Crano, & R. Prislin (Eds.), *Attitudes and Attitude Change* (pp. 237 – 260). New York, NY: Taylor & Francis Group.

Schwarz, N., Strack, F., & Mai, H. P. (1991). Assimilation and contrast effects in part-whole question sequences: A conversational logic analysis. *Public Opinion Quarterly, 55*, 3-23.

Scirby, O. (2011, August 24). Conversion to Islam one result of post-9/11 curiosity. Huffington Post. Retrieved from http://www.huffingtonpost.com/2011/08/24/post-911-islam-converts_n_935572.html?

Senzai, F. (2012). Engaging American Muslims: Political Trends and Attitudes. *Institute for Social Policy and Understanding*.

Stokes-Guinan, K. (2011). Age and skin tone as predictors of positive and negative racial attitudes in Hispanic children. *Hispanic Journal of Behavioral Sciences, 33(*1), 3 – 21.

Suls, J. (2001). Report from the Editor of PTSB: Turning the Corner! *Dialogue, 16*(4), 28.

Tajfel, H. (1982). Social Psychology of Intergroup Relations. *Annual Review of Psychology, 33*, 1-39.

Tetlock, P.E., Kristel, O.V., Elson, S.B., & Lerner, J. (2000). The psychology of the unthinkable: Taboo trade-offs, forbidden base rates, and heretical counterfactuals. *Journal of Personality and Social Psychology, 78*(5), 853 – 870.

Tocqueville, A. d. (1992). *Democracy in America*. Chicago, IL: University of Chicago Press.

Udry, R., Baumann, K. & Chase, C. (1971). Skin color, status, and mate selection. *American Journal of Sociology 76*, 722 – 33.

Weber, L. (2001). *Understanding race, class, gender, and sexuality: A conceptual framework*. Boston: McGraw-Hill.

Williams, R.H., & Vashi, G. (2007). Hijab and American Muslim women: Creating the space for autonomous selves. *Sociology of Religion, 68*(3), 269-287.

Wittenbrink, B., Judd, C. M., & Park, B. (1997). Evidence for racial prejudice at the implicit level and its relationship with questionnaire measures. *Journal of Personality and Social Psychology, 72*, 262-274.

Zanna, M. P., & Rempel, J. K. (1988). Attitudes: A new look at an old concept. In D. Bar-Tal & A. Kruglanski (Eds.), *The social psychology of knowledge* (pp. 315 – 334). Cambridge, UK: Cambridge University Press.

APPENDIX A

INVITATION EMAIL

Dear Student,

You are invited to participate in a brief web study regarding person perception. The survey has been approved by the Institutional Review Board and is being conducted by members of the Sociology Department at Iowa State University.

Your participation in this survey is entirely voluntary, and you can withdraw from the research by exiting the survey at any time without any penalty. All of your responses will be kept confidential. No personal identification will be associated with your responses in any reports of data.

Your responses to this survey are very important to success of this research. We understand that you are very busy, and this survey will only take approximately 15 minutes of your time.

If you wish to participate in this research, please click the survey link below.

Thank you for your time and cooperation in helping us conduct this research. Should you have any further questions or comments, please feel free to contact me at amyshin@iastate.edu Or you can also contact Dr. Wendy Harrod, the advisor of this research, at wharrod@iastate.edu.

Many thanks,

Amy Shin

Dr. Wendy Harrod

APPENDIX B

INFORMED CONSENT DOCUMENT

Title of study: Person Perception

Investigators: Amy L. Shin and Dr. Wendy Harrod

This form describes a research project. It has information to help you decide whether or not you wish to participate. Research studies include only people who choose to take part—your participation is completely voluntary.

Introduction:
The purpose of this study is to gain a better understanding of how we perceive others.

You are being invited to participate in this study because you are a current student at Iowa State University. You should not participate if you are under 18 years of age.

Description of procedures:
If you agree to participate in this study, you will view images and will be asked to respond to a series of questions regarding your attitudes toward the people in the photos. You will also be asked questions about religion and secularism. This study should take no more than 15 minutes to complete.

Risks:
While there are no foreseeable risks associated with this study, some of the study items may make you feel uncomfortable. If you feel uncomfortable at any point, you may immediately stop without penalty.

Costs and Compensation:
If your professor makes it available, you may receive extra credit points. It is hoped that information gained through this study will benefit society by generating a more complete understanding of how we perceive others.

You will not have any costs from participating in this study. Besides extra credit, if applicable, you will not be compensated for participating in this study. If you decide not to participate in this study, your professor will make another opportunity for extra credit available to you.

Participant rights:
Participating in this study is completely voluntary. You may choose not to take part in the study or to stop participating at any time, for any reason, without penalty or negative consequences. You can skip any questions that you do not wish to answer. Your choice of whether or not to participate will have no impact on you as a student in any way.

If you have any questions about the rights of research subjects or research-related injury,

please contact the IRB Administrator, (515) 294-4566, IRB@iastate.edu, or Director, (515) 294-3115, Office for Responsible Research, Iowa State University, Ames, Iowa 50011.

Confidentiality:
Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies, auditing departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy study records for quality assurance and data analysis. These records may contain private information.

To further ensure confidentiality to the extent permitted by law, the following measures will be taken: (a) your data will be combined with data collected from other participants so that no individual information can be identifiable, and (b) all records will be either kept in a locked filing cabinet or password protected computer files.

Since responses will be anonymous, the investigators, faculty and your professor will not have any knowledge of individual responses.

Questions:
You are encouraged to ask questions at any time during this study. For further information *about the study*, contact Amy L. Shin at amyshin@iastate.edu or Dr. Wendy Harrod at wharrod@iastate.edu or 515-294-9898.

CONSENT TO PARTICIPATE:
By clicking "Next" below you are indicating that you are at least 18 years of age, that you voluntarily agree to participate in this study, that the study has been explained to you, and that you have been given the time to read the document and that your questions have been satisfactorily answered. Print this page if you wish to have a copy of this document for your records.

APPENDIX C

COLLAGE OF FACES

APPENDIX D

COLLAGE OF RELIGIOUS SYMBOLS

APPENDIX E

DEBRIEGING DOCUMENT

Thank you very much for completing this study!

Purpose of the Study: Earlier in the study, you were informed you were participating in a study on person perception and that the purpose of the study was to gain a better understanding of how we perceive others. While this study is indeed about person perception, the main aim of the research is to better understand social bias by creating a measure of social bias toward Muslim women and understanding the source of such bias.

Unfortunately, in order to accurately measure bias, we could not provide you with all of these details prior to your participation. This ensures that your reactions in this study were spontaneous and not influenced by prior knowledge about the purpose of the study. If we had told you the actual purposes of our study, your responses could have been affected. We regret withholding the full purpose of the study, and hope you understand the reason for it.

Confidentiality: Please note that although the purpose of this study is more specific from the originally stated purpose, everything else on the consent form is correct. This includes the ways in which we will keep your data confidential.

Records identifying participants will be kept confidential to the extent permitted by applicable laws and regulations and will not be made publicly available. However, federal government regulatory agencies, auditing departments of Iowa State University, and the Institutional Review Board (a committee that reviews and approves human subject research studies) may inspect and/or copy study records for quality assurance and data analysis. These records may contain private information.

To further ensure confidentiality to the extent permitted by law, the following measures will be taken: (a) your data will be combined with data collected from other participants so that no individual information can be identifiable, and (b) all records will be either kept in a locked filing cabinet or password protected computer files.

Now that you know the full purpose of our study and are fully informed, you may decide that you do not want your data used in this research. If you would like your data removed from the study and permanently deleted please select the "remove my responses" button below. Whether you agree or do not agree to have your data used for this study, you will still extra credit for your participation.

Questions and Concerns:

If you have any questions or concerns regarding this study, its purpose or procedures please feel free to contact the researcher(s): Amy L. Shin at amyshin@iastate.edu or Dr. Wendy Harrod at wharrod@iastate.edu.

If you were upset by any of the questions in this study and would like to talk to a counselor, you may contact Iowa State University Student Counseling Services at 515-294-5056 or visit the third floor of Student Services Building (north of Friley Hall).

APPENDIX F

ISLAMOPHOBIA-AB AND ISLAMOPHIBIA-CG ITEMS

Islam is the religious faith of Muslims. Please indicate the extent to which you disagree or agree with the following items about Islam.

1. I would support any policy that would stop the building of new mosques (Muslim place of worship) in the U.S. (AB)
2. If possible, I would avoid going to places where Muslims would be. (AB)
3. I would become extremely uncomfortable speaking with a Muslim. (AB)
4. Just to be safe, it is important to stay away from places where Muslims could be. (AB)
5. Just to be safe, it is important to stay away from places where Muslims could be. (AB)
6. If I could, I would avoid contact with Muslims. (AB)
7. If I could, I would live in a place where there were no Muslims. (AB)
8. Muslims should not be allowed to work in places where many Americans gather such as airports. (AB)
9. Islam is a dangerous religion. (CG)
10. The religion of Islam supports acts of violence. (CG)
11. Islam supports terrorist acts. (CG)
12. Islam is anti-American. (CG)
13. Islam is an evil religion. (CG)
14. Islam is a religion of hate. (CG)
15. I believe that Muslims support the killings of all non-Muslims. (CG)
16. Muslims want to take over the world. (CG)

APPENDIX G

ISLAMOPREJUDICE INDEX

Please indicate the extent to which you disagree or agree with the following items.

1. I think it is wrong to see the Islamic world as united in its attitudes and values.
2. Muslim cultures around the world have such fundamentally different values, that it is difficult to identify common aims and ideals.
3. Islam and Christianity share the same universal ethical principles.
4. Islam is an archaic religion, unable to adjust to the modern world.
5. Compared to others, Muslims are rather irrational.
6. Compared to other religious and philosophical approaches, Islam is rather primitive.
7. I think the Islamic religion predisposes its followers to terrorism.
8. Muslims and their religion are so different from us that it would be naive to demand an equal access to all positions in society.
9. Wherever a large number of Muslims live and attend schools, Islamic religious education should be offered.

SECULAR CRITIQUE OF ISLAM

Please indicate the extent to which you disagree or agree with the following items.

1. The separation of church and state is an American ideal that Islam should accept.
2. Although some women voluntarily wear a veil, for others it is a coercive dress code.
3. Rigid Islamic gender role distinctions should not dictate how we teach physical education, provide medical services, or protect public safety.
4. It is wrong to ignore the threat of fundamentalist Islam.
5. Universal human rights and certain legal protections should always stand above religious rules.

6. As with any other religion one must criticize Islam and its leaders when they interfere with non-religious issues.

APPENDIX H

SECULARISM ITEMS

Secularism is the belief that religion should not play a role in government, education or other public parts of society. Please indicate the extent to which you disagree or agree with the following items about secularism.

1. Religion has done more harm than good in the history of humankind.
2. Religion should not dictate a way of living and a moral code for everyone.
3. The fact that some people have religious objection to abortion, gay rights, evolution, etc. should not influence public policy for everyone.
4. Public schools should teach religion and lead students in prayer to God.
5. Religious symbols of any kind should be banned from public schools and government buildings.
6. Government officials and judges should follow Christianity-based principles.
7. The government should be independent of and hostile to religion of any kind.
8. Individuals may be influenced by their personal religious beliefs but organized religion should stay out of the political process.
9. Politicians should keep their religious beliefs to themselves and the state should not endorse any religious tradition.
10. It is important for the President of the United States to have strong religious beliefs.
11. Religious leaders should not endorse political candidates or discuss political issues.
12. Religious groups have gone too far in trying to impose their religious values on the country.
13. Circumcision of boys or girls is child abuse and should be banned.
14. Animal sacrifice is barbaric and should be banned.
15. Churches should stay out of politics.

APPENDIX I

DEMOGRAPHIC QUESTIONS

What is your age?

What is your sex?

- Female
- Male

Are you an international student?

- No
- Yes

What is your classification in college?

- First Year
- Sophomore
- Junior
- Senior
- Graduate Student
- Other

What is your major area of study?

- Biological Sciences or Life Sciences
- Business
- Communications
- Computer & Information Science
- Criminal Justice
- Education
- Engineering
- Family Studies
- Health Professions or Related Sciences
- Humanities
- Liberal Arts

- Mathematics
- Physical Sciences
- Psychology
- Sociology
- Other Social Sciences or History
- Visual or Performing Arts
- Other

What college are you in?

- Agricultural and Life Sciences
- Business
- Design
- Engineering
- Human Sciences
- Liberal Arts and Sciences
- Veterinary Medicine
- Other

What is your ethnicity?

- Hispanic or Latino
- Not Hispanic or Latino
- Unknown

What is your race?

- American Indian/Alaska Native
- East Asian
- South Asian
- Native Hawaiian or other Pacific Islander
- Black or African American
- White
- More than one race: Black/White
- More than one race: Other

- Other or unknown

What is your religious affiliation?

- Christian - Protestant - Mainline Church
- Christian - Protestant - Evangelical Church
- Christian - Protestant - Historical Black
- Christian - Catholic
- Christian - Mormon
- Christian - Jehovah's Witness
- Christian - Russian Orthodox Church
- Christian - Greek Orthodox Church
- Christian - Other
- Jewish - Reform
- Jewish - Conservative
- Jewish - Orthodox
- Buddhist - Zen
- Buddhist - Theravada
- Buddhist - Tibetan
- Buddhist - Other
- Muslim - Shia
- Muslim - Sunni
- Muslim - Other
- Hindu
- Unitarian
- New Age
- Native American Religion
- Unaffiliated - Athiest
- Unaffiliated - Agnostic
- Any other religion not listed above

APPENDIX J

VARIABLE DESCRIPTIONS

Independent Variables		
Name	**Description**	**Variable Properties**
Skin	Skin tone of randomly assigned image.	Light skin or dark skin
Veil	Head covering of randomly assigned image.	No veil, hijab or niqab
Sex	Participant sex	Male (1) or female (0)
Islamophobia - AB	Affective-behavioral components of Islamophobia	Sum of responses to eight items; values range from 8 to 40
Islamophobia - CG	Cognitive components of Islamophobia	Sum of responses to eight items; values range from 7 to 40
Islamoprejudice	Islamoprejudice	Average of nine items; values range from 1.33 to 4.25
Secular Critique	Secular critique of Islam	Average of six items; values range from 1 to 5
Secularism	Items designed to measure belief in secularism	Average of 10 items; values range from 1 to 5
Age	Participant age	18 – 65+
International	Participant international student status	Yes or no
Class	Participant class year	First year, sophomore, junior, senior, graduate student, other
Major	Participant major	See Appendix I
College	Participant college	See Appendix I
Ethnicity	Participant ethnicity	See Appendix I
Race	Participant race	See Appendix I
Religion	Participant religious affiliation	See Appendix I

Dependent Variables		
Name	**Description**	**Response Categories**
Attraction 1	Estimate the probability that you would like her and become friends with her.	0 – 100%; 11-point scale
Attraction 2	Estimate the probability that you would enjoy spending time with her.	0 – 100%; 11-point scale
Attraction 3	Estimate the probability that you would work with her on some project of mutual interest.	0 – 100%; 11-point scale
Attraction Index	A single index of attraction based on ratings of: interesting-boring, unattractive-attractive, unselfish-selfish, unpopular-popular, unconceited-conceited, unintelligent-intelligent, warm-cold, unsuccessful-successful, honest-dishonest, insincere-sincere	7-point scale; higher values indicate greater attraction
Similarity Index	A single similarity index based on the prompt: Compare yourself with this woman. For each trait, rate whether it is stronger in your personality or stronger in hers: interestingness, attractiveness, selfishness, popularity, conceitedness, intelligence, warmth, successfulness, honesty, sincerity.	0 to 3; higher values indicate greater perceived similarity
Similarity 1	Estimate the probability that she would turn out to come from the same social background as myself.	0 – 100%; 11-point scale
Similarity 2	Estimate the probability that I would be able to understand her personality fairly well.	0 – 100%; 11-point scale
Similarity 3	Estimate the probability that I would discover that her	0 – 100%; 11-point scale

	plans for the future are similar to my own.	
Social Distance	Please select the highest degree of association you would desire to have with someone like her: 1 = to marry into my family, to have as best friend, to have as next-door neighbor, to work in the same office, , to have as a speaking acquaintance only, to have as visitor to my country, 7 = to keep out of my country.	7-point scale; higher values indicate greater desired social distance
Moral Outage	And index created by averaging the responses to "Please indicate your reaction to members of this group:" should be banned – should be permitted, highly moral – highly immoral, highly upsetting – not at all upsetting, not at all sad – extremely sad, not at all tragic – tragic, not at all offensive – highly offensive, no anger – great deal of anger, very irrational – very rational, completely crazy – completely sane.	7-point scale; higher values indicate higher moral outrage
Competence	An index of the following characteristics to the prompt: As viewed by society, how _____ is someone like her? Competent, confident, independent, competitive, intelligent.	5-point scale; Not at all – extremely; higher values indicate higher perceived competence
Warmth	An index based on the average rating of the following characteristics to the prompt: As viewed by society, how _____ is someone like her? Tolerant, warm, good-natured, sincere	5-point scale; Not at all – extremely; higher values indicate higher perceived warmth
Status	An index based on the average rating of the	5-point scale; Not at all – extremely; higher

	following characteristics to the prompt: As viewed by society: how prestigious are the jobs typically achieved by people like her, how economically successful have people like her been, how well educated are people like her?	values indicate higher perceived status
Competition	An index based on the average rating of the following characteristics to the prompt: As viewed by society: if people like her get special breaks (such as preference in hiring decisions), this is likely to make things more difficult for people like me; the more power people like her have, the less power people like me are likely to have; resources that go to people like her are likely to take away from the resources of people like me.	5-point scale; Not at all – extremely; higher values indicate higher perceived competition

APPENDIX K

CORRELATION TABLE

	Sex	Attraction 1	Attraction 2	Attraction 3	Attraction Index	Similarity 1	Similarity 2
Sex	1.00						
Attraction 1	-.13*	1.00					
Attraction 2	-.14**	.90***	1.00				
Attraction 3	-.06	.68***	.71***	1.00			
Attract Index	-.18**	.41***	.46***	.40***	1.00		
Similarity 1	-.08	.35***	.27***	.22***	-.04	1.00	
Similarity 2	-.08	.59***	.57***	.51***	.28***	.47***	1.00
Similarity 3	-.21***	.49***	.50***	.41***	.22***	.51***	.64***
Similarity Index	-.12*	.29***	.29***	.23***	.20***	.05	.19**
Social Distance	.14**	-.47***	-.51***	-.39***	-.34***	-.22***	-.43***
Moral Outrage	.15**	-.31***	-.35***	-.27***	-.30***	-.19**	-.35***
Competence	-.005	.11*	.07	.09	.03	.34***	.16**
Warmth	.05	.06	.05	.12*	.19**	.15**	.10*
Status	-.04	.07	.02	.05	.01	.34***	.06
Competition	.06	-.04	-.05	-.003	.05	-.21***	-.07
Islamophobia - AB	.22***	-.36***	-.39***	-.29***	-.26***	-.11*	-.39***
Islamophobia - CG	.15**	-.29***	-.31***	-.24***	-.22***	-.13*	-.33***
Islamoprejudice	.11*	-.33***	-.37***	-.23***	-.30***	-.06	-.31***
Secular Critique	.04	-.07	-.03	.04	.02	-.09	-.05
Secularism	-.02	.03	.06	.12*	.09	-.07	-.0005

	Similarity 3	Similarity Index	Social Distance	Moral Outrage	Competence	Warmth	Status
Sex							
Attraction 1							
Attraction 2							
Attraction 3							
Attraction Index							
Similarity 1							
Similarity 2							
Similarity 3	1.00						
Similarity Index	.29***	1.00					
Social Distance	-.47***	-.29***	1.00				
Moral Outrage	-.32***	-.14**	.41***	1.00			
Competence	.15**	-.09	.01	-.04	1.00		
Warmth	.13*	-.07	-.02	-.15*	.63***	1.00	
Status	.11*	.02	.01	-.06	.63***	.47***	1.00
Competition	-.08	-.06	.09	.13*	-.17**	-.18**	-.19**
Islamophobia AB	-.33***	-.19**	.48***	.43***	-.02	-.06	-.02
Islamophobia CG	-.29***	-.17**	.39***	.41***	-.01	-.04	.05
Islamoprejudice	-.29***	-.22***	.45***	.41***	-.02	-.06	-.02
Secular Critique	-.07	-.08	.06	.14**	-.02	-.02	-.06
Secularism	.02	.05	-.04	-.05	-.10	-.09	-.10

	Competition	Islamo-phobia AB	Islamo-phobia CD	Islamo-prejudice	Secular critique	Secularism
Sex						
Attraction 1						
Attraction 2						
Attraction 3						
Attraction Index						
Similarity 1						
Similarity 2						
Similarity 3						
Similarity Index						
Social Distance						
Moral Outrage						
Competence						
Warmth						
Status						
Competition	1.00					
Islamophobia AB	.16*	1.00				
Islamophobia CG	.12*	.76***	1.00			
Islamoprejudice	.14*	.67***	.69***	1.00		
Secular Critique	.07	.12*	.16**	.14*	1.00	
Secularism	.02	-.16**	-.18**	-.18**	.39***	1.00

Note: *p<.05; **p<.01; ***p<.001; Ns range from 394 to 350 due to missing data.

APPENDIX L

FACTOR ANALYSIS OF SECULARISM ITEMS

Factor loadings for exploratory factor analysis with varimax rotation of secularism items.

Item	Factor 1	Factor 2
Secularism 1	**.68**	.30
Secularism 2	**.62**	.46
Secularism 3	**.59**	.54
Secularism 4	.15	**.83**
Secularism 5	**.64**	.15
Secularism 6	.13	**.83**
Secularism 7	**.71**	-.09
Secularism 8	**.59**	.48
Secularism 9	**.64**	.47
Secularism 10	.18	**.80**
Secularism 11	**.67**	.07
Secularism 12	**.72**	.41
Secularism 15	**.73**	.38

Factor loadings for exploratory factor analysis of secularism items with negatively keyed items removed.

Item	Factor 1
Secularism 1	.74
Secularism 2	.78
Secularism 3	.79
Secularism 5	.62
Secularism 7	.56
Secularism 8	.77
Secularism 9	.80
Secularism 11	.62
Secularism 12	.83
Secularism 15	.83